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The Bathurst Bay Hurricane: Media, Memory and Disaster

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Abstract

In 1899, one of the most powerful cyclones recorded struck the eastern coast of Cape York, Queensland, resulting in 298 known deaths, most of whom were foreign workers of the Thursday Island pearling fleets. Today, Australia's deadliest cyclone is barely remembered nationally, although there is increasing interest internationally in the cyclone's world record storm surge by scientists studying past cyclones to assess the risks of future disasters, particularly from a changing climate. The 1899 pearling fleet disaster, attributed by Queensland Government meteorologist Clement Wragge to a cyclone he named *Mahina*, has not until now been the subject of scholarly historical inquiry. This thesis examines the evidence, as well as the factors that influenced how the cyclone and its disaster have been remembered, reported, and studied.

Personal and public archives were searched for references to, and evidence for, the event. A methodology was developed to test the credibility of documents and the evidence they contained, including the data of interest to science. Theories of narrative and memory were applied to those documents to show how and why evidence changed over time. Finally, the best evidence was used to reconstruct aspects of the event, including the fate of several communities, the cyclone's track, and the elements that contributed to the internationally significant storm tide.

The thesis concludes that powerful cultural narratives were responsible for the nation forgetting a disaster in which 96 percent of the victims were considered not to be citizens of the anticipated White Australia. Cultural narratives, coupled with media errors, were responsible for the changing, over time, of much of the data. As a result, most data for this cyclone in official government and scientific databases differ significantly from the best evidence and primary source data. This thesis demonstrates how historical inquiry can produce better evidence to help science study historic events and help disaster managers better prepare for future disasters.

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LIST OF ABBREVIATIONS

BOM	Australian Bureau of Meteorology
COAG	Council of Australian Governments
CQUP	Central Queensland University Press
HURDAT	US National Hurricane Centers Hurricane Database
IPCC	Intergovernmental Panel on Climate Change
JCU	James Cook University
MSQ	Maritime Safety Queensland
NAA	National Archives of Australia
NOAA	US National Oceanic and Atmospheric Administration
<i>NQR</i>	<i>North Queensland Register (Townsville)</i>
QBDM	Queensland Registry of Births Deaths and Marriages
QSA	Queensland State Archives
QVP	Queensland Legislative Assembly Votes and Proceedings
SLQ	State Library of Queensland
<i>SMH</i>	<i>Sydney Morning Herald</i>
UQ	University of Queensland
UQP	University of Queensland Press
WMO	World Meteorological Organization

INTRODUCTION

On the 4th and 5th of March, 1899, the East coast of Queensland, in the neighbourhood of Princess Charlotte Bay, between 13deg. 30min. and 14deg. 30min. S.L. was visited by a terrific hurricane, which destroyed vegetation on the shore, wrecked a lightship, schooners, and caused the loss of over 300 lives.¹

With this sentence, the anonymous author of the booklet *The Pearling Disaster, 1899: A Memorial* begins to describe Australia's deadliest recorded cyclone.² This description marks the point at which the uncontested evidence ends and the contested evidence begins. The memorial booklet was written to provide, "some account of the Europeans who were lost therein ... to the immediate relatives of the deceased and to others interested. The information has been compiled from press and official reports and from the testimony of survivors."³ As such, it is a compilation of individual memories and newspaper reports influenced by cultural, including racial and political, narratives. The pearling disaster, also known as the Bathurst Bay Hurricane and the 1899 cyclone, has been attributed by Queensland Government meteorologist Clement Wragge to a cyclone he named *Mahina*.⁴ Wragge is credited with being the first to begin the convention of naming tropical storms and it is significant that he used a literary device of personifying weather phenomena, because this thesis will show that literary and media narratives have significantly changed the historical record for this disaster.⁵

The 1899 cyclone, as a phenomenon, holds a significant place in international and national scientific and disaster-related records. The cyclone holds the current world record for a storm tide; 13 metres (also recorded as 42 feet).⁶ It is considered

¹ Anonymous, *The Pearling Disaster, 1899: A Memorial*, Brisbane: Outridge Printing Company, 1899, 9.

² As will be described in Chapter Two, the publisher of the booklet is Frederick Andrew Outridge. His brother Percival Pitman Outridge can be identified as an author of sections of the booklet.

³ Ibid.

⁴ I will refer to the event as the 1899 cyclone, unless the cyclone's name, *Mahina*, is more relevant. As will be shown in Chapter Two, *Mahina* is the name of one of the cyclones Wragge retrospectively blamed for the disaster.

⁵ Peter Adamson, "Clement Lindley Wragge and the Naming of Weather Disturbances", *Weather*, 58, No. 9, September 2003, 359–363.

⁶ Jonathan Nott, Camilla Green, Ian Townsend, and Jeffrey Callaghan, "The World Record Storm Surge and the Most Intense Southern Hemisphere Tropical Cyclone: New Evidence and Modeling", *Bulletin of the American Meteorological Society*, 95, No. 5, May 2014, 757–765; World Meteorological

Australia's deadliest cyclone for having killed more than 400 people.⁷ Aside from epidemics and heat waves, the cyclone that struck Cape York Peninsula in 1899 is Australia's deadliest natural disaster. Although natural disasters are part of Australian identity,⁸ the 1899 cyclone, one of the most dramatic and destructive, was never positioned as a national tragedy and failed to enter the nation's social memory.

Partly because it was a little-remembered event, and had all the elements for "a good story", I began to research it for a novel that was published in 2008.⁹ *The Devil's Eye* was a dramatic recreation, fiction based on fact, of the 1899 cyclone that had struck Bathurst Bay on Cape York Peninsula.¹⁰ I was a journalist and had worked in North Queensland where cyclones were part of the social narrative and cultural identity. When I spoke to local meteorologists, they would sometimes mention the 1899 cyclone in the context of what they considered to be a worst-case scenario, but I observed that people even in cyclone-aware North Queensland communities knew little, if anything, about the details of this cyclone. It became obvious, in researching the cyclone for a work of fiction, that few severe cyclones in recorded Australian history, before the age of satellites, had been so well observed, and yet there appeared to have been no previous attempt to find the primary sources for those observations. For an internationally-significant event, the historical record appeared to be based almost entirely on secondary sources and it had not attracted serious scholarly attention by historians. Researching beyond *The Pearl*

Organization (WMO), "Tropical Cyclone: Largest Storm Surge associated with Tropical Cyclone", *WMO World Weather and Climate Extremes Archive*, <https://wmo.asu.edu/content/tropical-cyclone-largest-storm-surge-associated-tropical-cyclone> (accessed 17 March 2019). Since beginning this thesis, the WMO began an initiative to increase awareness of storm tides. See <https://public.wmo.int/en/media/news/wmo-acts-storm-surges> (accessed 26 May 2016). The Coastal Inundation Forecasting Project is coordinated by the Joint WMO-Intergovernmental Oceanographic Commission, focussing mainly on the US east coast.

⁷ Australian Institute for Disaster Resilience, "Cyclone Mahina 1899", *Disaster Resilience Knowledge Hub*, <https://knowledge.aidr.org.au/resources/cyclone-cyclone-mahina-cape-york-queensland> (accessed 7 February 2019); Guinness World Records Limited, "Highest Storm Surge", *Guinness World Records 2014*, New York: Bantam, 2014, 107.

⁸ Brad West and Philip L. Smith, "Natural Disasters and National Identity: Time, Space and Mythology", *Australian and New Zealand Journal of Sociology*, 33, No. 2, August 1997, 205–215, <http://search.informit.com.au/documentSummary;dn=980201378;res=IELAPA> (accessed 7 February 2019).

⁹ There are some elements to a "good story" on which writers and journalists generally agree. It often includes conflict, drama, something new or surprising, and it must be relevant to an audience. The literary non-fiction narrative will be discussed further in Chapter Four.

¹⁰ Ian Townsend, *The Devil's Eye*, Pymble, NSW: Fourth Estate (HarperCollins), 2008.

Disaster, 1899: A Memorial (hereafter referred to as the Outridge booklet), it was also clear that there were differences between what the official records stated as fact (for example, the cyclone's central pressure, the height of the storm tide, and the death toll) and what the earliest primary source evidence showed.

As mentioned, many official sources today report a death toll of 400, but contemporary reports show 100 fewer deaths.¹¹ The central air pressure of the cyclone is listed in databases as 914 hectopascals (hereafter written as 914hPa, originally recorded as 27 inches of mercury, or 27inHg). However, the captain of the schooner *Crest of the Wave* had reported a low pressure of 880hPa (26inHg).¹² Depending on which scientific paper is cited, the storm tide associated with the cyclone is listed as somewhere between 12.19 and 14.6 metres, but the original sources for the data are often not clear. They appear to stem from a report in the Outridge booklet that was copied from a newspaper article based on a letter referring to a conversation in which the height of the water was estimated, not measured. The original letter on which the surge height was based stated that the man who reported it, John Martin Kenny, was camping "40 feet [12.19 metres] above sea level" and described the sea rising to his waist.¹³ Whether the height of the storm tide was 12.19, 13, or 14.6 metres does matter because, if used as empirical evidence for scientific studies, the measurement chosen will affect the findings of that study. A difference of two metres has significant implications for coastal communities preparing for storm tide impacts.

Apart from the Outridge booklet, there are two other works commonly cited in literature to support the scientific data. The first is a 1958 scientific reconstruction of the event in an article in a scientific journal by Australian meteorologist Herbert E.

¹¹ Anonymous 1899. The Outridge booklet reports 307 deaths. See also George Bennett, "Return Giving Names and Nationality of Persons Belonging to Pearling Fleet Lost in Hurricane of 4th and 5th March, 1899, in Neighbourhood of Cape Melville", in T. M. Almond, "Report on the Marine Department for the Year 1898–1899", *Queensland Legislative Assembly Votes and Proceedings* (hereafter QVP), 3, 24 September 1899, 24. Bennett reports 247 names.

¹² William Field Porter, "The Great Hurricane at Queensland. A Struggle for Life. An Aucklander and His Wife and Child. Forcing the Blacks to the Pumps", *New Zealand Herald* (Supplement), 1 April 1899, 1.

¹³ A. R. Vidgen, "Northern Hurricanes", *Telegraph* (Brisbane), 17 April 1899, 5.

Whittingham.¹⁴ The second is a dramatic recreation of the disaster in a non-fiction anthology entitled *Cyclone*, by Queensland journalist Hector Holthouse.¹⁵ Both rely heavily on the Outridge booklet for their data and beg the question; how reliable is the Outridge booklet as a primary source for scientific as well as historical information?

There were also questions about why the 1899 cyclone has been left out of the narratives of Australian disasters. For example, in examining climate in relation to culture, the National Museum of Australia's 2005 publication, *A Change In The Weather: Climate And Culture In Australia*, did not mention cyclone *Mahina*, but described cyclone *Tracy* as "the worst storm in recorded Australian history."¹⁶ In the Australian Bureau of Meteorology's (BOM) selected list of historic impacts along the east coast of Queensland, the 1899 cyclone is missing, while other major impacts are described.¹⁷ The deep and long-standing separation of the disaster from Australia's cultural narratives persists.

This lapse in collective memory and the quoting, when articles were written, of data from secondary sources have practical implications not just for the understanding of history, but for its application to disaster management. For example, environmental risk scientist Ken Granger observed that a community's memory of previous disasters was vital to disaster management in that it helped to "overcome the inherent problem that human memory tends to be significantly shorter than the return period of most hazard phenomena."¹⁸

Historians will debate memory's representations of history, but scientists rely on the historical record for data. In the case of the 1899 cyclone, what is remembered

¹⁴ H. E. Whittingham, "The Bathurst Bay Hurricane and Associated Storm Surge", *Australian Meteorological Magazine*, 23, 1958, 4–36.

¹⁵ Hector Holthouse, *Cyclone*, Adelaide: Rigby, 1971, 4–15.

¹⁶ Bill Bunbury, "Cyclone Tracy: Voices on the Wind", in Tim Sherratt, Tom Griffiths, and Libby Rodin (eds), *A Change in the Weather: Climate and Culture in Australia*, Canberra: National Museum of Australia Press, 2005, 165–173. Bunbury examines cyclone *Tracy*, "the worst storm in recorded Australian history."

¹⁷ Australian Government, "Historical Impacts Along the East Coast", Canberra: BOM, n. d. <http://www.bom.gov.au/cyclone/history/eastern.shtml> (accessed 3 February 2017).

¹⁸ Ken Granger, "An Information Infrastructure for Disaster Management in Pacific Island Countries", *Australian Journal of Emergency Management*, 15, No. 1, Autumn 2000, 25.

today does not always reflect the best evidence from 1899, and this is a problem for disaster management. For example, the officially recorded death toll is 400,¹⁹ but this is a significant increase on the 307 originally reported in the Outridge booklet.²⁰ The difference in the numbers will be shown in Chapter Three of this thesis to be based on the addition of 100 Aboriginal deaths in 1971.²¹ As stated, the central pressure of the cyclone is officially 914hPa (27inHg), but the captain of the *Crest of the Wave*, who reported the observation on which the record is based, insisted it was lower; 880hPa (26inHg). Why the discrepancy? The difference between these figures is not trivial. As Granger states, it has an impact on how communities remember past, and prepare for future, cyclones.²²

Questions of empirical evidence lead to questions of their context in social memory, as well as the impact that cultural and political narratives have on what communities accept as the historical record. As mentioned, the pearling disaster has not been positioned as a national tragedy. Why has it been overlooked in discourses on Australian disasters?²³ A memorial at the All Souls St Bartholomew Quetta Memorial Church on Thursday Island names seven white men who drowned, but not the “295 coloured men” who also drowned.²⁴ A memorial at Bathurst Bay names 12 Europeans, but none of “Over 300 Coloured Men Drowned.”²⁵ Who were the “coloured men”, where did they come from, and what memory exists of them?²⁶ The names of most were known at the time, so why were they left off the memorials? The answer has its origins in the political and social attitudes towards race in the late 19th and early 20th centuries, and I will argue that the lack of recognition in the 21st century is a continuation of those original narratives. There is evidence that the stories journalists told about the event were “confused with historical narratives”, as

¹⁹ Australian Institute for Disaster Resilience, “Cyclone Mahina 1899”.

²⁰ Anonymous 1899, 10.

²¹ Holthouse 1971, 13.

²² Granger 2000, 25.

²³ See, for example, Bunbury 2005; Australian Institute for Disaster Resilience, “Cyclone Mahina 1899”.

²⁴ Text of the memorial plaque on Thursday Island.

²⁵ Text of the memorial monument at Bathurst Bay.

²⁶ The term “coloured” was used by contemporary observers to describe people not considered to be “white”, or to describe people of mixed race. It was widely used after the cyclone to describe the non-European crews. Where possible, I use the term “non-European”, but the contemporary term is often difficult to avoid in its contemporary context.

American historian Hayden White warns.²⁷ In explaining how narratives about the pearling disaster have changed, this thesis will reconstruct the disaster from the best evidence.

This thesis investigates the original records to determine the strength of the evidence on which the Outridge booklet, and the subsequent historical record, was based. An exhaustive search for references to the disaster reveals where narratives have diverged over time. This thesis, then, considers how and why the disaster has been both overlooked and the evidence for it changed.

Finally, the thesis reconsiders the event not only within the theories of media and memory, but the application of those theories to current social narratives and disaster preparation. In the case of the pearling disaster, its significance has been both exaggerated and understated. For instance, the thesis explains the confusion over a significant scientific anomaly; why a cyclone reported to have a central pressure of 914hPa — far from the most intense recorded — managed to produce a world record storm tide. The thesis will show that the reported lowest pressure of the cyclone was far lower than the official record shows, making the 1899 cyclone the most powerful cyclone recorded in the southern hemisphere, and one of the most powerful to strike land anywhere in the world. This raises broader questions about the quality of data from historical sources in official disaster databases, and the risks posed to the Queensland coast by cyclones in the Coral Sea.

The methodology and structure of the thesis will be discussed in greater detail, but first I will address the key concepts that inform this work. These concepts and theories of media, memory, and disaster are distinct, but they also overlap.

Media

The role of the media has been crucial to the way the pearling disaster was originally framed and recorded, and the way it has continued to be framed and

²⁷ Hayden White, *The Content of the Form: Narrative Discourse and Historical Representation*, Baltimore: Johns Hopkins University Press, 1987, 172.

repeated during the 20th century. There is no consensus on the definition of “media”, but it is generally applied to the means of mass communication; to newspapers, magazines, books, radio, television, and, today, social media on the internet. In 1899, the media consisted mainly of newspapers and magazines, but I will include the telegraph as not just a tool used by newspapers, but a distinct medium that also affected the message. The media shaped the way in which the pearling disaster was framed and reported, and in which the federation of Australia’s colonies and a White Australia Policy was also being debated. The telegraph plays other roles in the disaster. It was employed by the Queensland Government meteorologist Clement Wragge to receive data on barometric pressure, temperature, wind direction, and strength and to construct weather forecasts, which he then published in newspapers. It was used to warn coastal communities of approaching cyclones, and the telegraph lines were also vulnerable to damage by cyclones, which was the case during the 1899 cyclone, affecting the way the disaster was reported. The telegraph was crucial to newspapers and influenced the way events entered national discourses.

In the 1950s, Canadian political economist Harold Innis proposed a theory that, with the increasing mechanisation of communication, the media had begun to damage culture and what was reported was being distorted by sensationalism, with the media involved in a “ruthless destruction of elements of permanence essential to cultural activity.”²⁸ In the 1960s, Canadian media professor Marshall McLuhan coined the phrase, “the medium is the message.”²⁹ McLuhan’s theory described a “medium”, such as a newspaper, or the radio, or television, as an extension of ourselves, the radio being an extension of hearing, and television of seeing, and so on. What we read, see, and hear — the “message” — is shaped by the medium. McLuhan described the medium’s physical characteristic as embedding itself in any message transmitted, creating a symbiotic relationship in which the medium influences how the message is perceived.³⁰ It follows that the media, including the telegraph and newspapers in the late 19th century, shaped messages and therefore influenced their meaning. The messages were also

²⁸ Harold Innis, *Changing Concepts of Time*, Lanham, Canada: Rowman and Littlefield, 2004, 11.

²⁹ Marshall McLuhan, *Understanding Media: The Extensions of Man*, New York: McGraw-Hill, 1964, 7.

³⁰ *Ibid.*

framed by the social narratives that influenced the writers and editors, who were in turn heavily influenced by political discourse. This had a direct effect on the collective memory which, as Paula Hamilton points out, is influenced through media by power structures.³¹ The media (and a century ago it was mainly newspapers) amplified the voice of opinion-makers and extended the power of businessmen and politicians who, in many cases, framed the cultural discourse and what would therefore become memory.

Social attitudes in 1899, in the soon-to-be federated colonies of Australia, were reflected and amplified through media, especially newspapers and books. Media owners are self-interested agents of memory, and it is in their interests to promote the integrity and accuracy of their products — the information they convey — to maintain sales. The now widely-quoted description of newspapers being “the rough draft of history” has been attributed to the *State* newspaper, of Columbia, South Carolina, in 1905, which stated: “The newspapers are making morning after morning the rough draft of history. Later, the historian will come, take down the old files, and transform the crude but sincere and accurate annals of editors and reporters into history, into literature.”³² It is a powerful statement and it suggests that newspapers have long been aware of their role in shaping memory. Like all institutions of any time and place, however, newspapers were influenced by cultural narratives as well as the limitations of technology, science, and knowledge of their age. Accuracy is relative, and while newspapers may try to be impartial and accurate, and can achieve those ideals to varying degrees, they are heavily influenced by the cultural narratives of the day.³³ It is argued that the media’s impact on memory has been increasing and, as historian Tessa Morris-Suzuki notes, “today, more than ever, we learn about the past from a multiplicity of media.”³⁴ Andrew Hoskins agrees that

³¹ Paula Hamilton, “The Knife Edge: Debates about Memory and History”, in Kate Darian-Smith and Paula Hamilton (eds), *Memory and History in Twentieth-Century Australia*, Melbourne: Oxford University Press, 1994, 20.

³² “The Educational Value of ‘News’”, *State* (Columbia, South Carolina), 5 December 1905, 1. The sentiment can be shown to go back further, for example, in “A Newspaper. The Best Source of Instruction”, *The Academic Review and General Literary Magazine* (London), 1 September 1827, 1, No. 1, 21. The article states: “Tis a Newspaper affords data to a Historian.”

³³ Barbie Zelizer, “Why Memory’s Work on Journalism Does Not Reflect Journalism’s Work on Memory”, *Memory Studies*, 1, No. 1, 2008, 79–87.

³⁴ Tessa Morris-Suzuki, *The Past Within Us: Media, Memory History*, New York: Verso, 2005, 2.

media provides “the very stuff from which new memory is formed”³⁵ and Joy Damousi states that not only do people usually get a sense of their past through the media, but particular forms of histories are shaped through popular narratives in creative media, such as novels and film.³⁶ This thesis will explore the role of the media generally and journalism, including narrative non-fiction, in particular, in shaping the memory of the pearling disaster. I argue that the Outridge booklet is a work of journalism and that its form, narrative non-fiction, is a medium that has a symbiotic relationship with its message and a powerful effect on memory. The booklet was written for an exclusive audience; the European families grieving for their loss. It should be therefore viewed in its social and cultural contexts. The narrative in the Outridge booklet reflects the white pearling fleet owners, its stated intention being to provide an account of the Europeans killed. There was no serious attempt to provide an account of the non-European crew, except as their experience reflected the European experience. Percival Pitman Outridge was part-owner of several fleets and lost a brother and nephew in the disaster. What of the narrative representing most of those killed; the non-European crews? The dictating force of narrative, and the need to tell a story within a framework of a particular industry or community, immediately frames that first draft of history. Outridge was also writing at a time when he would have been conscious that he was creating an historical record. As Courtney Rivard notes in her thesis *Archiving Disaster*, the 19th century was a time when history focused on big events and powerful men, “thereby either erasing the many rich histories of communities and cultures that were not related to elite, white power-holders or rather, in the case of colonial histories, using communities in colonized regions as objects of inquiry in the great Western history of progression.”³⁷ Outridge would have been conscious of his role in history when he published his booklet. This thesis, therefore, questions those cultural accounts by contextualising the history of the pearling disaster. Representations of disaster, like other historical events, have been a process of remembering, forgetting, and re-interpreting, but they also draw on sources that frame memory according to the

³⁵ Andrew Hoskins, “New Memory: Mediating History”, *Historical Journal of Film, Radio and Television*, 21, No. 4, 2001, 342.

³⁶ Joy Damousi, “History Matters: The Politics of Grief and Injury in Australian History”, *Australian Historical Studies*, 33, No. 118, 2002, 101.

³⁷ Courtney J. Rivard, *Archiving Disaster: A Comparative Study of September 11, 2001 and Hurricane Katrina*, PhD thesis, University of California, 2012, 51.

cultural discourse of the time. Different aspects of the disaster have been emphasised at different times in the past 120 years within changing cultural frameworks and attitudes, and what is remembered is, inevitably, a product of these influences.

Before moving on to the theoretical framework of memory, I want to reiterate the importance of the relationship between media, particularly journalists, and public memory. Journalism and memory theorist, and professor of communication at the University of Pennsylvania, Barbie Zelizer, believes journalists are “a key agent of memory work, even if journalists themselves are averse to admitting it as part of what they do and even if memory scholars have not yet given journalism its due.”³⁸ I argue that journalists have always been aware of writing the “rough draft of history” and therefore have always knowingly been the agents of memory.

Memory

As stated, memory and media are today inextricably linked. British psychologist Nigel C. Hunt goes further, and says cultural narratives are shared mainly through mass media, and increasingly through the internet, rather than just books, newspapers, and oral sources. Hunt states that, “memory and identities are also shaped by the media. We cannot understand memory without drawing on the social and cultural influences of memory.”³⁹

The first theories of “collective memory” were formulated by Emile Durkheim and his student Maurice Halbwachs. Halbwachs published *The Social Framework of Memory* in 1925 arguing that what individuals remembered was determined by the group to which they identified or belonged.⁴⁰ Rather than memory being a record of the past, it was reconstructed “with data borrowed from the present,” and memory was then sustained by memorials, rituals, and repetition as stories.⁴¹ It did not have to be true to be remembered. White, in expanding on the

³⁸ Zelizer 2008, 85.

³⁹ Nigel C. Hunt, *Memory, War, and Trauma*, Cambridge, UK: Cambridge University Press, 2010, 120.

⁴⁰ Maurice Halbwachs, *On Collective Memory*, Chicago: University of Chicago Press, 1992, 43.

⁴¹ Maurice Halbwachs, *The Collective Memory*, New York: Harper and Row, 1980, 69.

theory, argues that history is also a narrative, more an art than a science. It is a representation of events and its narrative structure actively prevents it from being an accurate record of fact.⁴² Collective memory also includes a cultural framework in which individual memories are shared in a representation of the past that resonates with the present. That framework involves exclusion and forgetting, as Paula Hamilton explains: “Defining groups or nations always necessitates a dual process of inclusion and exclusion and remembering the past is a central mechanism of that process. Many have noted that forgetting is one of the most powerful forces that shape national remembering.”⁴³ The cultural framework of Australia since 1899 affected the way the pearling disaster was recorded, reported, and commemorated. Initially, and for much of the 20th century, the foreign workers and Aboriginal people who died in the pearling disaster were largely excluded from the collective memory, as they were from the memorials. German historian Jan Assmann explains that “individual memory constitutes itself in communication with others. These ‘others,’ however, are not just any set of people, rather they are groups who conceive their unity and peculiarity through a common image of their past.”⁴⁴ As Assmann states, every individual belongs to many groups which share numerous presentations of memories, from families to professional groups, and communities to nations. It is significant that the pearling disaster occurred just before Australian Federation, when a new nation was already anticipated and imagined. Political scientist Benedict Anderson describes an “imagined community” whose members already conceive of themselves as being part of a nation.⁴⁵ In 1899, before the nation was formed, the “coloured aliens”, who constituted most of the victims of the pearling disaster, had already been excluded from the imagined Australian nation. The pearling fleet was made up of not one, but several, sub-communities and while some remember the disaster on individual, family, and local levels, to various degrees, the disaster does not resonate on a national level.

⁴² White 1987.

⁴³ Hamilton 1994, 23.

⁴⁴ Jan Assmann and John Czaplicka, “Collective Memory and Cultural Identity”, *New German Critique*, 65, 1995, 127.

⁴⁵ Benedict R. Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, London: Verso, 2006, 6.

Halbwachs distinguishes collective memory from history, describing collective memory as a continuous process that “retains from the past only what still lives or is capable of living in the consciousness of the groups keeping the memory alive.”⁴⁶ It is not static, but can change, and is framed by social narratives that also change. In cases of disaster and war, it is also framed by trauma, and this thesis will examine memory and trauma in families. Damousi describes the way in which trauma affects memory, especially in war widows whose memories are “imbued with particular images of nostalgia, lost opportunities, hopes left unrealised and a disavowal of grief.”⁴⁷ By speaking to descendants of those who experienced the 1899 cyclone, particularly the descendants of those who died, the role of intergenerational trauma will be examined as it relates to memory.

The role of the media today grows more complex as it evolves, and the internet’s influence on the message, and therefore memory, is being shaped, as McLuhan suggests, by the medium itself. That is a rapidly evolving paradigm beyond the remit of this thesis. Suffice to say that, more than a century since the pearling disaster, the collective memory of the event, as portrayed in books, newspapers, memorials, and today in mass media and online articles, differs in significant ways not just from what happened, but from how the event was recorded immediately after, and then as media and society changed during the 20th century. As much has been forgotten about the event as remembered, but what has been forgotten is telling. As sociologist Elizabeth Jelin points out, “Insofar as the frameworks of memory are historical and subject to change, all memories are more reconstructions than recollections,” and the memories that do not fit within the framework are often forgotten.⁴⁸ Collective memory, like individual memory, is selective and subjective, something psychologists conclude is a response to change. This, as historian David Thelen notes, can be enlightened by historians, and he explains that “questions about the construction of memory can illuminate how individuals, ethnic groups, political parties, and cultures shape and reshape their identities — as known to

⁴⁶ Halbwachs 1980, 80.

⁴⁷ Joy Damousi, *Living with the Aftermath: Trauma, Nostalgia and Grief in Post-war Australia*, Melbourne: Cambridge University Press, 2001, 193.

⁴⁸ Elizabeth Jelin, *State Repression and the Labors of Memory*, Minneapolis: University of Minnesota Press, 2003, 11.

themselves and to others.”⁴⁹ This is significant when considering why data and narratives associated with the disaster have changed over a century. The changes reveal insights into changes in Australian politics, for example, and in social and cultural discourses. In the case of the disaster, the narratives from the perspective of the “other” — the non-European crews and the Aboriginal people ashore — did not form part of the original European narrative. As Henry Reynolds noted, “Historical neglect of the Aborigines persisted until the 1960s,”⁵⁰ and it was not until after a 1967 referendum that the Constitution was amended to count Aboriginal people in the census. Writing four years later, in 1971, Holthouse reintroduced narratives from Aboriginal and Torres Strait Islander perspectives of the 1899 disaster, revising the Aboriginal death toll up to “about 100” and introducing a myth as part of the cultural narrative based on Darnley Island woman Moira Newi (also known as Moara or Muara Lifu) and her rescue of “two white men” during the cyclone.⁵¹

Memory of the disaster, though, does exist in other communities and this thesis brings them into a body of research that reconstructs the disaster. For instance, there is a document remembering the disaster in the Japanese town of Shionomisaki, part of Wakayama Province from which many of the Japanese workers in the pearling industry were recruited in the late 19th century.⁵² Memories of the cyclone also exist in Aboriginal family groups in far North Queensland.⁵³ Indeed, Aboriginal groups around the country have memorialised cyclones as legends and art and they offer perspectives that, in some cases, challenge the official record.⁵⁴ Attempts have been made previously to reconstruct the pearling disaster narrative to include the largely ignored Aboriginal and other non-European communities. Holthouse’s non-fiction narrative, *Cyclone*, in 1971 is one example.⁵⁵ Another is my own fictional novel, *The Devil’s Eye*.⁵⁶ The role of literature, including creative non-fiction, will also be examined. Creative non-fiction uses the styles and the

⁴⁹ David Thelen. “Memory and American History”, *Journal of American History*, 75, No. 4, 1989, 1118.

⁵⁰ Henry Reynolds, “Introduction”, in *Dispossession: Black Australians and White Invaders*, Sydney: Allen and Unwin, 1989, xiii.

⁵¹ Holthouse 1971, 9. This myth will be examined in detail in Chapter Five.

⁵² John Lamb, *Cape of Tides*, Canberra: John Lamb, n. d., 11.

⁵³ Daniel Gordon in an interview with Ian Townsend, 2 March 2015.

⁵⁴ *Ibid.* Daniel Gordon says there is no community memory amongst the Traditional Owners of Cape Melville of 100 Aboriginal people being killed in the storm.

⁵⁵ Holthouse 1971.

⁵⁶ Townsend 2008.

techniques of novel writing, while attempting to remain factually correct. Gay Talese describes creative non-fiction as “often reading like fiction, [although] it is not fiction. It is, or should be, as reliable as the most reliable reportage, although it seeks a larger truth than is possible through the mere compilation of verifiable facts.”⁵⁷ Lee Gutkind describes it as more of a movement than a genre,⁵⁸ and Norman Sims prefers the term “literary journalism” in that it involves novel-writing tools such as “elaborate structures, characterization, and even symbolism, but with the added requirement of accuracy.”⁵⁹ The Australian writer Paul Ham defended what he called “popular histories”; the use of narrative non-fiction to tell history.

Great popular histories — as distinct from populist ones that, like politicians, wilfully distort the truth to boost sales and are soon forgotten — share distinctive qualities. They are written in a rich narrative style, with a strong authorial voice and an intimate sense of character and place. They accept accident, cock-up and personality as drivers of human affairs. They synthesise a vast amount of research into a coherent narrative.⁶⁰

Popular histories are often successful because they tap into contemporary cultural discourses, including narratives that already resonate within a group, reintroducing stories and influencing and reinforcing memory. Ham does it well, but he sets up a conflict between writers of popular or cultural histories and academics writing scholarly histories, as if it were a zero-sum game. The two are distinct. As will be shown, scientific and official data today for the 1899 cyclone has been drawn from journalism and narrative non-fiction. In many cases, it differs significantly from what an historical methodology shows to be the best evidence. I agree with Arthur Marwick, in distinguishing between the two, that scholarly historians should “be profoundly conscious that they should not be trying to emulate novelists or poets. Duties, of course, pertain to the historian, not history.”⁶¹

⁵⁷ Gay Talese, *Fame and Obscurity*, New York and Cleveland: World, 1970, vii.

⁵⁸ Lee Gutkind, “Creative Nonfiction”, *Writer*, 117, No. 5, May 2004, 14–15.

⁵⁹ Norman Sims, “International Literary Journalism in Three Dimensions”, *World Literature Today*, 86, No. 2, 2012, 34.

⁶⁰ Paul Ham, “Human Factors”, *Sydney Morning Herald (SMH)*, 22 March 2014, <http://www.smh.com.au/entertainment/books/human-factors-20140320-353nd.html> (accessed 2 October 2018).

⁶¹ Arthur Marwick, *The New Nature of History: Knowledge, Evidence, Language*, Basingstoke, UK: Palgrave, 2001, 81.

I have written two historical novels, *Affection* and *The Devil's Eye*, which attempted to place historical events back into a cultural narrative.⁶² I did not write them as an historian, but as a journalist, and as Marwick says, a distinction should be made between cultural and historical narrative. *Affection* was based on the 1900 outbreak of plague in Queensland and *The Devil's Eye* on the 1899 cyclone. Both books re-examined events that had largely vanished from the collective memory, and were re-interpreted through a fictional narrative. A third book, *Line of Fire*,⁶³ was narrative non-fiction; an attempt to investigate the invasion by the Japanese of Rabaul, in the Australian mandated Territory of New Guinea, in 1942, and it took what Alun Munslow would describe as a deconstructionist approach.⁶⁴ All three books are cultural narratives and distinct from an historian's approach to history. Historians have a duty to history, not to literature, but literature, as well as film and television, often shapes history and needs, therefore, close attention.⁶⁵ As mentioned, some narrative non-fiction books have changed the historical record. Holthouse's 1971 anthology, *Cyclone*, described the pearling disaster and, imaginatively, the Darnley Island woman, Muara, rescuing two European men. His writing was imaginative and unreferenced when he wrote, for example: "Holding grimly to her semi-conscious burden, Muara swam on through the hurricane-lashed waters. Once a wrecked lugger, driven before the wind, almost swept over the top of her."⁶⁶ There is no evidence for this, and Holthouse's work has to be considered in its contemporary context. As Marwick says, "A cultural artefact, like any other primary source, is a source for the period in which it was produced, not for the period to which it refers."⁶⁷ I would argue that it applies to narrative non-fiction, in that Holthouse's book is a primary source for 1971, not 1899. The problem is, however, that it has been treated by some as a source for data for the 1899 cyclone.

⁶² Ian Townsend, *Affection*, Pymble, NSW: Fourth Estate (HarperCollins), 2005; Townsend 2008.

⁶³ Ian Townsend, *Line of Fire*, Pymble, NSW: Fourth Estate (HarperCollins), 2017.

⁶⁴ Alun Munslow, *Deconstructing History*, New York: Routledge, 2006, 71

⁶⁵ Damousi 2002, 101.

⁶⁶ Holthouse 1971, 187.

⁶⁷ Marwick 2001, 81.

Disaster

There are probably as many definitions of disaster as there are of media and memory. The Council of Australian Government's (COAG) *National Strategy for Disaster Resilience* defines disaster as:

A serious disruption to community life which threatens or causes death or injury in that community and/or damage to property which is beyond the day-to-day capacity of the prescribed statutory authorities and which requires special mobilisation and organisation of resources other than those normally available to those authorities.⁶⁸

Another useful definition is from the Brussels-based Center for Research on the Epidemiology of Disasters, used by the Red Cross, which defines disaster as “a situation or event which overwhelms local capacity.”⁶⁹ The criteria used for entering a disaster into their database includes 10 or more people dead, and/or 100 or more affected, and/or a state of emergency declared, and/or international assistance requested. These definitions are useful in helping governments respond. There is no universally-accepted definition, but the pearling disaster fits all definitions of disaster. A more useful way of looking at the disaster, and of natural disasters in general, is to consider theories of risk, where:

$$\text{Risk} = \text{Hazard} \times \text{Vulnerability}^{70}$$

Considering vulnerability when it comes to disaster is important to many aspects of this thesis because vulnerability involves memory and empathy. How likely people are to identify themselves or their families, or group, with victims of a disaster determines whether they believe that a disaster could affect them, and therefore if they will act to avoid it. David Etkins also cites research suggesting that people respond more strongly when individual victims can be identified, but become less

⁶⁸ COAG, *National Strategy for Disaster Resilience: Building the Resilience of Our Nation to Disasters*, COAG, Barton, ACT, 2011, 22, <https://knowledge.aidr.org.au/media/2153/nationalstrategyfordisasterresilience.pdf> (accessed 17 March 2019).

⁶⁹ Center for Research on the Epidemiology of Disasters, Université Catholique de Louvain, *The International Disaster Database*, Brussels, Belgium, <http://www.emdat.be> (accessed 17 March 2019).

⁷⁰ See David Etkins, *Disaster Theory: An Interdisciplinary Approach to Concepts and Causes*, Boston: Butterworth–Heinemann, 2015.

concerned when events are large and impersonalised. He calls this “psychosocial numbing”, and it is why disaster relief organisations identify individual victims, particularly children, when raising money.⁷¹ This psychosocial aspect explains contemporary responses to the pearling disaster, including why a Queensland-wide relief fund in 1899 for the “sufferers of the North Queensland pearling fleet disaster” raised only £23/2-, most of which came from the Queensland Governor, Brisbane’s Mayor, and a shipping agent. Only three members of the public subscribed, donating £2/12- between them.⁷² By comparison, a relief fund in East Maitland in NSW set up for the families of three men killed at a colliery disaster at nearby East Greta three months earlier raised £150 pounds.⁷³

Globally, tropical cyclones are among the most destructive of natural disasters. Of the top 10 most costly natural disasters in the US between 1900 and 2007, measured by insured losses, nine were hurricanes (the other was the San Francisco earthquake of 1906).⁷⁴ In Australia between 1967 and 1999, cyclones cost an average \$266 million each year.⁷⁵ The Insurance Council of Australia’s preliminary estimate of damage caused by cyclone *Debbie*, which struck Queensland in March 2017, was \$660 million.⁷⁶ As world populations increase and settle mainly in coastal areas, the global annual cost of cyclones — currently \$US26 billion — is expected to double within a century,⁷⁷ and some researchers predict that with climate change it may quadruple to \$US109 billion by 2100.⁷⁸

⁷¹ Ibid., 75

⁷² “Pearling Disaster. Mayor of Brisbane’s Fund”, *Telegraph* (Brisbane), 8 April 1899, 9.

⁷³ “New South Wales”, *Telegraph* (Brisbane), 7 February 1899, 5.

⁷⁴ Etkins 2015, 45.

⁷⁵ Alan Sharp, Craig Arthur, Bob Cechet, and Mark Edwards, “Tropical Cyclones”, in Miriam. H. Middelmann (ed.), *Natural Hazards in Australia: Identifying Risk Analysis Requirements*, Canberra: Geoscience Australia, 2007, 43, <http://www.ga.gov.au/metadata-gateway/metadata/record/65444/> (accessed 18 March 2019).

⁷⁶ “Insurance Forums Planned as Cyclone Debbie Losses Cross \$660m”, *Insurance and Risk Magazine*, National Insurance Brokers Association, 11 April 2017, <http://www.insuranceandrisk.com.au/insurance-foruma-planned-as-cyclone-debbie-losses-cross-660m/> (accessed 17 March 2019).

⁷⁷ Jennifer Chu, “The Cost of Tropical Cyclones,” *MIT News*, 17 January 2012, <http://news.mit.edu/2012/tropical-cyclones-0117> (accessed 17 March 2019).

⁷⁸ Robert Mendelsohn, Kerry Emanuel, Shun Chonabayashi, and Laura Bakkensen, “The Impact of Climate Change on Global Tropical Cyclone Damage”, *Nature Climate Change*, 2, March 2012, 205–209, <http://www.nature.com.ezproxy.library.uq.edu.au/nclimate/journal/v2/n3/pdf/nclimate1357.pdf> (accessed 17 March 2019).

The 2013 Intergovernmental Panel on Climate Change (IPCC) has projected fewer cyclones overall, but an increase of 15 percent in the number of severe cyclones in the near term in the South West Pacific, including the Coral Sea.⁷⁹ In other words, a greater proportion of the cyclones in the South West Pacific are expected to be severe. Cyclones draw their energy from the warmth of the water beneath them, and the warmer the sea, the more available energy. It is significant that the cyclone that caused the 1899 pearling fleet disaster was the only severe cyclone recorded on the far North Queensland coast in the summer of 1898–99.⁸⁰ That summer fell within a prolonged period of El Niño weather patterns that were responsible for what is now called the Federation Drought. El Niño conditions generally produce less rain on Australia’s east coast and fewer, but more, severe cyclones. The conditions leading up to March 1899 could be said to match those anticipated as a result of climate change, in which more frequent El Niño conditions are predicted. The IPCC notes, however, that there is a lack of historical data on tropical cyclones in the South West Pacific and, as a result, confidence in those predictions is less certain than it is for other regions where there is better historical data.⁸¹

The historical records of cyclones are a vital tool for cyclone prediction and disaster planning, because human memory is usually shorter than the recurrence, in any specified community, of severe cyclones. The destructive impacts of cyclones are localised, and it can be a long time between impacts for any specific community. For example, although the city of Mackay in Queensland has experienced the effects of cyclones, it has not experienced the level of disaster caused by a severe cyclone since 1918, when the damaging core passed near the city. The destructive winds at the core are hard to imagine unless they have been experienced, and that experience can happen more than 100 years apart for any specific community. For a nation where most of the population does not live in a cyclone zone, the destructive

⁷⁹ B. Kirtman et al., “Near-term Climate Change: Projections and Predictability”, in T. F. Stocker et al. (eds), *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the IPCC*, Cambridge and New York: Cambridge University Press, 2013, 992. The report noted that there was not enough data to show whether there would be more or fewer cyclones in the South West Pacific, but that a greater proportion of them would likely be severe. The report cited L. M. Leslie et al., “Variability of Tropical Cyclones over the Southwest Pacific Ocean Using a High-resolution Climate Model”, *Meteorology and Atmospheric Physics*, 97, No. 1, 2007, 171.

⁸⁰ Jeffrey Callaghan and Peter Helman, *Severe Storms on The East Coast of Australia 1770–2008*, Southport, Gold Coast: Griffith University, Griffith Centre for Coastal Management, 2008.

⁸¹ Kirtman et al. 2013, 992.

force of a severe cyclone's core is even more difficult to comprehend. A rapidly growing naïve population in far North Queensland further increases North Queensland's vulnerability to disaster. A study of the Pacific Islands by environmental scientist Fes de Scally found that memory was an important factor in vulnerability, or risk,⁸² as did Monica Zappa's study in South America that concluded, "If the return interval of the natural hazard is longer, the population is potentially more vulnerable to the natural hazard."⁸³

Theories of social memory are, therefore, significant in disaster theory, as are theories of media as they relate to culture. In some ways, disasters can be considered cultural objects because they do play a role in Australian cultural identity.⁸⁴ Considering them as cultural objects helps explain why some disasters, such as cyclone *Tracy*, resonate and others, such as cyclone *Mahina*, do not. As Michael Schudson explained, "The relevance of a cultural object to its audience, its utility, if you will, is a property not only of the object's content or nature and the audience's interest in it but of the position of the object in the cultural tradition of the society the audience is a part of."⁸⁵ For a disaster to be a relevant cultural object, it helps if a narrative has already been established within which an audience can place that object. The social, political, and cultural narratives at the time of the pearling disaster were framed by the White Australia debates, which included a fear of "aliens." The alien was also, in a sense, a cultural object and objectified in the media, and here theories of semiotics as they apply to cultural narratives are considered.⁸⁶ The widespread use of the word "alien" helps explain contemporary cultural discourses. "Settling the Alien Difficulty", the title of a woodcut image in an 1899 newspaper showing Death with a net standing amongst drowning men (Figure A1), was meant to portray irony and sympathy. It also tapped in to the dominant political discourse and this was reflected by what today seems a gross oversight; the absence from the disaster memorials of the names of about 300 non-European

⁸² Fes A. de Scally, "Historical Tropical Cyclone Activity and Impacts in the Cook Islands", *Pacific Science*, 62, No. 4, 2007, 443–460.

⁸³ Monica Zappa, *Assessing Human Vulnerability to Hurricanes: A Case Study of Bluefields, Nicaragua*, PhD thesis, Department of Geography, Northern Illinois University, 2009, 70.

⁸⁴ West and Smith 1997.

⁸⁵ Michael Schudson, "How Culture Works", *Theory and Society*, 18, No. 2, 1989, 169.

⁸⁶ Roland Barthes, *Elements of Semiology*, Annette Lavers and Colin Smith (trans.), New York: Hill and Wang, 1968, 11.

crew. They were described at the time as “alien”, which framed the disaster as a mostly foreign event and played a key role in forgetting.



Figure A1 A woodcut entitled “Settling the Alien Difficulty” published in Townsville’s *North Queensland Register (NQR)*, 20 March 1899, 25.

Finally, it is useful to also examine the words “cyclone” and “hurricane” in the context of the disaster. In the late 19th century, the term “hurricane” generally described the strength of the wind, but both “cyclone” and “hurricane” were used to describe the tropical storms known also as “typhoons” in the Northern Pacific and “hurricanes” in the Atlantic. In Australia, the term hurricane could be used for any destructive wind, whether it was a cyclone or a severe storm. The word itself comes from the Spanish translation of the word “Huracan”, from the Aztec language, and it is significant that Walter Roth, the Cooktown-based Northern Protector of Aboriginals who travelled to the disaster scene in 1899, later investigated the origins of the word “hurricane.” He noted that the Aztec “Huracan” resembled words used by the Indigenous people of central America, and he wrote:

Huracan means the Spirit (corazon) of the Sea, the Spirit of Heaven and Earth: the Nahuas were unable to conceive of the author of the

universe except in a cataclysm. Cyclone, Hurricane, or Cordonazo de San Francisco are names of the same phenomenon. Hurakan of the Quiche myths is the Kukulcan of the Maya, the Quetzalcoatl (morning-star) of Mexican mythology.⁸⁷

The thesis will show that the descriptors and symbolism in social discourse at the time had powerful effects on the way the disaster was framed, as something exotic, and this also played a role in preventing it from being accepted as a national tragedy.

Methodology

The thesis begins as an attempt to see where evidence and the historical record diverge over time, and then to reconstruct the event based on the best evidence. This may seem to descend into what Munslow calls “hard core” empiricism,⁸⁸ but in the sections of this thesis that deal with empirical data, a sense that the past can provide sound evidence is necessary. Scientists rely on the historical record to prepare for the meteorological impacts of a changing climate. Facts which might be considered too remote to be trustworthy to historians (as Munslow suggests)⁸⁹ will often be used, regardless, as data by scientists. It could be said that there are two parts to the disaster: The phenomena originally observed and recorded, and the narratives in which they have later been placed. Although one impinges on the other, they can enlighten each other, and they can also be considered separately. We are still able to judge the likelihood that something happened, and some evidence can be accepted as credible.⁹⁰ History may not be science, but primary sources exist and although there may be biases and imperfections in them, caused by the way they are framed, there are objective, recoverable data concerning the pearling disaster, as Marwick’s approach suggests.⁹¹

⁸⁷ Walter Roth, “An Inquiry into the Animism and Folklore of the Guiana Indians”, *30th Annual Report*, Bureau of American Ethnology, Government Printing Office, Washington, 1915, 170–171.

⁸⁸ Munslow 2006, 2.

⁸⁹ *Ibid.*

⁹⁰ See Keith Jenkins, *Re-Thinking History*, London: Routledge, 1991, 5–6.

⁹¹ Marwick 2001.

The research for this thesis examines surviving material of the cyclone's impact on Queensland, the northern pearling fleets, and the survivors at sea and ashore. It examines available contemporary and subsequent reports, and the oral and written histories and stories that have survived. It involves primary research at numerous archives, as well as interviews with families and an examination of family documents. It examines eye-witness accounts, including ship logs, meteorological data, and the documents of survivors, and compares these with subsequent interpretations of the event. It produces a database of the victims, a bibliography of surviving material, and a critical assessment of the impact. Some of the data uncovered during research for this thesis has already been used to remodel the cyclone,⁹² and is now the main reference for the world record storm surge height used by the World Meteorological Organization (WMO).⁹³

What I offer is a new look at the event and the reasons why the memory of it has changed, and why it did not become a national memory. This has implications for science, and for rethinking our relationship with past disasters and preparing for future ones.

Chapters

This thesis examines Australia's deadliest cyclone and seeks to evaluate the evidence. It will show how changing cultural narratives changed the evidence, affected the historical record, and prevented the event from entering the collective (national) memory. Chapter One begins with the development of a methodology with which to test the evidence for the cyclone. On what historical documents is the data in scientific literature, popular histories, and government databases based? Are more credible documents and data available? If it is shown that there are errors in the data, what caused them? A methodology is developed by which to test the data, to find the best evidence for the cyclone and the disaster it caused. Chapter Two examines the elements that provide context

⁹² See Nott et al. 2014.

⁹³ WMO, "Tropical Cyclone: Largest Storm Surge associated with Tropical Cyclone".

to the disaster, including the pearling industry, the people ashore and the cyclone's genesis. Using the methodology to extract the best evidence from historical documents, the disaster will be reconstructed. Chapter Three will apply the methodology to evidence for deaths at sea and ashore, and produce a death toll based on the best evidence. There appear to be myths associated with the disaster, particularly the death toll. These are deconstructed, and better evidence applied to reconstruct a narrative of the Torres Strait Islander experience of the cyclone. The memories and narratives of the Aboriginal people ashore are examined. Chapter Four considers the effect of political, social, and media narratives on memory. The White Australia Policy, the debates over Federation, and popular European cultural narratives are considered, as is their influence on how the disaster was recorded, especially in the media. Meteorologist Clement Wragge's revision of the event, and the later impact of trauma, are examined as key influences of memory. Chapter Five reconstructs the cyclone using quantitative data extracted with the methodology from historical documents. How can historical inquiry be applied to science? In what ways can it help scientists and emergency managers prepare for future disasters caused by cyclones? What can the new data show about the cyclone's lowest pressure and the world record storm tide associated with it? Simple models are used to reveal new information about the cyclone's track and the site and impact of the storm tide, the cyclone's most dangerous feature.

This thesis begins with a historiography of the 1899 pearling disaster and the development of a methodology to test the evidence.

CHAPTER 1

A veritable mine of [mis]information: The Outridge booklet

Errors like straws, upon the surface flow,
He who would search for pearls must dive below.

John Dryden, *All for Love*, 1678¹

“Probably no Australian cyclone has been so well documented,” said meteorologist Herbert E. Whittingham in his 1958 analysis of the cyclone that caused the 1899 pearling disaster.² The disaster of 4 and 5 March 1899 at Cape Melville, Queensland, is, apart from heatwaves and epidemics, regarded as Australia’s deadliest natural disaster, killing about 300 people and holding the world record for a storm tide.³ Whittingham noted that before 1958, and despite its scientific significance, meteorologists had discussed the cyclone briefly and only twice since 1899: in 1914 and 1925.⁴ It was only when Whittingham was shown a copy of *The Pearling Disaster, 1899: A Memorial*,⁵ (which he called the Outridge booklet, “for want of a better name”)⁶ that he reconstructed the event for a scientific paper.⁷ Whittingham described the Outridge booklet as “a veritable mine of information”⁸ and used it as his main source for data from which to understand the meteorological nature of the cyclone and to reconstruct its path.⁹ Whittingham’s 1958 paper and the 1899 Outridge booklet on which it is based have become the main sources for

¹ John Dryden and William Shakespeare, *All For Love, or, The World Well Lost: A Tragedy. Written in Imitation of Shakespeare’s Stile*, 1677, available from Early English books online <https://eebo.chadwyck.com> (accessed 3 April 2018). This is a reproduction of the original in Worcester College Library, Oxford.

² H. E. Whittingham, “The Bathurst Bay Hurricane and Associated Storm Surge”, *Australian Meteorological Magazine*, 23, 1958, 22.

³ WMO, “Tropical Cyclone: Largest Storm Surge associated with Tropical Cyclone”, *WMO World Weather and Climate Extremes Archive*, <https://wmo.asu.edu/content/tropical-cyclone-largest-storm-surge-associated-tropical-cyclone> (accessed 26 May 2016).

⁴ Whittingham 1958, 36. Whittingham cites H. A. Hunt, *Results of Rainfall Observations Made in Queensland*, Melbourne: Albert J. Mullett, Government Printer, 1914, and S. S. Visher and D. Hodge, *Australian Hurricanes and Related Storms, with an Appendix on Hurricanes in the South Pacific*, Commonwealth Bureau of Meteorology Bulletin No. 16, 1925.

⁵ Anonymous, *The Pearling Disaster, 1899: A Memorial*, Brisbane: Outridge Printing Company, 1899.

⁶ Whittingham 1958, 15.

⁷ *Ibid.* Whittingham thanked John Zillman, then a cadet meteorologist in Brisbane, who “discovered the Outridge booklet and brought it to the attention of the writer.” Zillman was later to become director of BOM.

⁸ *Ibid.*, 15.

⁹ *Ibid.*, 36. Whittingham also used 1899 regional weather observations, and the barometric charts of the Queensland Weather Bureau drawn by Government Meteorologist Clement Wragge.

information on the event in scientific and popular literature.¹⁰ Data from Whittingham's paper has been used in studies that assess the impact of future cyclones and the possible impacts of climate change.¹¹ Whittingham assumed that the information in the Outridge booklet was reliable, but there has never been an epistemological review of the disaster.

This chapter shows by example the methodology used to review the reliability of sources, particularly newspaper articles, for the pearling disaster. In considering whether the historical record reflects the best evidence, it deconstructs the Outridge booklet and Whittingham's paper to provide a foundation on which to reconstruct, later in this thesis, the disaster and the cyclone that caused it. This reconstructionist approach will in turn provide the foundation of evidence upon which other aspects of the event, such as cultural memories and narratives, will be examined in the following chapters. To review the large number of sources, the methodology has been developed with newspapers in mind because the data they contain is the basis for much of the evidence on which the popular and scientific narratives are based. This methodology is designed to identify the best evidence, and while it differs from what has been generally accepted by scientists, it does not alter the conclusions that the 1899 cyclone was Australia's deadliest and produced a world record storm surge. This thesis should also not be seen as a repudiation of Outridge and Whittingham's works. Without those works, significant aspects of the cyclone would remain unrecorded. That these two sources have remained uncriticised and untested is not the fault of their authors, who defined their objectives and the limitations of their research.

¹⁰ See for example, Jonathan Nott and Matthew Hayne, "How High Was the Storm Surge from Tropical Cyclone Mahina? North Queensland, 1899", *Australian Journal of Emergency Management*, 15, No. 1, Autumn 2000, 11–13; Australian Institute for Disaster Resilience, "Cyclone Mahina 1899", *Disaster Resilience Knowledge Hub*, <https://knowledge.aidr.org.au/resources/cyclone-cyclone-mahina-cape-york-queensland> (accessed 7 February 2019); Guinness World Records Limited, "Highest Storm Surge", *Guinness World Records 2014*, New York: Bantam, 2014, 107.

¹¹ See for example, Alan Sharp, "Assessing Risk from Meteorological Phenomena Using Limited and Biased Databases", *The Australian Journal of Emergency Management*, 23, No. 4, November 2008, 9–13; Sarah Zielinski, "Australian Cyclone Activity Hits Record Low Levels", *Smithsonian.com*, 29 January 2014, <https://www.smithsonianmag.com/science-nature/australian-cyclone-activity-hits-record-low-levels-180949527/> (accessed 25 May 2018). Zielinski writes: "Scientists and the public have been interested in how hurricane and tropical cyclone activity might change in the future because these can be incredibly devastating storms. ... Cyclone *Mahina*, which struck Queensland in 1899, for instance, holds the world storm surge record at 48 feet."

As explained in the Introduction and as shown in the Bibliography, I have reviewed many documents from as wide a range of sources as possible, to reveal evidence in which more confidence can be placed. Because of the world record storm surge, high death toll, and extraordinarily low central pressure associated with the cyclone, scientists and disaster researchers have written more about the 1899 pearling disaster than have historians.¹² As will be discussed in Chapter Four, disasters “are not usually regarded as the substance of scholarly work by historians,”¹³ even though they represent “one of life’s most significant events, both individually and for the community.”¹⁴ Scientists have in the past few decades displayed a greater interest in historical disasters as the “science of disaster prediction flourishes”¹⁵ and the cost and number of natural disasters globally rises.¹⁶ Articles published in scientific journals have used, often uncritically, information drawn either from the Outridge booklet, or from Whittingham, or both. Outridge drew information largely from newspaper reports, suggesting that much of what science knows about the event is based on untested secondary and sometimes anecdotal sources. This raises questions about the validity of conclusions drawn by scientific studies using that information, as well as how scientists use historical sources more generally.

Many archives, particularly newspaper archives, have become more easily accessible as computer technology has improved and more documents are digitised,¹⁷ giving researchers in all disciplines greater access to more historical

¹² A literature search using Google Scholar with the words “*Mahina*”, “1899”, and “cyclone”, for example, reveals 149 scholarly articles, most of which are related to science or disaster management https://scholar.google.com.au/scholar?hl=en&as_sdt=0%2C5&q=mahina+1899+cyclone+&oq= (accessed 18 March 2019).

¹³ Paula Hamilton, “Memory Remains: Ferry Disaster, Sydney 1938”, *History Workshop Journal* 1999, No. 47, 1999, 197.

¹⁴ Thomas R. Forrest, “Disaster Anniversary: A Social Reconstruction of Time”, *Sociological Inquiry*, 63, No. 4, 1993, 447.

¹⁵ Nathaniel Rich, “The New Science of Disaster Prediction”, *New Yorker*, 19 November 2013, <https://www.newyorker.com/news/news-desk/the-new-science-of-disaster-prediction> (accessed 18 March 2019); Jessica Bosari, “Catastrophic Risk Modeling and Recent Disasters: How the Insurance Industry Rides Out the Storms”, *Forbes Magazine*, 24 August 2012, <https://www.forbes.com/sites/moneywisewomen/2012/08/24/catastrophic-risk-modeling-and-recent-disasters-how-the-insurance-industry-rides-out-the-storms/#27e5e9de56ba> (accessed 18 March 2019). Bosari writes: “There is much insurance companies can do to be prepared for each level of disaster through catastrophic risk modeling, and — based on historical records — some level of predictive accuracy they can achieve in guessing the likelihood of disaster occurrence.”

¹⁶ Oliver Sues, “Who Pays Cost of Mother Nature's Destructive Fury?”, *Bloomberg*, 8 September 2017, <https://www.bloomberg.com/news/articles/2017-09-08/who-pays-cost-of-mother-nature-s-destructive-fury-quicktake-q-a> (accessed 18 March 2019).

¹⁷ See Roberta Kwok, “Historical Data: Hidden in the Past”, *Nature*, 549, 21 September 2017,

information. The sources for that information, particularly newspapers, remain prone to the errors of their era. For example, newspapers contain errors arising from the use of the telegraph, the day-to-day production errors in the linotype era, limited access to information (relative to today), and the powerful influence of contemporary cultural narratives. A review of the earliest and primary sources for evidence in the 1899 pearling disaster reveals how production errors and cultural narratives in newspapers, when repeated, attached themselves to the historical record. It also reveals the point at which memory and history begin to diverge in what Pierre Nora describes as memory's "permanent evolution" as history moves further away from "what is no longer."¹⁸ The apparent failure, especially by scientists, to distinguish between memory and history and to consider the risk of errors in newspapers raises broader questions about the scientific interpretation of disasters and what scientists are prepared to accept as valid historical data. This has implications for disaster planning.¹⁹

The Outridge booklet

The Pearling Disaster 1899: A Memorial (the Outridge booklet) was published anonymously in September 1899 to provide relatives of the dead and others "some account of the Europeans who were lost" six months earlier.²⁰ Although the booklet acknowledged and expressed sympathy to all killed in the disaster, it was published as a memorial for the Europeans, to be given to their relatives and friends. As such, it reflects European cultural discourses of 1899 (which will be discussed in Chapter

419–421. Kwok writes: "Much exploration of historical archives is concentrated in ecology and climate science, owing partly to rising concerns about the effects of climate change."

¹⁸ Pierre Nora and Marc Roudebush (trans.), "Between Memory and History: Les Lieux de mémoire", *Representations*, 26, Spring 1989, 8.

¹⁹ Alan Sharp, Craig Arthur, Bob Cechet, and Mark Edwards, "Tropical Cyclones", in Miriam. H. Middelmann (ed.), *Natural Hazards in Australia: Identifying Risk Analysis Requirements*, Canberra: Geoscience Australia, 2007, 50–51, <http://www.ga.gov.au/metadata-gateway/metadata/record/65444/> (accessed 18 March 2019). The authors write: "To assess the probability of impact by tropical cyclones in a particular area, there is a heavy reliance on historical data. ... For extreme events, newspaper records extending beyond the timescale of BOM's database, which dates back to 1909, will help in the assessment." See also Thomas R. Knutson et al., "Tropical Cyclones and Climate Change", *Nature Geoscience*, 3, No. 3, 2010, 157. The authors write that there has been an ongoing effort to improve historical cyclone data because the detection of climate change trends has been "impeded by substantial limitations in the availability and quality of global historical records of tropical cyclones."

²⁰ Anonymous 1899, 6.

Four). It is, as Whittingham described, a “mine of information”,²¹ but as the Outridge booklet declares in its Preface: “The information has been compiled from Press and official reports, and from the testimony of survivors.”²² The booklet, being the result of the collection and presenting of information gathered from those sources, can also be considered a work of journalism,²³ and as historian Hayden White warns, the stories journalists tell should not be confused with historical narratives because such journalistic stories are already “locked within the confines” of a contemporary chronicle.²⁴ The author of the Outridge booklet appears to be conscious that what he wrote would constitute an historical record of the event and he situates the work within a tradition of historical writing by quoting from classical works such as Shakespeare, Alexander Pope, Lord Byron, and the *Bible*.²⁵ The intention may have been to give the booklet the impression of objective authority, but it remains a subjective account written during a period of grief. It memorialises one culture, and particularly members of one family. The booklet’s form includes narration in the third person, a literary device often used to convey the impression of objectivity. It also uses the first person plural “we”, which can be considered an editorial “we” as it is used in newspapers when the author of an editorial refers to himself or herself as a spokesperson for a newspaper or, in this case, the Outridge family.²⁶ Although the booklet does not name an author, two individuals are closely associated with it: Percival Pitman Outridge, part-owner of several pearling fleets, and his brother Frederick Andrew Outridge, the major shareholder of the Outridge Printing Company, the booklet’s publisher. The booklet clearly identifies the perspective of

²¹ Whittingham 1958, 15.

²² Anonymous 1899, 6.

²³ Brian McNair, *The Sociology of Journalism*, London: Arnold, 1998, 4. McNair defines journalism as: “Any authored text, in written, audio or visual form which claims to be (i.e. is presented to its audience as) a truthful statement about, or record of, some hitherto unknown (new) feature of the actual, social world.”

²⁴ Hayden White, *The Content of the Form: Narrative Discourse and Historical Representation*, Baltimore: Johns Hopkins University Press, 1987, 172.

²⁵ Anonymous 1899. There are numerous examples in the booklet, including: “One touch of nature makes the whole world kin”, from Shakespeare’s *Troilus and Cressida*; the hymn *God Moves in a Mysterious Way*, by William Cowper; and “unknelled, uncoffined, and unknown,” from *Childe Harold's Pilgrimage* by Lord Byron.

²⁶ Anonymous 1899, 50. The author uses the editorial “we”, for example, when referring to Alfred St John Outridge; “... we know that he never forgot the training of his earlier years.” This also appears to be an attempt to convey impartiality and to suggest the booklet was not solely about the two Outridge family members killed. This may also be the reason why the author is not named.

one man throughout: Percival Pitman Outridge (hereafter referred to as P. P. Outridge).²⁷ The narrator and main author is almost certainly P. P. Outridge.

P. P. Outridge and the publisher Frederick Outridge were the brothers of Alfred St John Outridge and the uncles of 23-year-old Harold Outridge (son of another brother, Arthur) who died in the cyclone on the schooner *Sagitta*. P. P. Outridge was a managing partner in several of James Clark's pearling fleets, including the *Sagitta* and its fleet of luggers. He had for some time before the disaster been living on Thursday Island, the fleet's base, but was managing the fleet from Brisbane when the cyclone struck.²⁸ P. P. Outridge can be identified as the author where his observations are described, where he offers analysis and opinion, and where he interviews survivors. In those sections, the Outridge booklet can be considered a primary source. Where the booklet repeats information from newspapers and other sources, it is regarded, for the purposes of extracting information or scientific data, as a secondary source.²⁹

The Outridge booklet, being predominantly an "account of the Europeans who were lost", represents the perspective of a community that comprised four percent of the people killed (Chart 1.1), which was also the same proportion of Europeans employed in the Thursday Island fishing fleets, and a similar proportion of the more than 1,000 people at sea who experienced the destructive path of the cyclone as it crossed Cape Melville.³⁰ The surviving accounts of the non-European crews at sea

²⁷ Ibid., 6. The Outridge booklet's author speaks most often in the third person: "The nearest relatives of the late Alfred St John Outridge and Harold Arthur Outridge ... have decided to print this volume." Ibid., 7. "A short description of the fishery, written by one engaged in the industry, may not be out of place in this brochure," clearly refers to Percival Pitman Outridge as the only surviving member of the family still engaged in the industry; Ibid., 44. "To visit the scene of the disaster some weeks after the cyclone was the painful duty of one of the heaviest losers." P. P. Outridge visited Cape Melville and Thursday Island in May and June 1899; Ibid., 50. "When Walla saw Mr P. P. Outridge in May last, on the latter's visit to Thursday island, he was very much affected." "Shipping. Arrivals", *Week*, 30 June 1899, 15. P. P. Outridge returned to Brisbane on 22 June 1899.

²⁸ "Death of Mr. P. P. Outridge", *Telegraph* (Brisbane), 2nd Edition, 27 July 1938, 12.

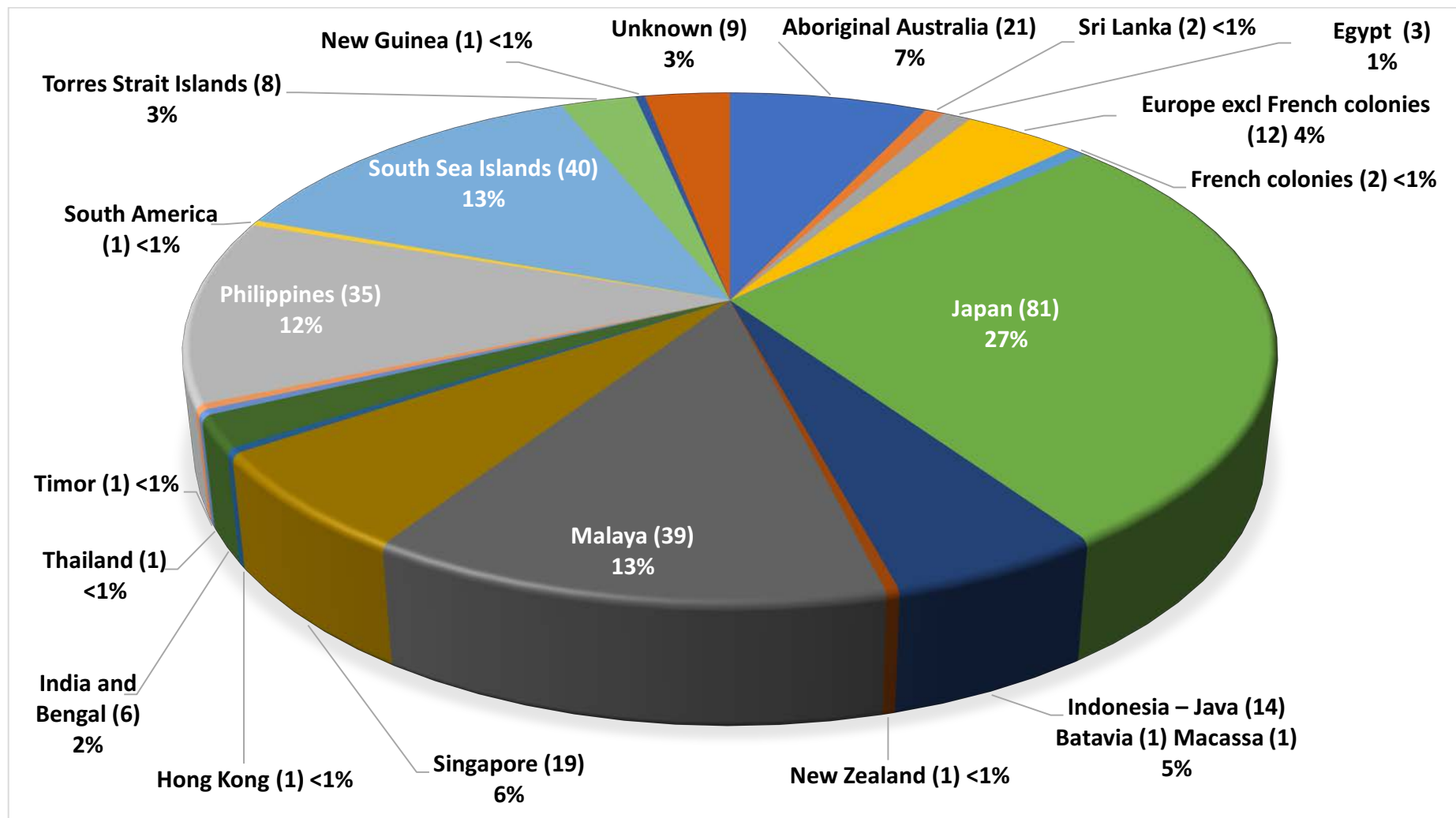
²⁹ The Outridge booklet is divided into sections. The "Preface", "Pearling Industry — General Description", "Some Statements of Survivors", "Salvage Operations", "Biographical Sketches", "Goode Island", "Sympathy with Bereaved", "Monument", and "Conclusion", are, apart from contributed biographies and letters, almost certainly written by P. P. Outridge. The "Tabulated Statement — Vessels Wrecked and Lives Lost", "Weather Report and Charts", "The Hurricane — Vessels under its influence", "Description — Experience of Constable Kenny", "Experiences of the Different Schooners", and "Assistance to the Wrecked", are drawn primarily from newspaper reports and official records.

³⁰ John Douglas, "Report of the Government Resident at Thursday Island for 1898", *QVP*, 1, 1899, 100. Four percent is the proportion of Europeans on the shipping articles registered with the Thursday

and the Aboriginal people ashore are also, in most cases, recorded by Europeans. Most of the hundreds of primary documents, including the reports and charts of Queensland meteorologist Clement Wragge, the journals and notes of ships' captains, and interviews with survivors, reflect the event as it affected the European community, including reports of the economic losses, the marine observations, and the anecdotes that conform to British narratives of social and racial behaviour. The accounts of the Aboriginal people ashore are rarely considered, although accounts exist in oral histories.³¹ (This thesis attempts to represent the experiences of all cultures and the Aboriginal experience will be examined in Chapters Three and Five.)

Island Shipping office (86 Europeans of 2,132 people). This is a similar proportion to the Europeans in the fleets anchored around Cape Melville (about 40 of the nearly 1,000 people on vessels); "Hurricane in the North", *Brisbane Courier*, 10 March 1899, 5. Pearl-reef fleet owner James Clark said: "The crews employed on these vessels would number in all not far short of 1,000." Walter Roth to Under Secretary Home Office, "Report Re Distribution of Gifts to Coastal Aboriginals", 9 April 1899, HOM/A23/99/5252, QSA, ID847561, 4. The Northern Protector of Aboriginals, Walter Roth, distributed aid to the Aboriginal people affected by the cyclone and found "upwards of 120 men, women and children" on the beach at Bathurst Bay and "45 or 50" people at Bathurst Head a month after the cyclone.

³¹ See for example, Regina Ganter, "Human Use of the Great Barrier Reef: An Oral History: Transcripts of Tapes", 1994, Ganter_R01 FTS1-96/MS3126, Australian Institute of Aboriginal and Torres Strait Islander Studies, Griffith University, Brisbane.



1.1 Nationalities and origins of people known to have been killed in the pearling disaster (based on 1899 terminology).³²

³² The chart is based on the list of known dead in Appendix 1, and reflects the terminology of 1899. For example, people of Batavia were distinguished from people from the rest of Java. The captains of two boats are also described as French, from New Caledonia, but their identities are unknown.

Scientific data from historical newspapers: A methodology

Most academic interest in the pearling disaster has not been by social scientists, but by natural scientists studying aspects of the tropical cyclone that caused it. Concerns about climate change and its impact on cyclone strength and frequency have led to an increasing focus on quantitative assessments of disaster risk as part of disaster preparation.³³ In the US, since 1990, there has been a program to review the National Hurricane Center's Hurricane Database (HURDAT), and in 2004, the US Hurricane Reanalysis Project began to extend its dataset of historical records for Atlantic hurricanes back to the 19th century, seeking more data to make statistical analysis more accurate.³⁴ Much of the data comes from newspapers, as well as weather bureaus, diaries, and ship logs.³⁵ In Australia, satellite databases for tropical cyclones have also been reassessed and historical databases, also called datasets, have been consolidated.³⁶ There has been no project to reanalyse the Australian historical data on the scale of the US Hurricane Reanalysis Project, even though there has been concern that "on the cusp of needing accurate intensity trend information, we are likely to be frustrated by doubts and uncertainties about the quality of much of the global TC [Tropical Cyclone] datasets."³⁷

³³ Sharp et al. 2007, 46. The authors write: "The detection and attribution of any trends in tropical cyclone frequency and intensity requires significant research." See also Trevor Jones, "Advances in Risk Assessment for Australian Emergency Management", *Australian Journal of Emergency Management*, 23, No. 4, November 2008, 12–13.

³⁴ Christopher W. Landsea et al., "The Atlantic Hurricane Database Reanalysis Project", in Richard J. Murnane and Kam-Biu Liu (eds), *Hurricanes and Typhoons: Past, Present and Future*, New York: Columbia University Press, 2004, 177–221; Christopher W. Landsea, "Counting Atlantic Tropical Cyclones Back to 1900", *EOS*, 88, 2007, 197–200.

³⁵ J. Fernandez-Partagas and H. F. Diaz, *A Reconstruction of Historical Tropical Cyclone Frequency in the Atlantic from Documentary and other Historical Sources, Part VI: 1909–1910*, Boulder, Colorado: Climate Diagnostics Center, US National Oceanic and Atmospheric Administration (NOAA), 1999. The report's aim was to determine more accurately the frequency of tropical cyclones in the Atlantic using historical sources, including newspapers, to check previous data.

³⁶ Jeffrey Callaghan and Scott B. Power, "Variability and Decline in the Number of Severe Tropical Cyclones Making Land-Fall Over Eastern Australia Since the Late Nineteenth Century", *Climate Dynamics*, 37, No. 3, 1 August 2011, 647–662; Blair Trewin, "An Enhanced Tropical Cyclone Data Set for the Australian Region", in *20th Conference on Climate Variability and Change*, New Orleans American Meteorological Society 2008; B. A. Harper, S. A. Stroud, M. McCormack, and S. West, "A Review of Historical Tropical Cyclone Intensity in Northwestern Australia and Implications for Climate Change Trend Analysis", *Australian Meteorological Magazine*, 57, 2008, 121–141; BOM, "Australian Tropical Cyclone Database", <http://www.bom.gov.au/cyclone/history/eastern.shtml> (accessed 18 March 2019); BOM, "List Of Disturbance IDS", http://www.bom.gov.au/clim_data/IDCKMSTM0S.csv (accessed 4 April 2018).

³⁷ B. A. Harper and Jeffrey Callaghan, "On the Importance of Reviewing Historical Tropical Cyclone Intensities", *Twenty-seventh American Meteorological Society Conference on Hurricanes and Tropical Meteorology*, 24–28 April 2006, Monterey, United States; See Sharp et al. 2007, 43. The authors write: "Equally important [in assessing the effect of climate change on tropical cyclone frequencies

In computing, a dataset is a collection of data, or information, usually relating to a specific area of research. For the purposes of this thesis, data is the information scientists extract from any document related to the cyclone. This data from historical documents is often included in datasets relating to historical cyclones, from which it is used as evidence to support an argument and conclusion. In the case of the cyclone that caused the pearling disaster, there appears to have been an assumption that data in these datasets has been tested in some way, and is therefore reliable and valid. However, nearly all the data shown in the official Australian Government dataset of Australian disasters, for example, appears to be from secondary sources using untested data that can be traced to the Outridge booklet.³⁸ In 2014, I reviewed primary sources for a scientific paper that revised the cyclone's central pressure, but there has been no epistemological review of all aspects of the 1899 cyclone.³⁹ Since that 2014 review, the historical methodology described in this chapter has been developed further to produce more reliable data from which evidence can be applied to investigate the cyclone's behaviour, track, and impacts, including its storm tide (as will be shown in Chapters Two and Five).

As mentioned, there has been increasing interest in disaster studies by scientists in Australia, but little corresponding interest by historians. Quantitative historical research, however, can provide an empirical foundation that will be shown to better explain the social impact of disaster, while untested data from secondary sources can be shown to distort an understanding of the social impacts.⁴⁰ The review of

and intensities] is the need to objectively reanalyse the existing historical datasets for the very significant changes that have occurred over the past 50 years." See also Joe Courtney and Andrew Burton, *Joint Industry Project for Objective Tropical Cyclone Reanalysis: Final Report*, BOM, 7 September 2018. <http://www.bom.gov.au/cyclone/history/index.shtml> (accessed 6 July 2019). The project set out to "produce a TC database for the Australian region (southern hemisphere between longitudes 90 and 160°E) covering the period from 1981 onwards." However, it was unable to produce a reliable database pre-1989 "due to a high proportion of missing or poorly navigated imagery in the early satellite record."

³⁸ Australian Government Department of the Attorney General, *Disaster Events with Category Impact and Location* (dataset), <https://data.gov.au/dataset/disaster-events-with-category-impact-and-location> (accessed 18 March 2019). The listing under cyclone *Mahina* repeats information from the Australian Disaster Resilience Knowledge Hub, citing untested data from secondary sources (see Chapter Five).

³⁹ Jonathan Nott, Camilla Green, Ian Townsend and Jeffrey Callaghan, "The World Record Storm Surge and the Most Intense Southern Hemisphere Tropical Cyclone: New Evidence and Modeling", *Bulletin of the American Meteorological Society*, 95, No. 5, May 2014, 757–765.

⁴⁰ Australian Institute for Disaster Resilience, "Cyclone Mahina 1899." The Australian Disaster Resilience Knowledge Hub states: "Over 100 Aboriginals died while trying to help the shipwrecked." As will be discussed in Chapter Three, there is no evidence for the deaths of 100 Aboriginal people.

evidence used to describe the pearling disaster has revealed an apparent misunderstanding by natural scientists of the importance of historiography. It has also revealed a misunderstanding by historians of how important quantitative research is in the field of disaster studies. This may be partly explained by the different perceptions of historians and scientists as to what constitutes meaningful information in historical documents. Meteorologists and climate scientists tend to favour quantitative techniques, seeking to understand the behaviour of a cyclone, for example, by measuring it. The cyclone is something that was once objectively measurable; it existed and was observable, and if a measurement exists, it may be useful in helping understand its strength and track, which can help predict future cyclones. Historians tend to use qualitative techniques to understand the behaviour of people and how they respond to the disasters that cyclones cause. The disaster, describing the impact of the cyclone on people, is more subjective. Historians also understand that, as postmodern historiography recognises, the evidence for the cyclone is not neutral, existing independently of a memory or a document, but is a concept of reality contingent on the document or memory itself.⁴¹ An historian recognises that, even if a source can be shown to be authentic and the evidence credible, the information may not reflect exactly what happened. As historian Louis Gottschalk points out, “What is meant by credible is not that it happened, but that it is as close to what actually happened as we can learn from a critical examination of the best available sources.”⁴² These qualifications are difficult to measure and for scientists to include in statistical models that use historical datasets to forecast tropical cyclones. However, a measure of credibility or validity from the best available sources would give scientists more confidence in their datasets.

Scientists researching historical disasters appear to rely heavily on newspapers for data.⁴³ Easier access through the internet to historical newspapers is now producing

⁴¹ Linda Hutcheon, *A Poetics of Postmodernism: History, Theory, Fiction*, New York: Routledge, 1988, 122.

⁴² Louis Gottschalk, “The Historian and the Historical Document”, in *The Use of Personal Documents in History, Anthropology, and Sociology*, prepared for the Committee on Appraisal of Research, Louis Gottschalk et al. (eds), New York: Social Science Research Council, 1945, 35.

⁴³ R. M. W. Musson, “The Use of Newspaper Data in Historical Earthquake Studies”, *Disasters*, 10, No. 3, 1986, 222. Musson writes: “... for most historical British earthquakes of the last three centuries they [newspapers] provide the bulk of the extant macroseismic data”; Cary J. Mock, “Tropical Cyclone Reconstructions from Documentary Records; Examples from South Carolina”, in Richard J. Murnane and Kam-Biu Liu (eds), *Hurricanes and Typhoons: Past, Present and Future*, New York: Columbia

a large amount of data, despite some uneasiness expressed about its reliability.⁴⁴ This appears to be an area of scientific research in which historians and historiography are missing. Historians' skills, says Marwick, "lie in sorting these matters out, in understanding how and why a particular source came into existence, [and] how relevant it is to the topic under investigation."⁴⁵ Historians also have an obligation to treat quantitative data as they would qualitative texts, and subject them to tests of reliability, such as the conventional use of historical method.⁴⁶

The historical method is a convention analogous to the rules of evidence in law where statements are interrogated and corroborated and witnesses are assessed as to their reliability and motives. Historians have devised various tests based on the historical method, designed to provide a process for source criticism. These tests generally emphasise a preference for primary sources, objectivity, and corroboration. A search of the literature has found, for example, articles by climate scientists on issues affecting the digitisation of historic climate data in archives,⁴⁷ and articles by sociologists on the use of newspapers as sources for socio-historical data.⁴⁸ Despite one interesting exception,⁴⁹ no methodologies to specifically address the credibility

University Press, 2004, 124. Mock writes: "Newspapers provide the most detailed source of tropical cyclones."

⁴⁴ Musson 1986, 222. Musson concludes his study for the British Geological Survey by saying that newspaper data provides an "adequate basis for studying many major earthquakes" although "the main limitations result from the fact that newspaper data has not been published with scientific intent" and is therefore "incomplete."

⁴⁵ Arthur Marwick, *The New Nature of History: Knowledge, Evidence, Language*, Basingstoke, UK: Palgrave, 2001, 27.

⁴⁶ John Tosh, *The Pursuit of History: Aims, Methods and New Directions in the Study of History*, London: Routledge, 2015, 113. Tosh writes: "Statistical know-how can only be effective if it is subject to the normal controls of historical method."

⁴⁷ S. Brönnimann et al., "A Guide for Digitising Manuscript Climate Data", *Climate of the Past*, 2, No. 2, 2006, 137–144.

⁴⁸ Roberto Franzosi, "The Press as a Source of Socio-Historical Data: Issues in the Methodology of Data Collection from Newspapers", *Historical Methods: A Journal of Quantitative and Interdisciplinary History*, 20, No. 1, Winter 1987, 5–16. Franzosi also had difficulty finding methodologies for assessing quantitative data in newspapers: "At best, measurement problems are acknowledged in hard-to-find footnotes or methodological appendices."

⁴⁹ J. Añel et al., "Obtaining Meteorological Data from Historical Newspapers: La Integridad", *Weather*, 72, No. 12, 2017, 366–371. This paper describes the analysis and validation of meteorological data in the late 19th and early 20th centuries from a Spanish observatory published in one Spanish newspaper. It used an historical methodology to validate the data by comparing the newspaper reports with surviving primary source notes from the observatory, as well as external meteorological observations. The authors write: "Cross-check of the seasonal cycle against independent databases verifies the validity of the work undertaken, as well as the reliability of the recovered series for use in studies of anthropogenic climatic change and for validating numerical models." It found some typographical errors and other anomalies that could be reasonably explained, but the study's scope was restricted to investigating one historical source for one newspaper.

of data in historical newspapers have been found, even though natural scientists are increasingly mining historical newspapers for data.⁵⁰ This may be because when social scientists apply the historical method to newspapers, they are “relatively unconcerned with problems of measurement.”⁵¹ Similarly, when natural scientists seek data from historical sources, such as newspapers, they are relatively unconcerned with the problems of historiography. The pearling disaster of 1899 is a significant event both scientifically and socially, and not only are both qualitative and quantitative research methods needed to accurately describe the social and scientific impacts, but the two can be shown to inform each other.

In producing for this thesis a methodology for assessing whether a piece of information or data constitutes good evidence, a useful foundation has been provided by the historian Louis Gottschalk.⁵² Gottschalk emphasises that, because few documents are completely reliable, the credibility of any particular piece of information should be tested regardless of the overall credibility of the source.⁵³ Such an approach is suitable for testing information within historical newspaper articles because, despite journalists’ efforts to be “accurate and precise” and editors to make sound judgments on what is important,⁵⁴ they are also subject to contemporary narratives, newspapers vary in their reporting practices, the quality of articles can vary widely between and within newspapers, they are prone to a variety of production errors, and the journalists and contributors of articles are often unidentified. In other words, this methodology treats each piece of information or data on its merits. I have adapted Gottschalk to apply four tests to each piece of

⁵⁰ See for example, A. Yzaguirre, M. Smit, and R. Warren, “Newspaper Archives + Text Mining = Rich Sources of Historical Geo-spatial Data”, *IOP Conference Series: Earth and Environmental Science*, 34, No. 1, 2016. This paper describes a pilot study by earth scientists using algorithms to extract data on floods from one newspaper in Nova Scotia, Canada. The methodology is used to obtain large amounts of data, but stops short of testing individual datum because it assumes a degree of validity already exists.

⁵¹ Franzosi 1987, 5.

⁵² Gottschalk 1945, 3–78. See also Martha Howell and Walter Prevenier, *From Reliable Sources: An Introduction to Historical Methods*, Ithaca, New York: Cornell University Press, 2001; C. Behan McCullagh, *Justifying Historical Descriptions*, New York: Cambridge University Press, 1984; R. J. Shafer, *A Guide to Historical Method*, Homewood, Illinois: The Dorsey Press, 1974.

⁵³ Louis Gottschalk, *Understanding History: A Primer of Historical Method*, New York: Knopf, 1950, 144.

⁵⁴ Yzaguirre et al. 2016, 1. The abstract of this paper describes an assumption about the quality of data derived from newspapers: “The effort of journalists to be accurate and precise means that there is often rich geo-spatial data embedded in the text, alongside text describing events that editors considered to be of sufficient importance to the region or the world to merit column inches.”

information, or data, within a document: Is the primary source able to tell the truth? Is the primary source willing to tell the truth? Is a secondary source able and willing to identify a primary source (to which the first and second questions can be asked) and report what was said accurately? Can the information be corroborated?⁵⁵

Is the primary source of the information able to tell the truth?

The preference is for sources closest to the event temporally and spatially. As Gottschalk says, "Witness's testimony tends to vary in proportion to ... his own remoteness from the scene in time and space."⁵⁶ This first test also goes to the credibility of the source. Is the source or the author identifiable and, if so, how competent were they to report what happened? An effort should be made to identify an author or witness, in order to judge competency on expertise, experience, and reputation. Were they in a position to report accurately? A witness can describe their own experience better than another witness's experience, and their ability to have seen or experienced what happened directly contributes to their ability to tell the truth. In what form was the testimony communicated? Journalists, like court reporters, are tasked with recording events accurately, but can be prone to human errors, such as mishearing words or misunderstanding what is said. As will be discussed, errors in translation and transmission also distort information.

Is the primary source willing to tell the truth?

People will sometimes lie about what they saw or experienced, sometimes to portray themselves in a better light, or to protect someone else. Might there have been a motive to lie? Might the source or author be biased in some way that would change their testimony? All witnesses are locked into contemporary political, cultural and social narratives. Pressure from peers, or leading questions from people in positions of power, can make it difficult for witnesses to tell the whole truth.

⁵⁵ Gottschalk 1945, 38.

⁵⁶ Ibid.

Is a secondary source able and willing to identify a primary source, and is what they said accurate?

If there is no primary source, does the secondary source identify a primary source? If not, it may be rumour. By considering historical evidence as analogous to the rules of evidence in law, it is worth considering the “chain of custody” for evidence. Can the information be shown to be passed from an identified primary source to the identified secondary source? How was it transferred? If both parties are identified, if there was opportunity for the information to be passed from one to the other, and if the parties can be shown to be reliable and acting in good faith, more confidence can be placed in the reliability of the information. If a chain of custody can be shown, can any or all parts of the information also be shown to be accurate?

Can the information be corroborated?

Information of a particular event is more likely to be credible if it can be corroborated by at least two primary sources. If it cannot be corroborated by a witness, can it be corroborated with other known facts? The intention here is to establish if the document is credible regardless of the author’s credibility. The credibility of the author, source, or newspaper alone is not enough to corroborate it.

Any piece of information within a document, such as a newspaper article, that passes all tests can be considered good evidence, as Gottschalk suggests,⁵⁷ but before applying the methodology to historical newspaper articles, aspects of newspaper production in the late 19th century must also be considered.

External criticism: The problem of syndicated newspaper articles

“No source can be used for historical reconstruction until some estimate of its standing as historical evidence has been made,” says British historian and historiographer John Tosh, who suggests that an historian, as someone who understands the historical context, is best placed to evaluate the reliability of a

⁵⁷ Ibid.

historical source.⁵⁸ The convention is first, to ensure that the document is what it claims to be. In the case of newspapers in 1899, external criticism is less a matter of identifying authentic documents from fabricated ones, than identifying original articles from syndicated copies. A widespread practice of newspapers of the period was to exchange articles with each other by telegraph. Many of the hundreds of newspaper articles reporting on the disaster in 1899 were articles copied from other newspapers, quoted verbatim, paraphrased, or re-written. Most were unattributed and often contained errors. For example, on Thursday 8 March 1899, four days after the disaster, a telegram was sent from the harbour-master at Townsville to the Brisbane Portmaster, Captain Almond. This telegram was reprinted verbatim and within quotation marks in the *Brisbane Courier* the next day, 9 March.

Captain Jenkins, of the steamer *Duke of Norfolk*, which arrived this morning from London, reports beacons on B and D Reefs down; those on A and F not seen. Throughout locality saw evidences recent severe hurricane. ... schooner *Crest of Wave* which had dragged from anchorage in Bathurst Bay, dismasted, and flying distress signals.⁵⁹

Newspapers often exchanged articles by arrangement, and the *Courier* article was sent by telegraph to Adelaide's *Advertiser* newspaper. The article appeared, paraphrased, in Adelaide the same day:

The captain of the *Duke of Norfolk* reports that many beacons have been washed away north of Cape Melville, and that a number of pearl shelling boats are stranded. He sighted the schooner *Crest of the Waves* dragging her anchor and flying distress signals.⁶⁰

The paraphrased story was sent by telegraph to the *Kalgoorlie Miner*:

Captain Duke, of the steamer *Norfolk*, reports that many beacons have been washed away to the north of Cape Melville, and that a number of pearl shelling boats are stranded. Captain Duke sighted a schooner on the crest of the waves dragging her anchor and flying distress signals.⁶¹

⁵⁸ Tosh 2015, 105.

⁵⁹ "Shipping", *Brisbane Courier*, 9 March 1899, 3.

⁶⁰ "Rough Weather at Sea. Boats Stranded. A Schooner in Distress", *Advertiser* (Adelaide), 9 March 1899, 5.

⁶¹ "The Recent Gale", *Kalgoorlie Miner*, 9 March 1899, 5.

The risk of error was amplified by telegraph repeater stations and this article, for example, passed through Eucla near the border of South Australia and Western Australia, where telegraph operators from each colony sat at opposite sides of a table, writing down the Morse Code, decoding the messages, and passing them through holes in a partition to their opposite numbers, who would recode the messages and then send them on.⁶² The reports of Adelaide's *Advertiser* and the *Kalgoorlie Miner* obviously do not corroborate each other because they are versions of the same report from the same source. Failing the discovery of the original telegram, the most credible source — the one with the least risk of error — is the *Brisbane Courier*, which received and printed verbatim the contents of the telegram from Townsville. The *Brisbane Courier's* offices in Queen Street were across the road from the Post and Telegraph Office and a few blocks from the Port Office in Edward Street, and its staff had direct access to the original telegram and its recipient, Captain Almond. All other reports can be considered syndicated copies of the *Brisbane Courier's* report. Of the hundreds of newspaper articles reporting the disaster and published in the Australian colonies at the time, most were syndicated copies of fewer than 20 articles, telegrams and letters originally published in Brisbane newspapers. Nearly all syndicated copies of these reports contain errors and are invalid. However, the authors of most of the original reports and their sources, which include ships captains, fleet owners, police and government officials, can be identified and an assessment made as to their credibility by the methodology.

Only one journalist, the editor of the *Cooktown Independent*, James Fowler, went to the disaster scene soon after the cyclone, on the steamship *Warrego*, dispatched by the Queensland Government to search for survivors.⁶³ No copies of the *Cooktown Independent* for that period have been found, but when Fowler returned to Cooktown he appears to have sent reports to the *Brisbane Courier* under the byline, "Our Special Correspondent."⁶⁴ Brisbane newspapers employed regional correspondents

⁶² Ann Moyal, *Clear across Australia: A History of Telecommunications*, Melbourne: Thomas Nelson Australia, 1984, 59–60. Moyal writes that it was not until 1901 that the partition was removed. In 1909, electromagnetic repeaters replaced the telegraph operators.

⁶³ "The Late Hurricane. Return of the *Warrego*. Reports from the Boats", *Brisbane Courier*, 20 March 1899, 6.

⁶⁴ "Personals", *Queensland Figaro* (Brisbane), 5 May 1883, 10. The article says: "James Fowler ... acts as a correspondent to some southern papers."

who were often politicians and journalists,⁶⁵ such as Fowler and the politician, Jack Hamilton.⁶⁶ Hamilton was also a correspondent writing articles for Brisbane newspapers, but he cannot be considered a primary witness for data because he was not near the scene at the time, despite claiming to be, and was not aboard the steamship *Warrego* when it went to the scene.⁶⁷ These correspondents are significant because newspaper reports originating from the *Warrego*'s rescue mission, including reports by "Our Special Correspondent", informed the Outridge booklet, which was to be the basis for the historical record and the original source of data upon which most scientific studies rely. Fowler and the *Warrego*'s purser, William Colvin, were responsible for the most detailed reporting of the cyclone to be published in the Brisbane newspapers, particularly the *Brisbane Courier*. The Cooktown store manager with the trading company Burns Philp, Arthur Richard Vidgen (hereafter A. R. Vidgen), who was also on the *Warrego*, was responsible for the letter that was to become the basis for the world record storm surge statistic.⁶⁸

Being able to identify an author and their sources, and to be able to judge the competency of both, helps establish through the methodology the credibility of their evidence. However, the credibility of any piece of information within an article does not rest with the credibility of the article, its author or their source alone. As Gottschalk explains: "Because the whole can be no greater than the sum of its parts, because the general credibility of a document can be no greater than the credibility

⁶⁵ Denis Cryle, *The Press in Colonial Queensland: A Social and Political History, 1845–1875*, St. Lucia: University of Queensland Press (UQP), 1989, 2–3.

⁶⁶ "The Late Hurricane", *Brisbane Courier*, 8 April 1899, 6. The article reports: "Mr. J. Hamilton, M.L.A., who has just returned from the North, and who was close to the locality affected by the late hurricane at the time it occurred, tells us that afterwards thousands of both land and water snakes were found on the coast. Porpoises were discovered 40ft. and 50ft above water level ..."

⁶⁷ "Notes and Notices", *Morning Post* (Cairns), 15 March 1899, 5. The politician John "Jack" Hamilton was reported to be in Cooktown, 160 kilometres south of Cape Melville, on 4 March campaigning in the Queensland election, having returned that morning from Munburra. On Sunday 5 March, he went further south to the Annan River tin mines, returning to Cooktown on Thursday 9 March; Telegram from John Hamilton to Premier Dickson, 9 March 1899, PRE/A3, QSA, ID89294. Hamilton writes: "Hope *Warrego* will be sent immediately to look for survivors of pearling fleet she is here now I have just arrived from Tin Mines kindly reply. J. Hamilton."

⁶⁸ "The Late Hurricane. Return of the *Warrego*", 6. The article reveals that the *Warrego* sailed from Cooktown for the scene on 10 March with William Colvin (the ship's purser and author, who is not named), Benjamin Ogilvie (Cooktown's Police Magistrate and Sub-collector of Customs), Arthur Richard Vidgen (Cooktown manager of the Burns Philp store and brother of Herbert Grahame Vidgen, manager of the schooner *Olive*), Ross Smith (son of fleet owner George Smith and a crew member joining the schooner *Crest of the Wave*), James Fowler (editor of the *Cooktown Independent*), with the *Warrego*'s Captain, George King, and the ship's pilot, John Graham.

of the separate details in it, corroboration by general credibility is weak corroboration at best.”⁶⁹ Correspondents, even experienced journalists, mishear words, misinterpret what is said, and leave out qualifying information. All documents, including this thesis, contain errors and biases. Newspapers are subject to production errors in the editing process and the transmission of information. The risks of errors in contemporary newspapers must be considered before applying the methodology.

Errors of transmission: Newspapers and the telegraph

Even the most reliable primary sources are not immune from human errors. Apart from telegrams and letters from witnesses published verbatim, the most significant newspaper reportage was by Colvin and Fowler, who were both on the *Warrego* when it was sent to the scene to search for survivors. Both can be considered primary witnesses to aspects of the disaster, as well as the authors of the primary accounts of other witnesses. Their reports published soon after the event, however, differ significantly. For example, the *Brisbane Courier* on 15 March published a report sent from Cooktown by telegram from “Our Special Correspondent”, presumed to be Fowler:

The steamer *Warrego* left Cooktown on Friday last, and anchored abreast Ingram Island on the 11th instant. The cutter *Spray* was seen, and Captain Dakle [sic], the master, stated that on the 4th instant he anchored at Stapleton Island, in company with a cutter owned by a Japanese.⁷⁰

The *Warrego*'s purser, Colvin, when he arrived with the steamship in Brisbane three days later, gave a more detailed account of the same event:

At about 8 a.m. three boats were seen at anchor off Ingram Island. They proved to be the *Spray*, a cutter of 2 tons, owned by Edward Moresby [sic], of York Island, and commanded by R. Hanson, a Dane; the *Dackle*, A11, owner Douglas, of Darnley Island, ‘Jimime,’ [sic] a York Islander, in charge. ... On being interviewed, Hanson reported that on the 4th he

⁶⁹ Gottschalk 1945, 46.

⁷⁰ “The Late Hurricane. Cruise of the *Warrego*. Further Particulars. Reports of the Pearling Captains. The Estimated Loss of Life”, *Brisbane Courier*, 15 March 1899, 5.

was anchored off Stapleton Island, in company with a Japanese cutter
...⁷¹

The first report, presumed to be by Fowler, has confused the name of the vessel *Dackle* with Captain Hanson of another vessel, *Spray*. The *Warrego*'s purser Colvin indicates that he witnessed an interview with Captain Hanson (Colvin states, "On being interviewed, Hanson reported ..."). The only journalist aboard the *Warrego* was Fowler, although he may not have conducted the interview.⁷² In any case, if "Our Special Correspondent" was Fowler, an experienced journalist, how did he make such a basic error as to confuse the name of the vessel with the captain? There are other significant differences between Fowler's 15 March article and Colvin's 20 March article, which describe similar information from the same sources in a similar chronology.

(Our Special Correspondent) ... at 10 o'clock it was blowing a gale, the glass standing at 29.10in.⁷³

(William Colvin) ... at 10 p.m. the Olive's glass was 29.60, and fell rapidly to 29.10.⁷⁴

(Our Special Correspondent) The bodies of twenty-seven coloured people were seen at Cape Melville.⁷⁵

(William Colvin) Vidgen went ashore on the mainland, and found twenty-seven live men.⁷⁶

(Our Special Correspondent) The wind at midnight on the 4th blew with hurricane force from east to north.⁷⁷

(William Colvin) ... at midnight, and from then till daylight [the wind] worked from west to north, blowing with hurricane force all the time.⁷⁸

"Our Special Correspondent's" 15 March report also contradicts many aspects of what appears to be his more reliable, but abbreviated, report the day before

⁷¹ "The Late Hurricane. Return of the *Warrego*", 6. The name Jimime is almost certainly a typographical error, and should be Jimmie.

⁷² *Ibid.* Only four passengers were reported to be aboard the *Warrego* when it returned to the scene, including James Fowler, the only journalist.

⁷³ "The Late Hurricane. Cruise of the *Warrego*", 5.

⁷⁴ "The Late Hurricane. Return of the *Warrego*", 6.

⁷⁵ "The Late Hurricane. Cruise of the *Warrego*", 5.

⁷⁶ "The Late Hurricane. Return of the *Warrego*", 6.

⁷⁷ "The Late Hurricane. Cruise of the *Warrego*", 5.

⁷⁸ "The Late Hurricane. Return of the *Warrego*", 6.

(published in the *Brisbane Courier* on 14 March, but written 13 March, the same day the *Warrego* arrived in Cooktown from the scene).⁷⁹

(Our Special Correspondent, 14 March) Thirteen porpoises were found 15ft. up the cliff at Flinders.⁸⁰

(Our Special Correspondent, 15 March) Many porpoises were found at a height of 50ft.⁸¹

The direction of the wind, the air pressure, and the height of porpoises on a cliff are significant observations for natural scientists studying the cyclone and its storm tide, so identifying the most reliable source is crucial to producing reliable findings.⁸²

Which is the more reliable of the reports? Fowler's article was sent "By Telegraph from Our Special Correspondent" from Cooktown to Brisbane, an expensive exercise that often meant a report was abbreviated.⁸³ Telegrams carried little or no punctuation, so when a report reached Brisbane the punctuation had to be added (Figure 1.1).

The lack of punctuation in telegrams often led to misinterpretation. For example, the Telegraph officer-in-charge at Cooktown sent a telegram to the Under Secretary and Superintendent of Telegraphs in Brisbane, which was reprinted in the *Brisbane Courier* as: "The Channel Island lightship and four men were lost at Douglas Spit. A coloured man reached the shore with two women after swimming for four days."⁸⁴

⁷⁹ It is possible that the reports of 14 and 15 March from Cooktown by "Our Special Correspondent", which in parts contradict each other, were written by two different "Special Correspondents". However, the similarity between the reports of Colvin and both reports of the Special Correspondent, including the chronology, suggests the authors were reporting the same interviews conducted aboard the *Warrego*.

⁸⁰ "The Late Hurricane. Further Particulars. Return of the Steamer *Warrego*. Loss of Life Estimated at 400", *Brisbane Courier*, 14 March 1899, 5.

⁸¹ "The Late Hurricane. Return of the *Warrego*", 6.

⁸² See for example, Nott and Hayne, 2000. The article states as evidence for the storm tide that porpoises were found "some 50 feet (15m) above sea level, up a cliff, on Flinders Island near Bathurst Bay." Mikhail Entel, "User Requirements in Australia for Storm Surge Monitoring and Forecasting", Powerpoint Presentation, *User Consultation Meeting on ESA Storm Surge Project*, Venezia, Italy, 29 September 2009. Entel writes: "Porpoises apparently found 15m up on cliffs on Flinders Island." H. E. Whittingham, "Storm Surges Along the Queensland Coast Associated with Tropical Cyclones", *Australian Meteorological and Oceanographic Journal*, 27, October 1959, 40. Whittingham quotes Norman Bartlett, *The Pearl Seekers*, London: Andrew Melrose Ltd, 1954, 251: "At Flinders Island searchers found thirteen dead porpoises fifty feet up a cliff ..."

⁸³ Richard B. Kielbowicz, "News Gathering by Mail in the Age of the Telegraph: Adapting to a New Technology", *Technology and Culture*, 28, No. 1, 1987, 33.

⁸⁴ "The Late Hurricane", *Brisbane Courier*, 14 March 1899, 5.

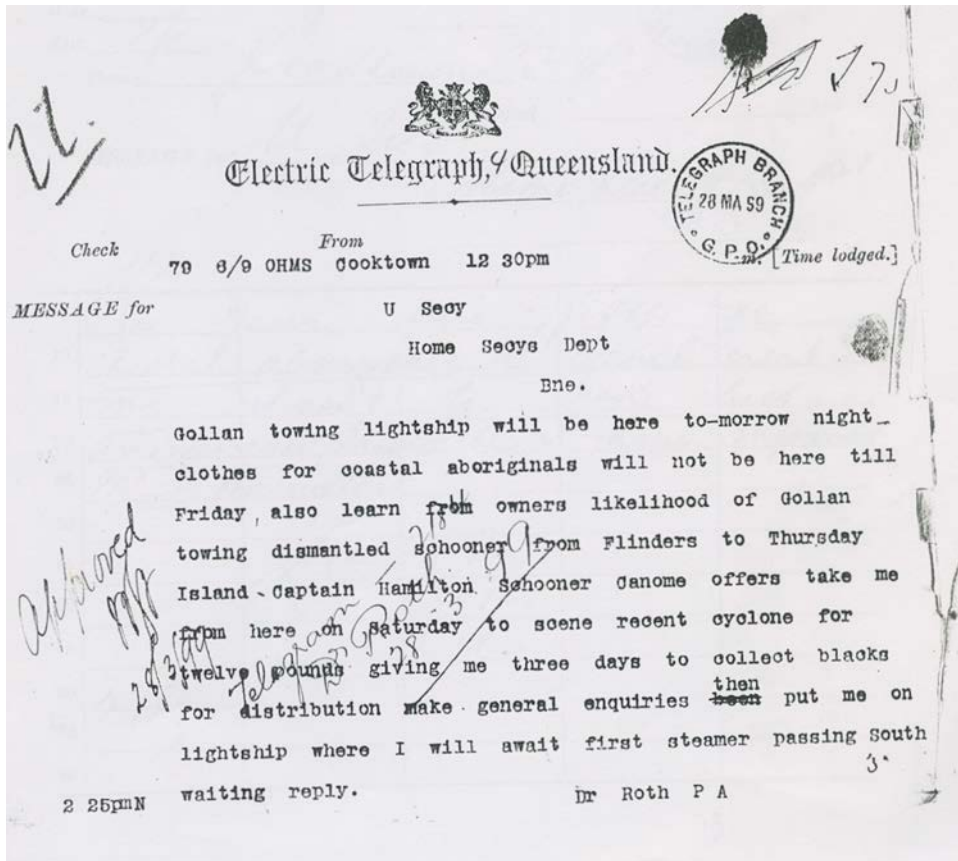


Figure 1.1 Example of a telegram from Walter Roth, Protector of Aboriginals, Cooktown, received in Brisbane, showing the lack of punctuation (from Roth, “Report Re Distribution of Gifts to Coastal Aboriginals”, 1899.)

There was no “Douglas Spit” at Cape Melville, but there was a man named Douglas Pitt who swam ashore with several women. The sender meant to say: “The Channel Island lightship and four men were lost. Douglas Pitt, a coloured man, reached the shore with two women after swimming for four days.” A telegraph operator had to interpret handwritten or dictated messages, which, after being sent by Morse code, had to be deciphered by another operator and, if taken down by hand, the handwriting deciphered again by an editor or typesetter before it was published. This added several layers to the risk of mishearing or misreading words and numbers.⁸⁵ Fowler’s reports sent by telegraph cannot be completely dismissed. The

⁸⁵ The interpretation of handwriting was an issue at the time and it remains an issue today for people dealing with handwritten records. The project manager at QBDM in Brisbane, Mike Vitobello, described in an interview with me on 26 June 2015 the difficulty of transcribing handwritten records held by the registry: “We can only go by what we understand the interpretation of the name to be and, of course, again the disparity of some of the registrars’ handwriting made it a lot of fun to interpret those names.”

methodology is applied to each piece of information separately, but the risk of errors is greater because of their transmission by telegraph.

The *Warrego's* purser, Colvin, "supplied" his report in person to the *Brisbane Courier* when the steamship docked at the Australian United Steam Navigation Company (A.U.S.N.) Wharf at North Quay in Brisbane on Saturday 18 March, thereby bypassing the vagaries of the telegraph.⁸⁶ That report published on 20 March contains many details that can be corroborated, so the report in general is more credible than Fowler's report of 15 March. Both newspaper reports were sent by telegraph to other newspapers and were quoted or paraphrased by Outridge, and the information they contained, including errors, entered the historical record.

Errors of translation: The grounding of the *Meg Merrilies*

The reports of primary witnesses can also be altered by being misheard or misunderstood. For example, on the night of 4 and 5 March 1899, the schooner *Meg Merrilies*, owned by Herbert Bowden and Patrick John Doyle, two prominent Thursday Island businessmen, and captained by William Naphtali Thompson, was grounded and wrecked on a coral reef in the north-western part of Princess Charlotte Bay. The positions before and after the cyclone of the schooners *Meg Merrilies* and *Tarawa*,⁸⁷ which anchored near each other, are significant because their movements as described by Outridge conflict with other evidence about the behaviour of this cyclone. The Outridge booklet describes the anchorage of the *Meg Merrilies* as being east of Pelican Island.

This schooner was anchored about a mile to the east of Pelican Island on the Saturday afternoon. She experienced a moderate breeze from the east, commencing at 7 p.m.⁸⁸

⁸⁶ "The Late Hurricane. Return of the *Warrego*", 6.

⁸⁷ The *Tarawa* was owned by the Queensland Pearl Shell Fishery Company Ltd, which is also referred to as the Queensland Pearlshell Fishing Company in the *Australian Register of Shipping* and the Queensland Pearl Fishing Company in the Outridge booklet. I have instead used the name by which the company refers to itself on company letterheads, in newspaper advertisements, *Lloyds Register of Shipping*, and *Sands Directory* of Sydney businesses.

⁸⁸ Anonymous 1899, 18.

The Marine Board of Inquiry reported 4 April 1899 that the schooner was anchored “north-west” of the Pelican Island.

... the ‘Meg Merrilies’ was anchored on the night of the 4th of March one mile north-west of Pelican island, wind S.E. moderate.⁸⁹

The schooner’s captain appears to describe his position as “south-east” of the island in a statement published on 20 March 1899.

I was anchored off Pelican Island, being south-east, distance 1min., on Saturday, 4th instant, at 4 p.m. A moderate breeze commenced from the east at 7 p.m. ...⁹⁰

Each source appears to place the schooner at a different position in relation to Pelican Island; east, north-west, and south-east. The official report of the inquiry into the ship’s stranding was dated 4 April 1899, four weeks after the disaster, and based on eye witness statements, including Thompson’s own account.⁹¹ The Outridge booklet, published in September 1899, used information from “Press reports.” The earliest of these was published in the *Brisbane Courier* on 20 March, and is a statement from the ship’s captain written days after the event.⁹² Thompson stated:

A moderate breeze commenced from the east at 7 p.m., changed to south-east, and increased in force, working to south-west at midnight.⁹³

Outridge’s description, published six months later, is a version of that 20 March report:

She experienced a moderate breeze from the east, commencing at 7 p.m., which, changing to the south-east, increased in force, working to the south-west at midnight.⁹⁴

⁸⁹ W. T. Atkinson, Reports and Decisions on Shipping Accidents, “Marine Board of Queensland Report on the Stranding of the *Meg Merrilies*”, 4 April 1899, HAR/81, ID84435. The report is dated 4 April 1899 and published 9 June 1899.

⁹⁰ “The Late Hurricane. Return of the Warrego”, 6.

⁹¹ Atkinson 1899. Atkinson concluded: “After taking the evidence of William N. Thompson, the master, Walter Harrison, clerk, and E. Richardson, sailmaker, I find the *Meg Merrilies* was anchored on the night of the 4th of March one mile north-west of Pelican island.”

⁹² *Ibid.*

⁹³ “The Late Hurricane. Return of the Warrego”, 6.

⁹⁴ Anonymous 1899, 18.

The Outridge booklet is a secondary source for those observations. The primary sources, Captain Thompson's statement and the Board of Inquiry finding, however, appear to contradict each other. Captain Thompson said he was anchored "off Pelican Island, being south-east", but Shipping Inspector Atkinson found the captain was anchored "north-west of Pelican Island."⁹⁵ A chain of custody for the evidence supports the reliability of Thompson's statement, passed by Thompson to the *Warrego's* purser Colvin,⁹⁶ who handed it to the *Brisbane Courier* in Brisbane, which published it beside Colvin's own account from the scene. In both cases, the authors can be identified and a reasonable judgment made that the reports were not distorted in transmission. Both sources are reliable. Using the methodology, can any other observations or any "insight into human nature"⁹⁷ explain the discrepancy?

Pelican Island is "a sandbank, with grass and a few bushes on it" and lies to the west of a two-mile long reef running north to south (Figure 1.2).⁹⁸ The wind during the day on 4 March was blowing from the east and south-east and strengthened to gale force during the evening. Although it is possible that the schooners were anchored in the afternoon on the eastern and exposed side of the island close to the island's reef, there appears to be no good reason to do so when an anchorage more sheltered from the south-easterly wind was available on the north-western side. However, both the *Meg Merrilies* and the *Tarawa* are described by Outridge as being anchored near each other on the island's exposed side. By 10 p.m. the wind direction had changed to south-west and by daylight it was blowing from the north-west.⁹⁹ At 3 a.m. the

⁹⁵ The inquiry into the stranding of the *Meg Merrilies* was the only official inquiry into the disaster. The schooner was the only one wrecked in which the captain survived and could therefore give an account of his actions. The schooner *Tarawa*, anchored nearby, was also stranded, but was later floated free.

⁹⁶ "The Late Hurricane. Return of the *Warrego*", 6. The article states: "The following account of the trip from Cooktown to Claremont Islands, and the various reefs in the vicinity, has been supplied by the purser of the steamer: ...". Ancestry.com.au, "W. C. Colvin, clerk, Burketown-Brisbane, s.s. *Warrego*", Reports of Vessels Arrived, Unassisted Immigrant Passenger Lists, 6 January 1898 (originally from NRS 1291, Reels 1263–1285, 2851, NSW State Archives); "Shipping", *Daily News* (Perth), 19 August 1899, 4. The reports together show that the purser on the *Warrego* between January 1898 and August 1899 was William Christopher Colvin.

⁹⁷ Tosh 2015, 105.

⁹⁸ Charles B. Yule and G. A. Browning, *Great Britain, Hydrographic Department, Australia Directory. Compiled Chiefly from Various Surveys Made by Order of the Lords Commissioners of the Admiralty Volume ii*, 5th edition, London: Hydrographic Office, Admiralty, 1898, 386.

⁹⁹ "The Late Hurricane. Return of the *Warrego*", 6. The *Olive*, anchored on the north-west side of Burkitt Island, five miles west of Pelican Island, reported that the wind "blew with hurricane force from south-west" after 10 p.m; Simon Edwin Munro's notes in his own hand, written 1899, supplied by

hurricane force wind from the north-west broke the *Tarawa's* cables and the schooner was blown onto Pelican Island,¹⁰⁰ but that grounding could not have happened if the *Tarawa* was anchored east or south-east of the island.

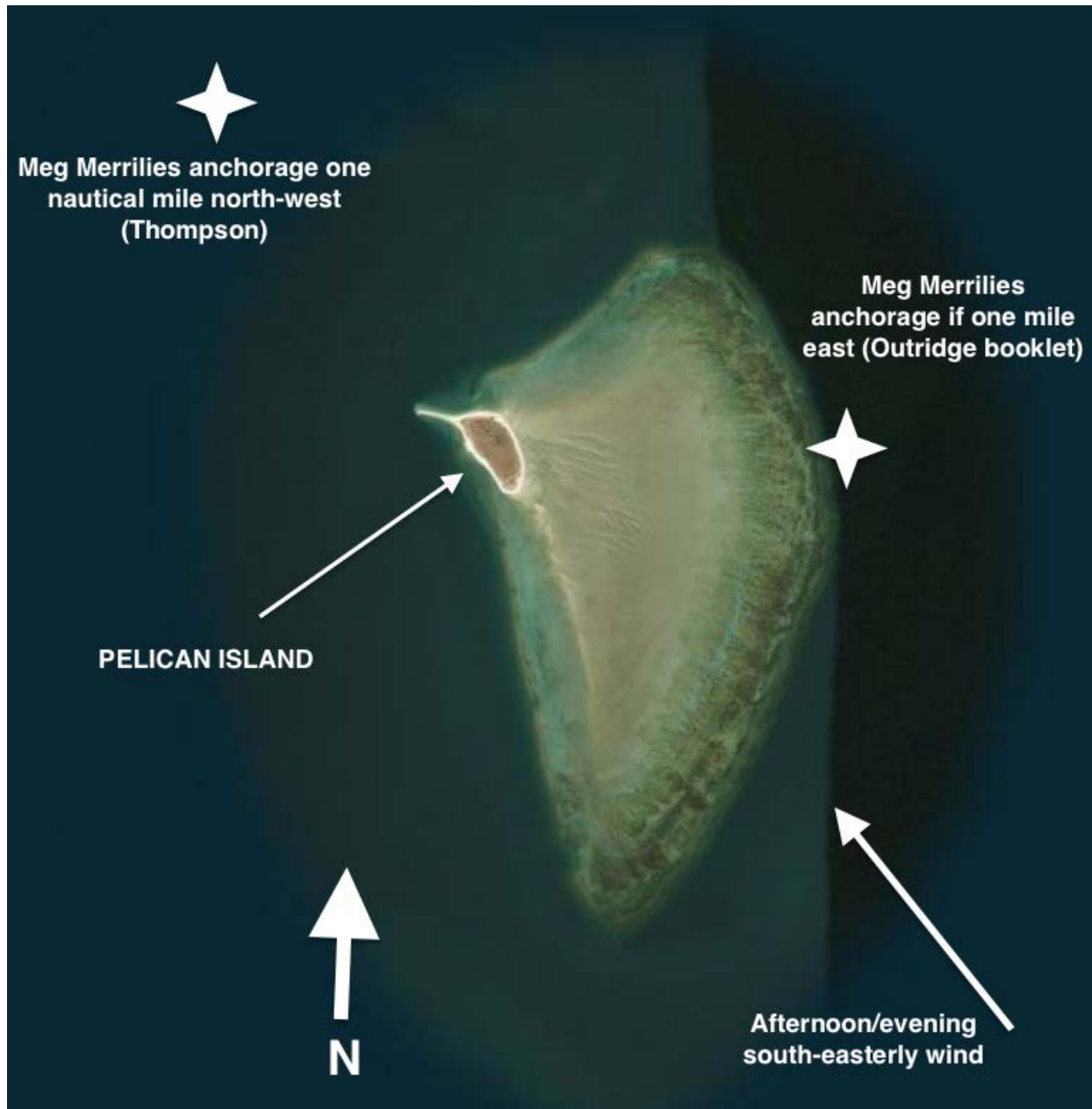


Figure 1.2 Pelican Island showing the anchorage of the *Meg Merrilies*, according to the Outridge booklet and Captain Thompson's statement. The methodology shows that the schooner was anchored north-west of Pelican Island, not east (satellite image by Google Earth).

Duncan McArdle, husband of Catriona Mary Munro McArdle, Edwin Munro's granddaughter. Photocopy from Munro family papers. Munro writes that at daylight the *Aladdin*, also at Burkitt Island, reported the wind was "W x N" (west by north).
¹⁰⁰ Ibid.

Both schooners were clearly anchored on the north-western side of the island, as stated in the Marine Department's report, so why did Thompson state; "I was anchored off Pelican Island, being south-east, distance 1min."? Thompson was using a nautical idiom, sometimes seen in ships' logs, to describe the bearing of a landmark in relation to the ship.¹⁰¹ In this case, he was not describing the schooner being south-east of Pelican Island, but Pelican Island bearing south-east of the schooner. Thompson also placed it not "one mile" distance as Outridge said, but "one minute", referring to one minute latitude and meaning one nautical mile, 1.15 miles, or 1.85 kilometres. An anchorage one mile or one nautical mile south-east of Pelican Island was implausible because it placed the schooner on top of a reef. Outridge appears to have realised the implausibility of a south-eastern anchorage because he adjusted the position to "east", perhaps to save Thompson from embarrassment. As Tosh warns, language is a product of history and we need to be "on our guard against reading modern meanings into the past."¹⁰² Tosh is describing errors in translation between the past and present, but there are also language differences between contemporary social groups, cultures, industries and individuals.¹⁰³

Misplacing the positions of the schooners might seem trivial or inconsequential, but it contributed to an error in a paper widely cited as a source for scientific data on the cyclone. In his 1958 paper, Whittingham avoided the anomalous grounding of the *Tarawa* against the wind by confusing the fate of the schooner *Tarawa* with the fate of the *Meg Merrilies* which grounded not on Pelican Island, but on a reef 10 miles (16 kilometres) to the north-east.¹⁰⁴ This was a fortunate mistake for Whittingham's

¹⁰¹ See for example, Captain John Thomas Bebrouth, "Logbook of the schooner Louise J. Kenney", 1903–1904, H13827, Queensland Museum. This contemporary log of a pearling schooner in the Torres Strait describes, for example, anchoring 9 December 1903 at 2 p.m., "Badu Hill bearing ExN ¼ N distance 12 miles", describing the position of Badu Hill in relation to the schooner. (Bebrouth's wife, Ann, is listed as owner of the lugger *Pirate*, which sank in the cyclone with the loss of four lives. See Appendix 1.)

¹⁰² Tosh 2015, 105.

¹⁰³ "Sudden Death of Captain W. N. Thompson", *Port Adelaide News*, 22 November 1918, 4. Thompson was 44 years old at the time of the disaster, born in a lighthouse, a veteran of the British Navy, and spent his life at sea; "Death of Mr. P. P. Outridge", *Courier-Mail* (Brisbane), 28 July 1938, 3. P. P. Outridge, 35 in 1899, was born in Brisbane, sailed yachts as a hobby, and became a manager of a Clark Combination fleet, but was primarily a businessman.

¹⁰⁴ Whittingham 1958, 25. Referring to the *Tarawa*: "About 3 a.m. several large waves washed away her whale-boat. She dragged her anchors 10 miles ..." Anonymous 1899, 20. Referring to the *Meg*

paper, because if he had repeated Outridge's claim, in which the *Tarawa* was grounded on Pelican Island from an anchorage east of the island, it would have contradicted the other data about the wind's direction. The error, however, raises questions about the conclusions Whittingham made in a study that was based on untested data from the Outridge booklet. Data from Outridge and Whittingham have been widely used as evidence in scientific papers since then.¹⁰⁵ (Other errors and their effect on the historical record are discussed in later chapters.)

Narrative influence: Captain Porter's reading

The methodology asks if a primary witness is willing or given the opportunity to tell the truth. As seen with the grounding of the *Meg Merrilies*, Thompson's statement appears to have been not only mistranslated in the Outridge booklet, but revised to fit a narrative. Nora argues that in the process of transforming history into memory, memory attempts to suppress and replace history,¹⁰⁶ and there is evidence that cultural narratives, as powerful influences on memory, exerted pressure on primary witnesses to change their testimony immediately after the pearly disaster. On the day the cyclone crossed the coast, 5 March, William Field Porter, the captain of the *Crest of the Wave*, the only schooner to survive the eye of the cyclone, told the captain of a passing steamer, *Duke of Norfolk*, that his barometer had recorded a lowest pressure of 26inHg, equivalent to 880hPa, near the cyclone's eye,¹⁰⁷ a reading so low that today it would constitute the lowest recorded central pressure of a cyclone in the southern hemisphere.¹⁰⁸ The next day, 6 March, Porter penned a

Merrilies: "About 3 a.m. several large waves struck the vessel, washing away the whaleboat (since picked up). The schooner dragged her anchors for 10 miles ..." Anonymous 1899, 20. Referring to the *Tarawa*: "... both cables parted at 3 a.m. on Sunday and the schooner was driven ashore on the only patch of sand on [Pelican] island."

¹⁰⁵ See note 11 above; R. C. Nelson, "Tropical Cyclone Storm Surges in Australia 1880 to 1970", in *Proceedings from Second Australian Conference for Coastal and Ocean Engineering*, Institution of Engineers, Australia, 1975; Jeffrey Masters, "World Storm Surge Records", Weather Underground [wunderground.com](http://www.wunderground.com/hurricane/surge_world_records.asp), 2014, http://www.wunderground.com/hurricane/surge_world_records.asp (accessed 18 March 2019); Entel 2009.

¹⁰⁶ Nora 1989, 9.

¹⁰⁷ "The Steamer Duke of Norfolk. Captain Jenkins Explains", *Brisbane Courier*, 18 March 1899, 8.

¹⁰⁸ See *South Pacific Enhanced Archive for Tropical Cyclones (SPEARTC)*, [Seasons 1841–2014] Asia Pacific Data Research Center, University of Hawai'i, Mānoa. updated 25 October 2017, <http://apdrc.soest.hawaii.edu/projects/speartc/> (accessed 18 March 2019). Cyclone *Winston* struck Fiji in 2016 and had an officially registered central pressure 884hPa (26.1inHg) before it made landfall, and is considered the most intense tropical cyclone recorded in the southern hemisphere. The world record lowest minimum sea level pressure of a cyclone, 870hPa (25.69inHg), was attributed in 1979 to typhoon *Tip* in the western North Pacific.

letter to his parents describing in his own words the air pressure falling to 26inHg “about 4.30 a.m.”¹⁰⁹ Three days later he conveyed this same observation to Captain Craig, the pilot of another steamship *Kasuga Maru*.¹¹⁰ However, in the *Brisbane Courier* newspaper on 15 March, Captain Craig expressed his doubts about the air pressure reading of 26inHg (880hPa) because, as Craig said, he had “been in some of the worst typhoons ever experienced in the China seas; but he had never known the glass to fall lower than about 27.30 [924.48hPa].”¹¹¹ Weeks later, Porter’s revised log appeared in a report to the Queensland Government with the reading increased to 27inHg (914hPa). The time it was measured was also altered from 4.30 a.m. to 4.45 a.m.¹¹² None of the captains of the other schooners anchored in Bathurst Bay who experienced the cyclone’s eye, and who therefore could corroborate the reading, survived. The captains of the schooners *Olive* and *Aladdin*, anchored 70 kilometres to the north-west, recorded lowest readings of 29.10inHg¹¹³ (985.4hPa) and 29.09inHg¹¹⁴ (985.1hPa) respectively. Their lowest readings were significantly higher than Porter’s reading, and they may not have understood how atmospheric pressure can fall exponentially closer to the cyclone’s centre (Figure 1.3). The evidence suggests that Porter, then 33 and an experienced sea captain in Australia and New Zealand, was persuaded to revise his reading.

Porter’s original report of 26inHg (880hPa) comes from a reliable primary source; his letter to his parents in Auckland, including his father who was a master mariner,¹¹⁵ reprinted verbatim in the *New Zealand Herald*.¹¹⁶ That he believed this was the correct reading at the time is corroborated by two reliably reported conversations with the captains of passing steamships. Porter was a respected ship’s captain, and used a ship’s barometer to measure the observation. Although extraordinarily low,

¹⁰⁹ William Field Porter, “The Great Hurricane at Queensland. A Struggle for Life. An Auckland and His Wife and Child. Forcing the Blacks to the Pumps”, *New Zealand Herald* (Supplement), 1 April 1899, 1.

¹¹⁰ “Report by the *Kasuga Maru*”, *Brisbane Courier*, 15 March 1899, 5.

¹¹¹ *Ibid.*

¹¹² Douglas 1899, 100.

¹¹³ “The Late Hurricane. Return of the *Warrego*”, 6.

¹¹⁴ Munro 1899.

¹¹⁵ William Porter, Miranda Field Law, and Garry Law, *Recollections of a Voyage to South Australia and New Zealand Commenced in 1838, Recorded at Huntly 1907*, Auckland, NZ: Maruiwi Press, 2007, 83.

¹¹⁶ Porter, “The Great Hurricane at Queensland. A Struggle for Life”, 1. The letter written in Bathurst Bay can be shown to have been sent by steamer to Auckland, where it was passed to the newspaper for publication.

the barometric pressure is partly supported by the world record storm tide associated with the cyclone, as well as the descriptions of the destruction and the disaster's high death toll.¹¹⁷ The methodology shows that the later report of 27inHg (914hPa) is less reliable. The revised reading appears in the report by the Thursday Island Government Resident John Douglas to the Home Secretary on 13 April 1899,¹¹⁸ and in the Outridge booklet in September 1899.¹¹⁹ There is evidence that Porter was under pressure to change his observation because it did not fit the experience of his peers. The reading of 26inHg (880hPa), being earlier and better sourced, is more reliable than the later report of 27inHg (914hPa). There is no evidence that the adjustment was based on anything other than the opinions of his peers. However, because the Outridge booklet, written by one of those peers, reported the claim of 27inHg (914hPa), Whittingham and subsequent meteorologists appear to have assumed it is true, and 914hPa has remained the official central pressure for the cyclone.

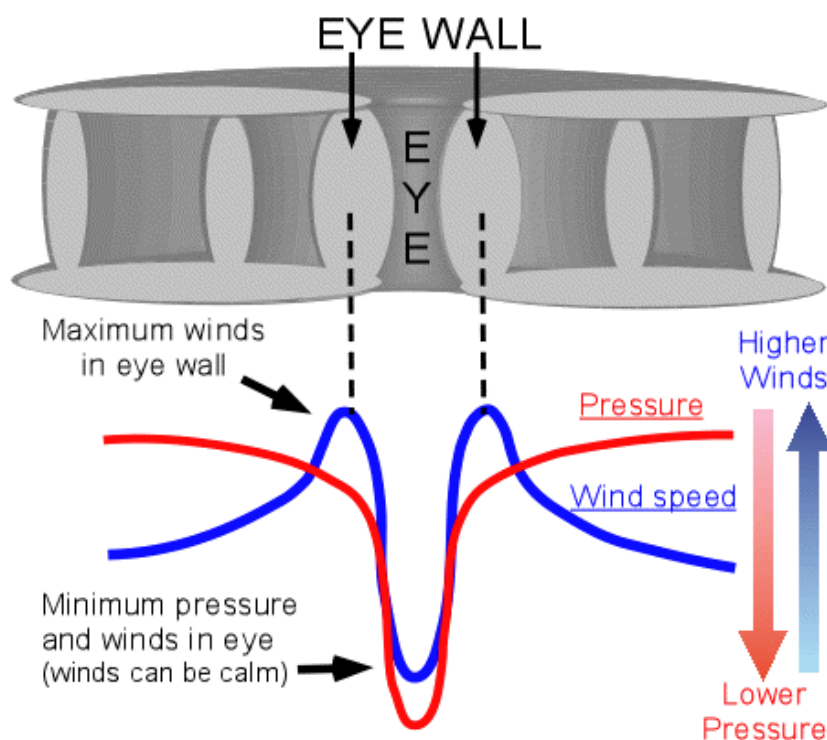


Figure 1.3 Air pressure and wind distribution across a cyclone, from the University of Illinois Department of Atmospheric Sciences WW2010 Project, [http://ww2010.atmos.uiuc.edu/\(Gh\)/guides/mtr/hurr/stages/cane/pswd.xml](http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/hurr/stages/cane/pswd.xml) (accessed 18 March 2019).

¹¹⁷ Nott et al. 2014.

¹¹⁸ Douglas 1899, 100.

¹¹⁹ Anonymous 1899, 26. The account quoting Porter is prefaced: "The following account is from information supplied by Captain Porter:" It is paraphrased and can be considered a secondary source.

There are qualifications, though, that must be applied to the reading of 26inHg (880hPa). Firstly, the difference between 26inHg (880hPa) and 27inHg (914hPa) is significant. Small changes in air pressure help ships captains predict the weather and under normal circumstances they carefully record the air pressure to two decimal places. As mentioned, the captains of the *Aladdin* and the *Olive*, anchored near each other, but 70 kilometres away from the cyclone's centre, reported their lowest readings to two decimal places and those readings were remarkably similar; 29.10inHg¹²⁰ (985.44hPa) and 29.09inHg¹²¹ (985.10hPa). The log supplied by Douglas and attributed to Porter states, "At Dark: Barometer 29.60" (1002.37hPa) and at 11 p.m., "29.40" (995.60hPa).¹²² In Porter's letter to his parents and in the observations after 11 p.m. in the ship's log attributed to him, the pressures after midnight are reported as whole numbers; 28inHg (948hPa) at 1 a.m.,¹²³ and 26inHg (880hPa) at 4.30 a.m.¹²⁴ Between 11 p.m. and 4.30 a.m. the wind was hurricane force and increasing in strength, the schooner was dragging its anchors towards the outer reefs of the Great Barrier Reef, and the ship was leaking and in danger of sinking. During this time, the wind was so strong that the force against the bare masts caused the schooner to breach, and the masts had to be cut away. Porter's wife and baby daughter were in the cabin and it is reasonable to assume it was too rough, and Porter was too busy, to write in his log, although he had both the opportunities and motive to read the barometer. If Porter had a mercury-based marine Fortin barometer he would not have been able to adjust it for temperature in such a sea and so the observation of "26" suggests that Porter was not confident that the pressure was 26.00inHg (880.46hPa) exactly, but that it was observable as 26inHg unadjusted for temperature. Allowing for a margin of error is appropriate, but Porter did not qualify his report, or say it was "26 and a half inches", for example. It is reasonable to assume that Porter believed it was close enough to 26.00inHg (880.46hPa) that it did not need qualifying.

¹²⁰ "The Late Hurricane. Return of the Warrego", 6.

¹²¹ Munro 1899.

¹²² Douglas 1899, 100.

¹²³ Ibid.

¹²⁴ Porter, "The Great Hurricane at Queensland. A Struggle for Life", 1.

Secondly, Porter's reading was taken in the cyclone's eye wall and not in the eye where the pressure would have been even lower (Figure 1.3).¹²⁵ Porter's reading under the circumstances could be considered 26.00inHg (880.46hPa) with a margin of error, for example, of less than 0.5inHg (16.93hPa), but the central pressure of the cyclone would be lower than Porter's reading because the air pressure was still falling when he took that reading. A degree of scepticism about such a low atmospheric pressure is warranted, but the best evidence suggests that the pressure was 26inHg (880hPa) in the eye wall and that the cyclone's central pressure was lower than this. (The central pressure of the cyclone is further discussed in Chapters Two and Five.)

Narrative influence: Sugimoto's account

Sometime after 5 a.m. on 5 March 1899 in Bathurst Bay, when the eye of the cyclone passed and the winds came from the north and north-west, the schooner *Silvery Wave* began to break up. The *Brisbane Courier's* "Special Correspondent" aboard the steamer *Warrego*, presumed to be the editor of the *Cooktown Independent*, James Fowler, reported that, "One Malay stayed aboard, and came ashore on a plank."¹²⁶ The *Warrego's* purser Colvin reported the survivor as having said that, "Captain Jefferson and Messrs. Nicholas and Atthow had previously gone off in a dingey [sic], but were immediately swamped, and were seen no more."¹²⁷ Three days later the *Brisbane Courier* issued a correction:

This seemed an unlikely story on the face of it, besides casting reflections on the humanity of Captain Jefferson, who was not in the least likely to desert one of his crew in that fashion. Now, however, the Malay states that a great sea came on board, washing overboard the deckhouse, in which Captain Jefferson and all the crew, white and coloured, were congregated.¹²⁸

¹²⁵ Ibid. Porter wrote that at 4.30 a.m., "the barometer was down to 26. Then came a lull."

¹²⁶ "The Late Hurricane. Further Particulars", 5. The Special Correspondent, presumed to be Fowler, reports: "The *Silvery Wave* went down at 5 o'clock on Sunday morning. One Malay stayed aboard, and came ashore on a plank."

¹²⁷ "The Late Hurricane. Return of the *Warrego*", 6.

¹²⁸ "The Recent Hurricane. A Correction", *Brisbane Courier*, 23 March 1899, 4.

The *Brisbane Courier's* new information came from one of the vessel's owners, and later the Outridge booklet author, P. P. Outridge, who, the *Brisbane Courier* said, "was naturally surprised that Captain Jefferson should have acted in the manner first ascribed to him." P. P. Outridge was in Brisbane at the time and could not have spoken personally to the survivor, whom he identified as a Malay man. Two months later, P. P. Outridge spoke to the survivor on Thursday Island, now identified as a Japanese man named Sugimoto, a diver on one of the fleet's luggers.¹²⁹ According to P. P. Outridge, Sugimoto had reported sick the day before and managed only to get onto the deck at 7.30 a.m. on Sunday, after the aft house with the white officers had been carried away by a wave.¹³⁰ The report of the *Silvery Wave's* captain and white officers abandoning ship had been quickly asserted not to be true because Jefferson, as a white officer, could not have "acted in the manner first ascribed to him."¹³¹ The Outridge booklet later called Sugimoto's own survival story into question: "It is strange that Sugimoto should have been the only man saved from the *Silvery Wave*. He was a sick man, and was not of a very powerful constitution."¹³² This appears to be an attempt to restore the European narrative of the white man as hero and all others somehow untrustworthy. P. P. Outridge interviewed Sugimoto, so this account can be considered a primary source, although the interview took place more than two months after the event and it contradicts the initial reports.

The methodology asks, is the primary source willing to tell the truth? The stated purpose of the Outridge booklet was to control the narrative by providing an "account of the Europeans"¹³³ and to "bring comfort to the hearts of the bereaved."¹³⁴ As a memorial to the Europeans, it reflected contemporary European attitudes and racial stereotypes. For example, in describing the pearling crews enjoying their time off on Saturday afternoons and Sundays, P. P. Outridge writes:

¹²⁹ Anonymous 1899, 32–33. Outridge was at Thursday Island in May, when Sugimoto was still in hospital.

¹³⁰ *Ibid.*, 32.

¹³¹ "The Recent Hurricane. A Correction", 4; Also see "The Recent Storm", *Torres Straits Pilot*, 1 April 1899. This article repeats the story of Jefferson's desertion with a note by Alexander Corran, the editor of the *Torres Straits Pilot*: "This story is untrue — Ed. 'T. S. P.'"

¹³² Anonymous 1899, 32.

¹³³ *Ibid.*, 6.

¹³⁴ *Ibid.*, 71.

Most of the coloured men are but ‘children of a larger growth,’ and they enjoy their holiday with just such abandon as children let loose from school. The officers take care that liberty does not degenerate into licence.¹³⁵

The suggestion, then, by a non-European man that the European officers abrogated a responsibility to care for their men by abandoning ship, and that the “coloured” man who reported their desertion could be the only survivor of the schooner, were details that did not match the European narrative. P. P. Outridge discredited the source and proposed a counter narrative that conformed with contemporary racial narratives. Despite its narrow cultural focus, the Outridge booklet has been accepted as the authoritative account of the disaster, a de facto official history given credibility by Whittingham and, later, by scientists and journalists who have treated it as the main source of evidence for the pearling disaster and its cyclone. As Australian historian Paula Hamilton warns, official histories are told by storytellers who avoid and suppress conflicting accounts and, “since all memory is subject to structures of power in any society”, historians need to do more to investigate how some memories are erased and others merge with cultural narratives.¹³⁶ Such is the case with the pearling disaster where the Outridge booklet has become its official history, but which, in fact, marks a point where history and memory diverge, where evidence that does not conform with accepted narratives of European society or maritime experience is discarded, and, as will be shown, where myths begin.

Conclusion

The Outridge booklet and Whittingham’s 1958 scientific paper have been considered the authoritative accounts of the 1899 pearling disaster, and the information they published is used predominantly by scientists in the burgeoning fields of climate change and disaster studies. A historiographic review reveals significant differences between the claims of the Outridge booklet (and hence much of Whittingham) and information from earlier, primary sources. The methodology developed to test the validity of those sources, particularly historical newspapers, shows by example that

¹³⁵ Ibid., 17.

¹³⁶ Paula Hamilton, “The Knife Edge: Debates about Memory and History”, in Kate Darian-Smith and Paula Hamilton (eds), *Memory and History in Twentieth-Century Australia*, Melbourne: Oxford University Press, 1994, 20.

the primary information from the disaster came under pressure within days of the event to conform with cultural and social narratives. Significant quantitative observations of the cyclone, such as barometer readings, wind direction, and the height to which porpoises were washed ashore, can also be shown to be subject to errors stemming from newspaper production, including the syndication of stories that compounded errors associated with their transmission by telegraph. The methodology recognises that each piece of information must be assessed separately, a task that can only be done by collecting a wide range of information from numerous sources (as described, more than 100 vessels and 1,000 people at sea experienced the cyclone).

In reconstructing the disaster from primary sources in the following chapter, the methodology is explained in the context in which aspects of the disaster occurred. In choosing which aspects to describe, this thesis can also be considered subjective, and this is acknowledged. However, key aspects of the methodology, including close interrogation of sources, a preference for primary sources, and corroboration can be shown to produce more reliable data for scientists as well as a more reliable foundation for understanding the social impacts of the disaster. Because the disaster is a consequence of the impact of a natural event (a cyclone) on a social activity (the pearling industry) the following chapter will examine the behaviour of the cyclone and the operations of the pearling fleets in 1899, before reconstructing the disaster, based on the best evidence, as it unfolded.

CHAPTER 2

The Hurricane

Now all our boats have gone and only a hulk of a schooner left — but so far we have our lives. Dead bodies have been going by us all day.

William Field Porter in a letter to his parents in Auckland, dated *Crest of the Wave*, Cape Melville, 6th March 1899.¹

The pearling disaster of 1899 was the result of a tropical cyclone, later named *Mahina*, passing over the Thursday Island pearling fleets anchored near Cape Melville on the morning of 5 March 1899. How Australia's most severe recorded cyclone came to intersect with such a large congregation of vessels is understood by considering both the history of the pearling fleets and the meteorological behaviour of the cyclone. This chapter begins by providing a background to the pearling industry and the cyclone's genesis.² The methodology described in Chapter One is then used to extract the best evidence from relevant documents to describe more accurately the sites at which key observations were made, including the site of the world record storm tide. By more accurately describing the positions of the observers, their observations can be better corroborated and used with more confidence to reconstruct the event. (Meteorologically significant observations to be used in the reconstruction in Chapter Five are listed in Appendix 2.) The latter part of the chapter will recount, chronologically from selected observations, how the disaster unfolded. The personal experiences of those at sea and ashore, including the Indigenous people and the pearling crews, will be assessed in Chapter Three.

The pearling industry

Indigenous people across northern Australia had been using the shell of the pearl oyster, *Pinctada maxima*, for ornaments and tools for centuries before Europeans

¹ William Field Porter, "The Great Hurricane at Queensland. A Struggle for Life. An Aucklander and His Wife and Child. Forcing the Blacks to the Pumps", *New Zealand Herald* (Supplement), 1 April 1899, 1.

² There is a large body of research on the pearling industry, and this thesis does not attempt to replicate the work of researchers such as Regina Ganter and Steve Mullins, whose books and articles are listed in the bibliography and whose relevant work is cited.

began commercially exploiting pearl shell in Australia during the 1860s.³ In Queensland, Captain William Banner collected pearl shell on Tudu (Warrior) Island in 1869 and within a decade pearling fleets were operating across the Torres Strait.⁴ The discovery of the Australia pearl shell beds coincided with technological improvements in the manufacturing of buttons and ornaments in Europe, fuelling the growth in demand in the late 19th century.⁵ At first, the shell could be collected close to shore, but when those beds were exhausted, specialist divers were employed to collect shell from depths of five or six fathoms. As pearl shell prospecting moved further from shore, larger vessels replaced smaller dinghies. Western Australia had also become a major source of pearl shell, and in the 1870s diving suits with air pumps allowed divers to reach shell below six fathoms, operate further from shore, and spend more time collecting shell. This led to a system of “floating stations”,⁶ in which company-owned schooners accompanied by fleets of luggers travelled further and stayed at sea longer.⁷ As new luggers were built for the expanding industry, the design evolved to accommodate the new diving technology and the environments in which the divers worked.⁸ In 1884, the *Illustrated Sydney News* described luggers built in Sydney for the Thursday Island pearl shell business.

These handy little vessels range from six to fourteen tons burden, are of yacht-like model, can thrash a passage against a head breeze, or run down the wind at a clipping pace under a pair of French lugs; and in a clock calm can be easily propelled by sweeps.⁹

³ John P. S. Bach, *The Pearling Industry of Australia: An Account of its Social and Economic Development*, Canberra: Department of Commerce and Agriculture, 1955, 8.

⁴ Stephen Mullins, *Torres Strait: A History of Colonial Occupation and Culture Contact 1864–1897*, Rockhampton: CQUP, 1994, 77–78.

⁵ John P. S. Bach, “The Political Economy of Pearlshelling”, *The Economic History Review*, 14, No. 1, 1961, 106.

⁶ Stephen Mullins, “To Break ‘The Trinity’ or ‘Wipe Out The Smaller Fry’: The Australian Pearl Shell Convention of 1913”, *Journal for Maritime Research*, 7, No.1, 2005, 219–222.

⁷ Technically, a lugger is lug-rigged, with a square lug sail raised on a spar that overlaps the mast, but the term lugger in the 1880s came also to describe ketches that were gaff-rigged, with the sail raised on a smaller spar, or gaff, attached to the mast. These small boats by 1899 weighed eight to sixteen tons and had two masts, the mainmast taller than the mizzen. See Garry Kerr, *Craft and Craftsman of Australian Fishing*, Portland, Victoria: Mains’l Books, 1985, 232–253.

⁸ Graeme Henderson, “The Australian Pearling Lugger and Maritime Archaeology”, in W. Jeffrey and J. Amess (eds), *Proceedings of the Second Southern Hemisphere Conference on Maritime Archaeology*, Adelaide: South Australian Department of Environment and Planning, 1983, 281.

⁹ “Pearl Fishing in Torres Straits”, *Illustrated Sydney News*, 25 October 1884, 3.

In 1886, Clark took his fleet of schooners and luggers to Western Australia, but in 1891 returned to the Torres Strait where he began to cultivate the pearl oyster and invest in more fleets, increasing his influence in the industry.¹⁰ By 1899, Broome and Thursday Island were supplying more than half the world's pearl shell market.¹¹ In Queensland, pearl shell was the colony's fourth most valuable export behind meat products, sugar, and wool.¹² The annual value of pearl shell declared to Customs on Thursday Island in 1898 was £109,401, the equivalent of about \$A16.5 million today.¹³ (The economic, political, and cultural background of the industry will be described in its context with the White Australia Policy and Federation in Chapter Four.)

By 1899, the pearling industry was dominated by large companies and Clark, with shares in six fleets, had the largest stake.¹⁴ Clark, who lived in Brisbane, oversaw the fleets with his brother-in-law, George Smith, who lived on Thursday Island.¹⁵ Individual fleets were owned by companies in which the shareholders included fleet managers and ships captains. The complex arrangement meant that other businessmen formed close business arrangements with Clark and by 1899, these fleets were known collectively as the Clark Combination.¹⁶ Each fleet consisted of a schooner and as many as 16 luggers, and although they were identified as Thursday Island fleets, many were based at islands nearby such as Goods (also called Goode), Wai Weer, and Friday islands.

¹⁰ Mullins 2005, 221; David Payne, "Walter Reeks, James Clark and the Origins of the Thursday Island Pearl Sheller", *Great Circle: Journal of the Australian Association for Maritime History*, 28, No. 2, 2006, 3–25.

¹¹ Bach 1961, 106.

¹² Queensland Office of Economic and Statistical Research, "Value of Exports by Commodity, Queensland", *Historical Tables, Economy, 1860–2008 (Q150 Release)*, Queensland Treasury, 2009. <http://www.qgso.qld.gov.au/products/tables/historical-tables-economy/index.php> (accessed 2 April 2018).

¹³ John Douglas, "Report of the Government Resident at Thursday Island for 1898", *QVP*, 1, 1899, 91. The value was calculated on 16 May 2018 using the Reserve Bank of Australia's "Pre-decimal Inflation Calculator" available at <https://www.rba.gov.au/calculator/annualPreDecimal.html> assuming a value of £109,401 in 1901 (the earliest date available) calculated at 2017 (the latest date available) being \$16,459,045.76. The value of pearl shell did not include the value of pearls, considered a by-product and usually not declared. In 1898, Thursday island Government Resident, John Douglas, estimated that £20,000 to £30,000 (between \$3 million and \$4.5 million today) worth of pearls was sent by registered letter to London annually.

¹⁴ Robert Lehane, *The Pearl King*, Brisbane: Boolarong Press, 2014, 141.

¹⁵ Mullins 2005, 221–222.

¹⁶ "Pearl Fisheries Question", *Brisbane Courier*, 20 November 1896, 5. The term appears to have been first used to describe Clark's fleets in 1896 when he was lobbying the Queensland Government to amend the *Pearl-Shell and Beche-de-Mer Fishery Act* to exclude the Japanese.

In competition with the Clark Combination were other fleets, including Herbert Bowden and Patrick John Doyle's schooner *Meg Merrilies*, and the Queensland Pearl Shell Fishery Company schooner *Tarawa*. There were also individual, shore-based operators of luggers and cutters operating from Thursday Island and other Torres Strait islands including Erub (Darnley), Mer (Murray) and Masig (Yorke) islands.¹⁷ Japanese businessmen who owned and leased luggers on Thursday Island also competed with the company fleets and in 1898, because of fears that the Japanese were becoming too influential, the *Pearl-Shell and Beche-de-Mer Fishery Act* was amended to prevent leasing of vessels to "aliens", a law aimed specifically at restricting the number of Japanese in the industry. In October 1898, at least 61 Thursday Island-based pearl shell and beche-de-mer fishing boats were owned and leased by Japanese.¹⁸ Within weeks of the *Pearl-Shell and Beche-de-Mer Fishery Act* amendment becoming law in December 1898, Japanese boats changed hands.¹⁹ However, as historian Steve Mullins explains, "it was a simple matter to 'dummy', that is to make arrangements just short of leasing, but which benefited both parties just as well."²⁰ Some of the Japanese boats followed the fleets more than 400 kilometres south to Princess Charlotte Bay (Figures 2.1 and 2.2) because some floating stations bought their shell and sold them supplies at sea.²¹ The subterfuge over leasing arrangements, as well as transfers of ownership in the first two months of 1899, added to the confusion over who owned the vessels, who was aboard, and who died during the disaster.²²

¹⁷ See Regina Ganter, *The Pearl-Shellers of Torres Strait: Resource Use, Development and Decline 1860s–1960s*, Carlton, Victoria: Melbourne University Press, 1994, 25–27. Ganter describes more fully the South Sea Islander and London Missionary Society influence in the pearl shelling industry.

¹⁸ Sato Torajiro to Okuma Shigenobu, Japanese Minister for Foreign Affairs, "Petition" (to cease a moratorium on the issue of passports), 29 October 1898, National Library of Australia, MS3092, Sissons Papers, Box 41. A copy and translation by John Lamb, Canberra, was sent to Ian Townsend on 30 June 2018. The petition states, "Owned and leased boats 61 in total", but lists 52 vessels.

¹⁹ *Ibid.* The lugger *North Wales*, owned by Aplin Brown and Co., and leased to Yoshioka Tsunejiro, was sold to Hamilton Pearling Company Limited and was being sailed for delivery to Cooktown in March 1899 when it was caught by the cyclone and sank. The Japanese cutters *Sun* and *Ada*, also known to be in the cyclone, had European owners by the beginning of March. See T. M. Almond, "Report on the Marine Department for the Year 1898–1899", *QVP*, 3, 24 September 1899, 24.

²⁰ Mullins 2005, 223.

²¹ "Tarawa", *Torres Straits Pilot*, 11 March 1899, 1.

²² "The Late Hurricane. Return of the Warrego. Reports from the Boats", *Brisbane Courier*, 20 March 1899, 6. The article identifies the cutter *Yunyo*, "owner a Jap, and native in command," which survived the cyclone. The Outridge booklet used the article as a source and repeated the spelling. However, see Sato 1898 (note 18, above) where the cutter's name appears to be a misspelling or a contraction of *Jun Yoshi*, owned by Fujiwara Jin, Hamaguchi Shigematsu, and Mikami Kanzo. (N.B. It is possible

On 1 March 1899, a police census showed 1,515 people living on Thursday Island.²³ This did not include the hundreds associated with the pearling industry who lived on islands within three miles of Thursday Island,²⁴ nor did it include most of the 2,132 men on shipping articles registered at the Thursday Island shipping office who lived offshore on the company boats.²⁵ The Thursday Island Government Resident, John Douglas, estimated “possibly 5 per cent” of the men on articles lived on Thursday Island. By the time of the 1 March 1899 census, though, most of the Clark Combination had left for pearl shelling grounds in Princess Charlotte Bay.²⁶ Other fleets had also left port to follow them or to prospect in the Torres Strait. The population of Thursday Island and on boats associated with the island is, therefore, likely to have been approximately 3,647 people (the number of men on shipping articles plus the number of people recorded by the census). By 1 March 1899, as many as 1,000 were with the company fleets in and near Princess Charlotte Bay.²⁷

The cyclone’s genesis

In the days leading up to the disaster, the winds in Princess Charlotte Bay varied from south-east to north-east.²⁸ Meteorologist Herbert Whittingham, who studied the February 1899 weather charts of Clement Wragge, placed the monsoon above Cape York, except for a period around 20 February.²⁹

that Mikami, a pearl diver from Awaji Island near Wakayama in Japan, was on the *Jun Yoshi* during the cyclone. Ten months later he was to suffocate diving off Murray Island in a fate similar to the fictional Kanzo Makame from A.B. “Banjo” Paterson’s 1902 poem, “The Pearl Diver”. Paterson had visited Thursday Island in 1901, after Mikami’s death. See Death Certificate of Mikami Kanzo, 3 January 1900, QBDM, Cooktown, 1900/C3988.)

²³ “Return of Population Collected by Police as on 1st March, 1899”, in Douglas, *QVP*, 1899, 92.

²⁴ Ewen McPhee, “Archaeology of the Pearlsheiling Industry in Torres Strait”, in Ian McNiven and Michael Quinnell (eds), “Torres Strait Archaeology and Material Culture”, *Memoirs of the Queensland Museum*, 3, No. 1, Brisbane, 2004, 367.

²⁵ “Nationality of Men on Shipping Articles” in Douglas, *QVP*, 1899, 92.

²⁶ Steve Mullins, *Octopus Crowd: Maritime History and the Business of Australian Pearling in Its Schooner Age*, Tuscaloosa, Alabama: University of Alabama Press, 2019, 164. Referring to the Clark Combination, Mullins writes: “All the fleets set off south in the first week of February 1899, except *Wanetta*, which had touched bottom and had its steering gear under repair.”

²⁷ “Hurricane in the North”, *Brisbane Courier*, 10 March 1899, 5. Pearling fleet owner James Clark said: “The crews employed on these [company] vessels would number in all not far short of 1,000.”

²⁸ Simon Edwin Munro’s notes in his own hand, written 1899, supplied by Duncan McArdle, husband of Catriona Mary Munro McArdle, Munro’s granddaughter. Photocopy from Munro family papers.

²⁹ Clement Wragge, “March 4th 1899”, “March 5th 1899”, and chart “January 25, ‘99”, copies courtesy Jeffrey Callaghan, BOM, Brisbane, in 2006. They are now at NAA, BP57/40, 3/19/1; H. E. Whittingham, “The Bathurst Bay Hurricane and Associated Storm Surge”, *Australian Meteorological Magazine*, 23, 1958, 18. The monsoon trough, also known as the intertropical convergence zone, is a trough of low pressure where the south-easterly trade winds converge with winds from the north.

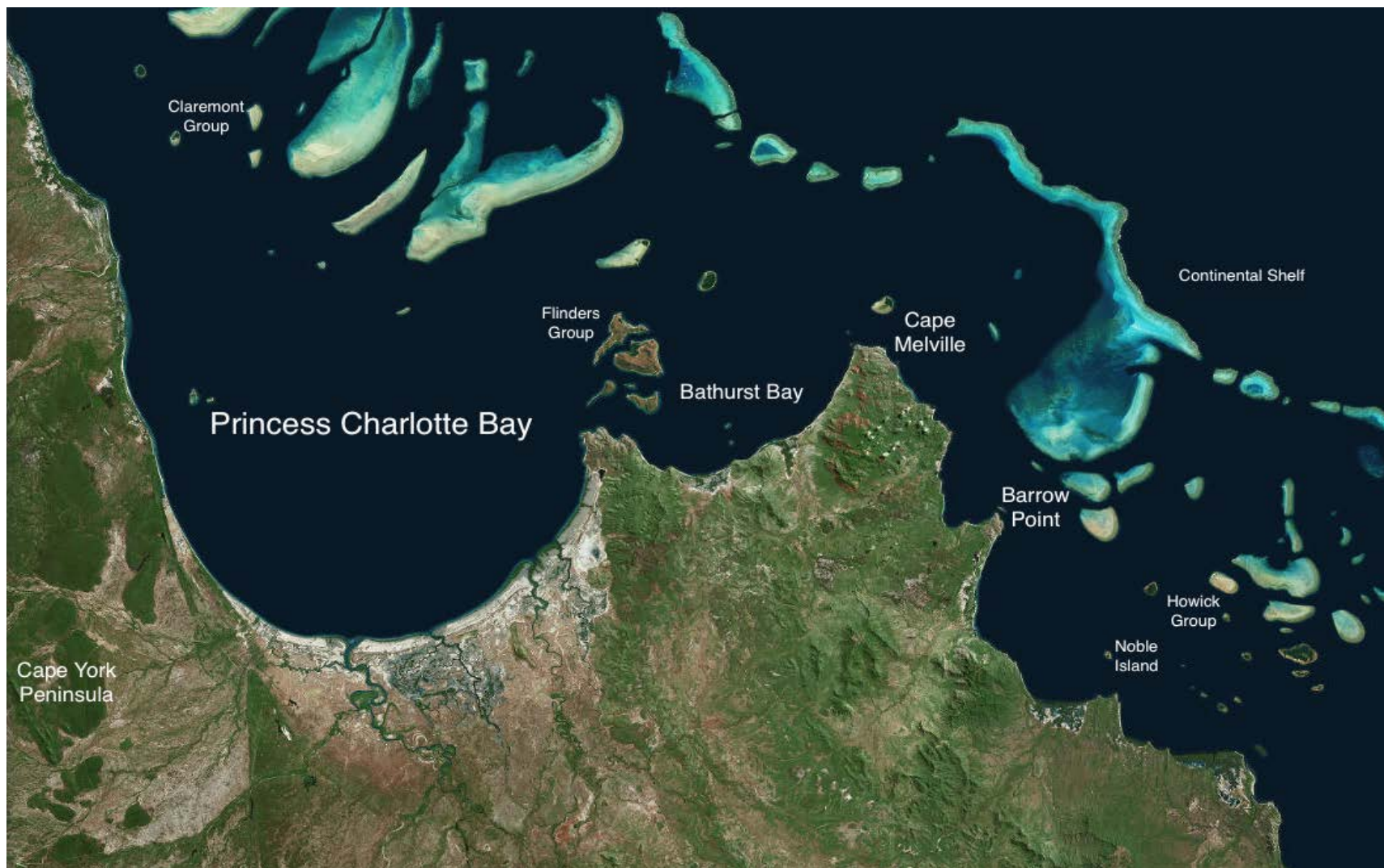


Figure 2.1 Satellite map of Princess Charlotte Bay (satellite image Geoscience Australia).

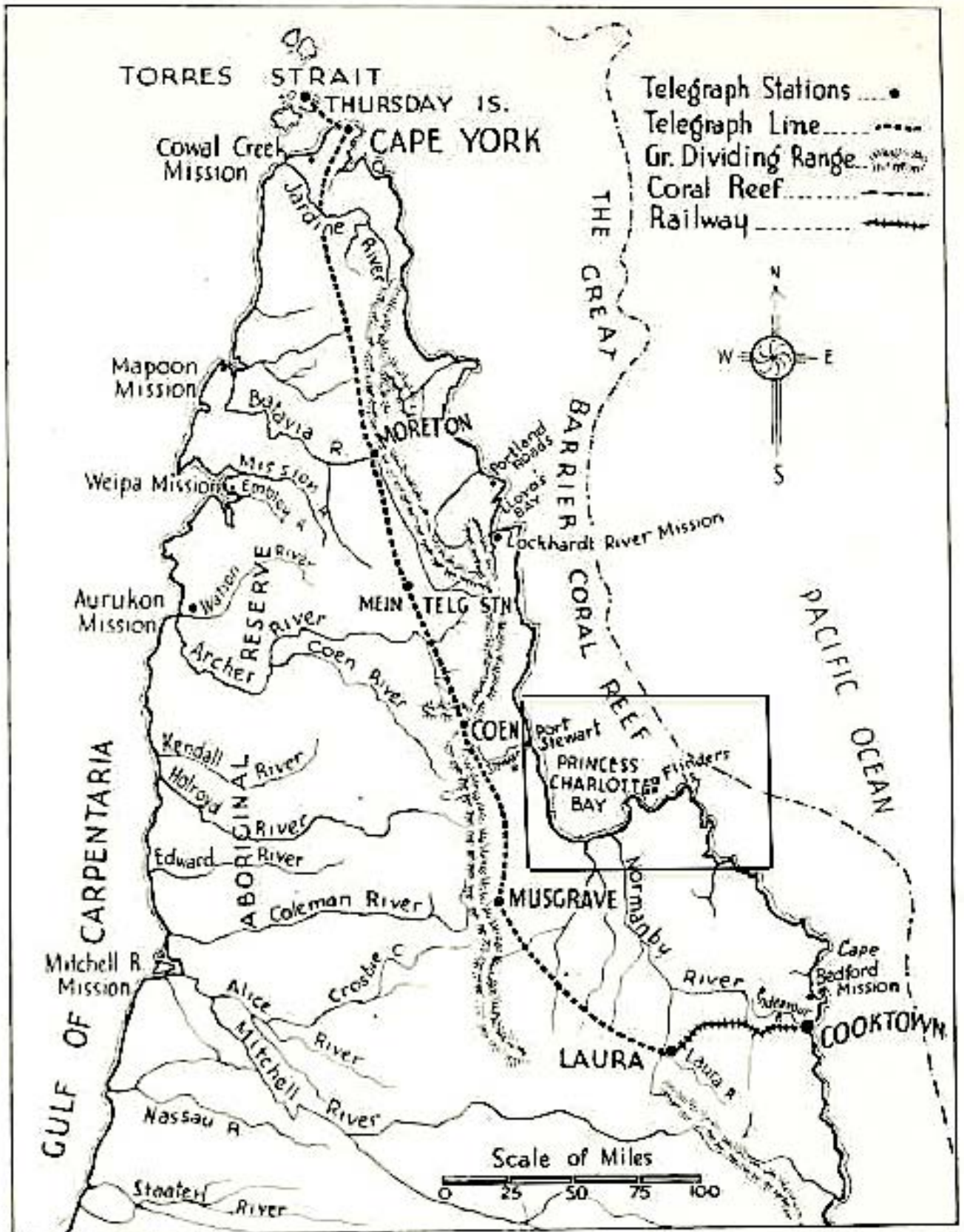


Figure 2.2 Map of Cape York, from Ursula H. McConnel, "Cape York Peninsula", *Walkabout*, 1 June 1936, 16. (Inset, see Figure 2.1.)

On the east coast of Cape York, the prevailing south-easterly winds tend to be weaker in the wet season (generally November to April) than in the dry season (May to October). In the wet season, the monsoon trough can move from the equator south into the Solomon and Coral seas. Areas of low pressure develop along the trough as warm moist air rises from the ocean to form storm clouds, and cyclones can form within these low-pressure areas, where the sea surface temperature is generally above 27 degrees Celsius. When the warm air above the sea rises, it is replaced by air drawn in from areas of higher pressure.³⁰ The earth's rotation deflects that wind and the storms in the low pressure area begin to rotate. In the Southern Hemisphere, they rotate clockwise. This is the Coriolis Effect (Figure 2.3), and its influence is negligible at the Equator, but increases towards the poles.³¹ Only one percent of tropical cyclones form within five degrees of the equator, while 74 percent of tropical cyclones in the South Pacific develop in latitudes 10 to 20 degrees south.³² Most impacts on the Queensland coast occur between 16.5 degrees south and 25.5 degrees south, reflecting a tendency for westward moving cyclones from the Coral Sea to eventually swing south.³³ Cape Melville is 14 degrees south latitude and during the short history of European occupation before 1899, cyclones were rarely recorded north of Cape Melville. That part of Cape York came to be considered too far north to be in the "cyclonic zone."³⁴ Between October 1898 and 4 March 1899, no cyclones were recorded as having crossed the coast of Cape York Peninsula.³⁵

³⁰ James P. Terry, *Tropical Cyclones Climatology and Impacts in the South Pacific*, New York: Springer, 2007, 16.

³¹ Ibid.

³² Ibid., 18.

³³ Alan Sharp, Craig Arthur, Bob Cechet, and Mark Edwards, "Tropical Cyclones", in Miriam. H. Middelmann (ed.), *Natural Hazards in Australia: Identifying Risk Analysis Requirements*, Canberra: Geoscience Australia, 2007, 43, <http://www.ga.gov.au/metadata-gateway/metadata/record/65444/> (accessed 18 March 2019).

³⁴ "Hurricanes, Queensland Coast", *Queensland Government Gazette 1897*, Brisbane: T. P. Pugh's Printing Office, 67. Hurricanes "... may strike the land at any point between latitudes 14° and 26° (that is, between Cape Melville and Wide Bay)." John Douglas to Under Secretary, Home Office, "Memo in reference to several matters connected with the Cyclone of the 4th and 5th of March last", 13 April 1899, TRE/A69, QSA, ID950347, 36. "I am inclined to think that the cyclonic zone may extend as far North as the 13th parallel of South latitude." However, Aboriginal people ashore were aware of damaging cyclones before the arrival of Europeans. Queensland Land Tribunal, "Aboriginal Land Claim to Cliff Islands National Park", in *Report of the Land Tribunal Established Under the Aboriginal Land Act 1991 to the Hon. The Minister for Natural Resources*, Brisbane: UQ Libraries, 1996, 1853.

³⁵ Jeffrey Callaghan and Peter Helman, *Severe Storms on The East Coast of Australia 1770–2008*, Southport, Gold Coast: Griffith University, Griffith Centre for Coastal Management, 2008. The National Library of Australia's Trove newspaper archive was also searched. However, see "Cyclone at Bowen", *Telegraph* (Brisbane), 31 January 1899, 5. A cyclone passed close to Bowen on 27 and 28 January.

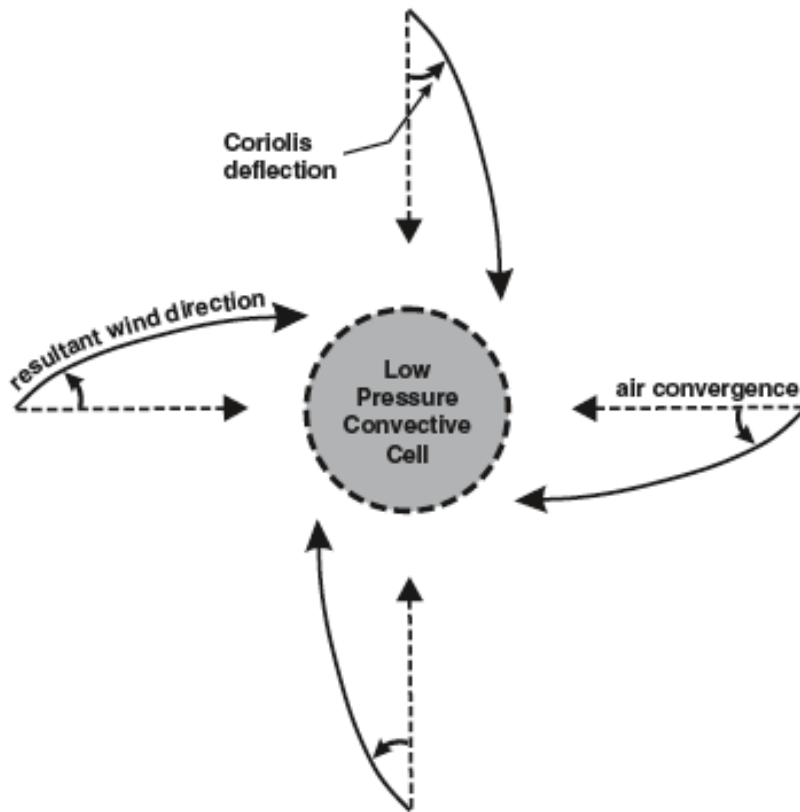


Figure 2.3 The Coriolis Effect in the Southern Hemisphere (from Terry 2007, 18).

In a weather report dated 21 February 1899, the Queensland Government meteorologist Clement Wragge wrote: “Conditions have now become decidedly suspicious between New Caledonia, the Solomons, and the Louisiades (where a tropical depression undoubtedly exists).”³⁶ Wragge could not have known where along the trough the tropical depression was centred, but he placed it about 15 degrees south latitude and 169 degrees east longitude, east of Cape Melville and south of the eastern tip of the British New Guinea mainland, in a common region of cyclogenesis in the Coral Sea.³⁷ He named it *Tirau*, “after a dusky damsel in the South Sea Islands,”³⁸ and until 28 February (four days before the cyclone was felt on the coast), *Tirau* was the only disturbance Wragge noted in the Coral Sea.³⁹

³⁶ “The Weather”, *Telegraph* (Brisbane), 22 February 1899, 6.

³⁷ “The Weather”, *Week* (Brisbane), 24 February 1899, 22.

³⁸ *Ibid.*

³⁹ “The Weather”, *Telegraph* (Brisbane) 1 March 1899, 7.

Wragge had been appointed Government Meteorologist of Queensland at the end of 1886,⁴⁰ and he set up a chain of weather stations at telegraph stations along the Queensland coast. When the undersea telegraph cable was laid, he supervised the setting up of weather stations around the Coral Sea, at Gomen and Nouméa in New Caledonia, Norfolk Island, and Port Moresby and Samarai in British New Guinea.⁴¹ Wragge had telegraph operators send him daily observations, including air pressure, temperature, humidity, and wind direction, and from these he created daily barometric charts and weather reports that were followed closely by the shipping and rural industries.⁴² (Wragge's role will be discussed more fully in Chapter Four.) Nothing in Wragge's forecasts leading up to the disaster suggested cause for alarm by the pearling fleet. As Edwin Munro aboard the schooner *Aladdin* noted: "How did Mr Wragge miss this storm?" Munro also noted that it was not until 6 March, the day after the cyclone crossed the coast, that Wragge wrote: "A new tropical disturbance (Mahina) [sic] is about 350 miles SE from Sudest."⁴³

The pearling fleets

As mentioned, the pearling fleets had considered the coast between the Torres Strait and Cape Melville to be relatively safe from cyclones, and James Clark had not insured most of his fleets.⁴⁴ Since Christmas 1898, the fleets had been anchored in the Torres Strait for the "lay up." It had become a practice in Western Australia to stop fishing from Christmas through to January or February when the crews were paid off and given time ashore. Pearling luggers built for the fleets in Western Australia were designed with a shallow draft and straight keel to "lay up" on their sides without damage in creeks at low tide.⁴⁵ The lay up on Thursday Island followed the West Australian tradition of being a time when "festivity, enjoyment, and a reckless spending of their wages took place, accompanied by a general breaking of

⁴⁰ "Scientific", *Adelaide Observer*, 18 December 1886, 44.

⁴¹ Clement L. Wragge, "Meteorological Stations in Queensland, New Guinea, New Caledonia and the South Sea Islands", *Wragge's Australasian Almanac and Weather Guide 1899*, Brisbane: Sapsford and Co., 1899, 92–97.

⁴² For a comprehensive list of cyclones and damage to the shipping and therefore trade, see Callaghan and Helman 2008.

⁴³ Munro 1899.

⁴⁴ "Mr. James Clark Interviewed", *Queenslander*, 18 March 1899, 477. Also see Lehane 2014, 193. Clark financed the rebuilding of his fleets by selling shares in his mining companies.

⁴⁵ Payne 2006, 6.

last year's resolutions."⁴⁶ In January 1899, during the lay up, the price of pearl shell in London had fallen and Clark told the manager of the *Olive* fleet, Herbert Grahame Vidgen (hereafter H. G. Vidgen), that he would prefer his fleets to fish for shell in the Torres Strait, where the shell and pearls were of a higher quality than in Princess Charlotte Bay, and would therefore fetch a better price.⁴⁷ Despite that, the Clark Combination schooner *Crest of the Wave* left Thursday Island in early February, perhaps taking advantage of northerly winds as the monsoon hovered over the Torres Strait, to prospect for pearl shell off Barrow Point, near Cape Melville, more than 400 kilometres south.⁴⁸ Behind it came the bulk of the Thursday Island fleets, more than 100 vessels including four other Clark Combination fleets, arriving in Princess Charlotte Bay, a broad north-facing bight on Cape York Peninsula bounded by Cape Melville on its eastern side and Cape York to its west (see Figures 2.1 and 2.2).⁴⁹ The relatively shallow waters were sheltered from the south-easterly trade winds and the shell beds and anchorages were well-known. The floating stations of the pearling fleets anchored near fresh water sources, and in Princess Charlotte Bay the watering places were at Port Stewart, where there was also a store,⁵⁰ on Flinders Island, and at the eastern end of Bathurst Bay near the tip of Cape Melville.⁵¹ In Bathurst Bay, the schooners anchored four to 6.5 kilometres (2.5 to four miles) offshore to avoid shallow water, but the smaller luggers anchored in rows about 2.5 kilometres (1.5 miles) off the beach.⁵² The scene is described by the Australian artist

⁴⁶ K. O. Mackenzie, "Pearl Shelling in the Torres Strait", in Chapter Five of Gilbert White, *Thirty Years in Tropical Australia*, London: Society for Promoting Christian Knowledge, 1918, 62.

⁴⁷ James Clark letter to H. G. Vidgen dated 19 January 1899, in Lehane 2014, 177.

⁴⁸ "Provincial Pickings", *Telegraph* (Brisbane), 23 February 1899, 2. The article describes a fleet owned by Clark and Smith that could only be the *Crest of the Wave* fleet. The fleet was "prospecting near Barrow Point without success" and instead of proceeding further south, as the article suggested, the fleet returned to Princess Charlotte Bay, possibly because the south-easterly winds had strengthened. Frank Illidge, "The Log of the Lally", *Northern Herald* (Cairns), 5 December 1923, 30. Illidge interviewed Edward Pitt, who was fishing in the area before the cyclone. Pitt had told him that there "had been a new find of pearl shell outside Barron [sic] Point, and all the boats had congregated to fish there."

⁴⁹ Of the six Clark Combination fleets, only the *Wanetta* fleet escaped the cyclone because it remained in the Torres Strait.

⁵⁰ Basalt (Clement Wragge), "Through York Peninsula", *Queenslander*, 1896, 1176. Wragge described Port Stewart, a small European settlement on the western side of Princess Charlotte Bay at the mouth of the Stewart River and the landing point for the Coen goldfields.

⁵¹ Charles B. Yule and G. A. Browning, *Great Britain, Hydrographic Department, Australia Directory. Compiled Chiefly from Various Surveys Made by Order of the Lords Commissioners of the Admiralty Volume ii*, 5th edition, London: Hydrographic Office, Admiralty, 1898, 381–382. The Admiralty advised that there was "permanent water at the cape [Melville], but the vessel has to lie some distance off shore, and the natives are unfriendly, so that it is better to water at Flinders group."

⁵² Anonymous 1899, 31.

Tom Roberts, who was with the fleet of George Smith's floating station *Sketty Belle* when it anchored off the watering place in Bathurst Bay seven years earlier, in 1892.⁵³

Near the station is water trickling between the granite boulders in a narrow shaded gully, and all day long the string of men — Port Darwins, Binghis, Japs, Manila, and Rotamah [sic] men — are kept going, laughing and calling as they follow each other with the water-bags, or standing waist deep in the warm sea lift them from their shoulders into the boats. ... Early in the morning we are at anchor in the main body of the fleet, a long row of luggers, ketches, and cutters, running up to 15 or 16 tons.⁵⁴

The people ashore

The history of contact between the fishing industry, the Aboriginal people ashore, and the Native Police shows not only the context for the social impacts of the disaster, but, as will be demonstrated, answers scientific questions such as the location and height of the storm tide. As discussed in Chapter One, climate scientists have increasingly sought quantitative data from newspapers. That data is not neutral, but is contingent on memory and can be influenced by social narratives.⁵⁵ It cannot be assessed without an understanding of the social contexts under which it was recorded.

The Native Police was a para-military force originally formed by the NSW Government in 1848 to protect the settlers who were colonising Aboriginal land from attacks by the Aboriginal people who lived there.⁵⁶ When the Queensland colony separated from NSW in 1859, the Queensland Government retained the Native Police force which patrolled the frontier as white settlers moved further into

⁵³ *The Register of Australian and New Zealand Shipping 1902–1903*, Melbourne, Victoria: Marine Underwriters and Salvage Association of Victoria, 1902, 122. The *Sketty Belle* and the *Crest of the Wave*, both part of the Clark Combination at different times, are sometimes confused. The *Sketty Belle* was a 184 ton brigantine built in Canada in 1866. George Smith, the majority shareholder, later replaced it with the 95 ton schooner *Crest of the Wave*. The *Crest of the Wave* fleet included luggers from the old *Sketty Belle* fleet. After the cyclone, Smith renamed *Crest of the Wave* the *Sketty Belle*.

⁵⁴ Tom Roberts, "Going North", *Argus* (Melbourne), 10 December 1892, 4.

⁵⁵ Linda Hutcheon, *A Poetics of Postmodernism: History, Theory, Fiction*, New York: Routledge, 1988, 122.

⁵⁶ Jonathan Richards, *A Question of Necessity: The Native Police in Queensland*, PhD thesis, School of Arts, Media and Culture, Griffith University, Brisbane, 2005, 1–2.

Aboriginal lands.⁵⁷ In 1897, after Queensland Commissioner of Police, William Parry-Okeden, presented a report to Parliament suggesting ways to establish “friendly relations” with Aboriginal people, the Native Police force was reorganised.⁵⁸ The *Aboriginals Protection and Prevention of the Sale of Opium Act 1897* changed the role of the Native Police from one of punishing Aboriginal people, to one of protecting them from abuse, particularly by the fishing industry.⁵⁹ In 1898, ethnologist and physician Dr Walter Roth was appointed Northern Protector for Aboriginals with responsibility for both the Native Police and the welfare of Aboriginal people.⁶⁰ Roth was based in Cooktown and in November 1898, three months before the pearling disaster, he made a tour of the Princess Charlotte Bay hinterland, meeting 416 Aboriginal people and estimating the population of the region to be greater than 1,000.⁶¹ His route took him from the Normanby River “along the head-water of Birthday Creek to Bowen Bay, and so to the Jeannie and Starcke (rivers),” passing through the country of the people that Roth identified as Kokoolkoolo, Kokolamalama, Kokowara, and Kokoyimidir, as well as smaller groups of people on the coast, which included the Barrow Point people (Figure 2.4).

⁵⁷ Jonathan Richards, *The Secret War*, St Lucia: UQP, 2008, 5.

⁵⁸ William E. Parry-Okeden, “Report on the North Queensland Aborigines and the Native Police”, *QVP*, 1897, 8.

⁵⁹ Regina Ganter and Ros Kidd, “The Powers of Protectors: Conflicts Surrounding Queensland's 1897 Aboriginal Legislation”, *Australian Historical Studies*, 25, No. 101, 1993, 539.

⁶⁰ Kate Kahn, “The Man Who Collected Everything: W. E. Roth”, in Nicolas Peterson, Lindy Allen, and Louise Hamb (eds), *The Makers and Making of Indigenous Australian Museum Collections*, Carlton, Victoria: Melbourne University Press, 2008, 164.

⁶¹ Walter Roth, “A Report to the Commissioner of Police on the Aboriginals Occupying the 'Hinterland' of Princess Charlotte Bay Together with a Preface Containing Suggestions for Their Better Protection and Improvement”, 30 December 1898, A/19899, QSA, ID1154345, ii.

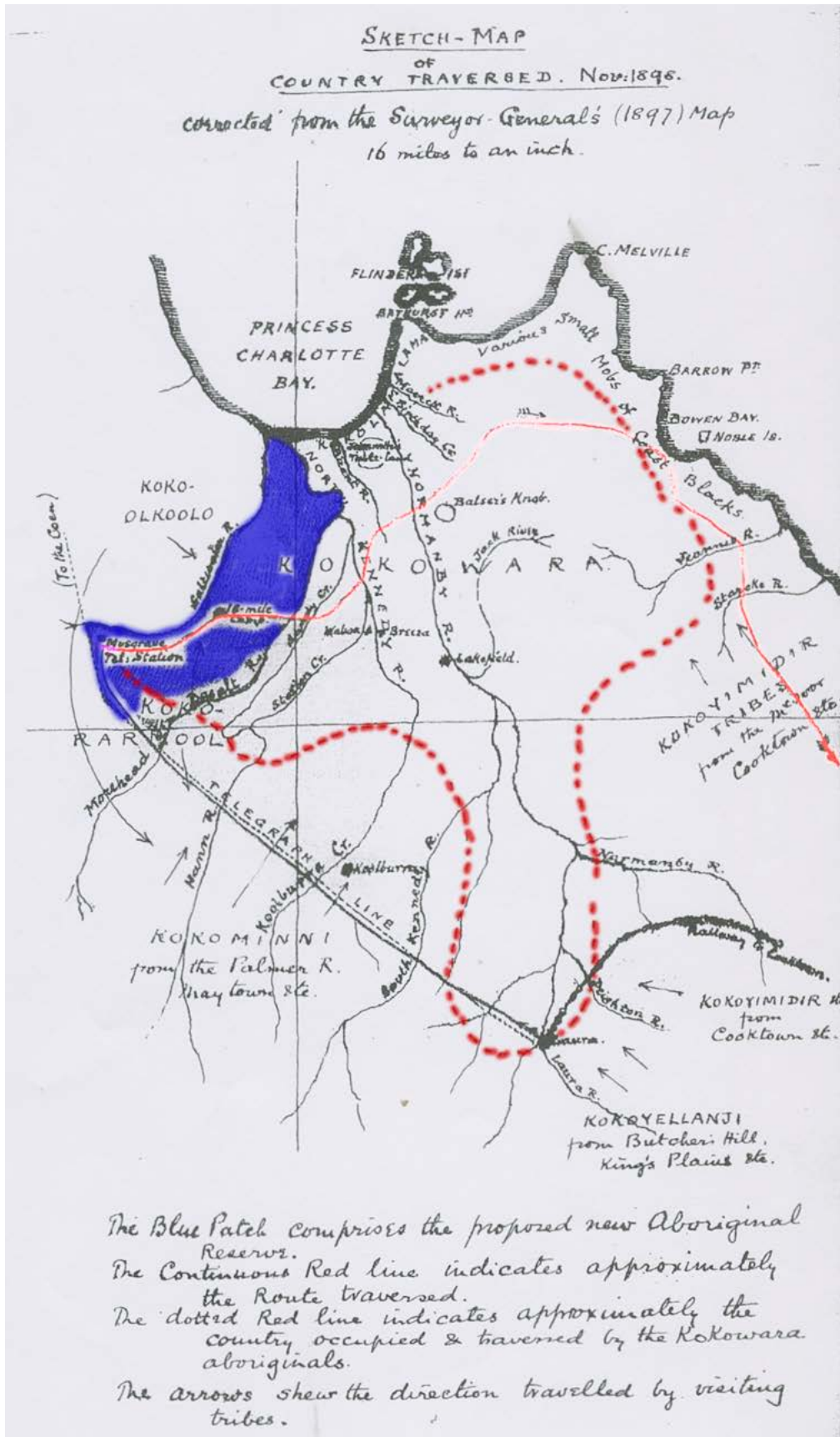


Figure 2.4 Roth's "Sketch Map of Country Traversed" (colour enhanced to show the original details) from "A Report to the Commissioner of Police", 1898, i. The continuous red line marks Roth's route, and the blue area is a proposed Aboriginal reserve.

In 1974, in his book *Aboriginal Tribes of Australia*, the anthropologist Norman Tindale also described the people of the Princess Charlotte Bay region,⁶² but the nomenclature has been questioned by the people whose country is named.⁶³ Instead, anthropologist Bruce Rigsby has identified the language groups and suggests a nuanced approach to describing the people who lived in that region.⁶⁴ This is also the approach of anthropologist Peter Sutton, who identifies three main language groups of the Cape Melville region: The Princess Charlotte Bay people, the Flinders Islands/ Bathurst Bay/Barrow Point people, and the Guugu-Yimidhirr-speaking people south-east of Princess Charlotte Bay. The names of these language groups vary depending on which language describes them. In Guugu-Yimidhirr, for example, people from Flinders Islands, Cape Melville, and Barrow Point are Bama Yiidhuwarra. Sutton explains that language areas are not areas to which the owners of the languages were physically restricted, but represented the collective countries of the clans owning each particular language.⁶⁵ “Clans bore names that were widely recognized, but each clan’s name could be given in any of half a dozen or more languages of the region.”⁶⁶ In other words, the temptation to categorise and map areas by name does not reflect the mosaic of languages and wide-ranging groups living within those areas. However, because this thesis looks at the impact of the cyclone on geographical areas, as well as reflecting descriptions in historical documents, I will refer to geographical areas as described in 1899 to identify the people who lived there, recognising that the people themselves had a much more nuanced understanding of their cultural and country boundaries.

The region has been the home of Aboriginal people for thousands of years, and contact with Europeans in the early part of the 19th century began violently.⁶⁷ With the increased effort to fish surrounding waters for pearl shell and beche-de-mer in

⁶² Norman Tindale, *Aboriginal Tribes of Australia: Their Terrain, Environmental Controls, Distribution, Limits, and Proper Names*, Berkeley: University of California Press, 1974.

⁶³ Queensland Land Tribunal, 1996, 41.

⁶⁴ Bruce Rigsby, “The Languages of the Princess Charlotte Bay Region”, in Tom Dutton, Malcolm Ross and Darrell Tryon (eds), *The Language Game: Papers in Memory of Donald C. Laycock*, Canberra: Pacific Linguistics, 1992, 353–360.

⁶⁵ Peter Sutton, “The Flinders Islands and Cape Melville People in History”, in Jean-Christophe Verstraete and Diane Hafner (eds), *Land and Language in Cape York Peninsula and the Gulf Country*, Amsterdam/Philadelphia: John Benjamins Publishing Company, 2016, 96.

⁶⁶ *Ibid.*, 98

⁶⁷ *Ibid.*, 87, 89.

the second half of the 19th century, tensions increased as more fishermen came ashore for firewood and water, to recruit local men as labour,⁶⁸ and to hunt.⁶⁹ There were frequent reports of fishermen sexually abusing women.⁷⁰ The people living in the vicinity of Barrow Point, in particular, became the target of Native Police reprisals after a string of attacks on the fishing industry in the late 19th century. In September 1881, a group of Guugu-Yimidhirr men found a beche-de-mer fishing station on Lizard Island, forbidden under their law.⁷¹ They killed a Chinese employee and Mary Watson, her baby, and another Chinese man fled in an iron tank. The three later died of thirst on Howick No. 5 Island (now called Watson Island).⁷² In October 1881, a few weeks after the Lizard Island incident, a group of 15 Aboriginal men attacked a beche-de-mer station at Barrow Island, off Barrow Point, a place sacred to the Barrow Point people. They killed one of the fishermen, while six or seven attackers were reported killed by two fishermen who later escaped ashore and then overland to Cooktown.⁷³ In an expedition to punish the attackers, Inspector Hervey Fitzgerald, the officer in command of Native Police in Cooktown, led a party to Cape Melville and afterwards reported: "All the tribes implicated in the recent murder [referring to Mary Watson] have been punished; also those connected with Barrow Point."⁷⁴ A Cooktown correspondent to the Brisbane *Telegraph* reported that Mary Watson's

⁶⁸ "Deputation to Home Secretary by British Shellers Protesting Aliens Employing Aborigines in Industry", 14 July 1899, COL/142, ID17980. During his visit to the Torres Strait in July 1899, British pearl shellers presented a petition to Queensland Home Secretary Justin Foxton, protesting aliens employing Aboriginal people in the industry, claiming several were not paid after the recent cyclone. Foxton was told 300 Aboriginal people were employed in the industry.

⁶⁹ Roberts, "Going North", 10 December 1892, 4. Roberts travelled with George Smith's pearling schooner *Sketty Belle* in 1892, and describes being anchored in Bathurst Bay on a Saturday and by 5 p.m. "most of the boats are away towards the land with their guns, to get their Sunday ashore."

⁷⁰ Walter Roth letter to Commissioner of Police William Parry-Okeden, 23 March 1899, Microfilm Z1609, QSA ID17980. Roth writes: "I feel more and more convinced, as time goes on, that trouble will most certainly sooner or later arise amongst these coastal tribes, consequent on the depredations and outrages inflicted upon them by the beche-de-mer men, pearlers etc." Roth, "A Report to the Commissioner of Police", 1898, iv and 19. See also Ganter 1994, 45.

⁷¹ Willie Gordon, *Guurrbi: My Family and Other Stories*, Cooktown: Guurrbi Tours, 2012, 30.

⁷² Suzanne Falkiner and Alan Oldfield, *Lizard Island: The Journey of Mary Watson*, Sydney: Allen and Unwin, 2000.

⁷³ "The Barrow Island Murders", *Queenslander*, 19 November 1881, 659; "Murderous Attack by Blacks", *Capricornian*, 12 November 1881, 15. Around the same time, Captain John Frederick Miller's beche-de-mer station on Flinders Island in Bathurst Bay was attacked, but the attackers were repulsed. On 9 November, two fishermen men were found dead on Cairncross Island near the tip of Cape York, both speared a month earlier, and a station on Night Island in Princess Charlotte Bay was reported to have been robbed of firearms about the same time. The number of incidents so close together led to speculation that the attacks were being co-ordinated, which may explain the widespread nature of the Native Police reprisals. See "The Lizard Island Outrage." *Queenslander*, 12 November 1881, 2. "The raid seems to have been deliberately planned, with the intention of surprising all the fishing camps off the coast, killing the people and destroying the property found there."

⁷⁴ "Notices to Correspondents", *Queenslander*, 17 December 1881, 785.

husband accompanied the Native Police on their raid, when they “scoured the coast beyond Barron [sic] Point, and fell in with the tribe of blacks who had, in the first instance, escaped.”⁷⁵

Ethnologist and linguist John Haviland, who has studied the Barrow Point people, was told that following the 1881 Native Police reprisals, the people of Barrow Point retreated to a few camps near Ninian Bay.⁷⁶ The main focus of the reprisal was a camp at the mouth of Wakooka Creek, the first camp of the Barrow Point people that a Native Police patrol by horseback or boat from the south would have encountered. Haviland also described stockmen remembering “having once turned up a mass grave with many skulls, testifying to some early massacre” at the mouth of Wakooka Creek,⁷⁷ and also that “survivors of a police rampage on a salt pan inland from the mouth of Wakooka Creek came upon one of the native troopers abusing a local woman and killed him on the spot.”⁷⁸ In May 1893, two Japanese beche-de-mer fishermen were killed on their fishing boat, *Miranda*, at Cape Melville.⁷⁹ The patrol sent north from the Native Police camp at Mclvor (between Cooktown and Barrow Point) “discovered the tribe of blacks that committed the murder and punished them accordingly.”⁸⁰

After the Native Police’s role ostensibly changed from one of punishment to protection in 1897, the Barrow Point people remained wary of the Native Police and the fishermen who continued to enter their country.⁸¹ On or about 17 February 1899, about two weeks before the disaster, two crew members of a fishing boat came ashore near Barrow Point and were speared.⁸² One of the men, Jamie or Jimmy

⁷⁵ “The Outrage at Lizard Island”, *Telegraph* (Brisbane), 8 December 1881, 2.

⁷⁶ John Haviland and Roger Hart, *Old Man Fog and the Last Aborigines of Barrow Point*, Bathurst: Crawford House Press, 1999, 35.

⁷⁷ *Ibid.*, 140.

⁷⁸ *Ibid.*, 36.

⁷⁹ “Cooktown”, *Week* (Brisbane), 9 June 1893, 22.

⁸⁰ D. C. S. Sissons, “The Japanese In the Australian Pearling Industry”, *Queensland Heritage*, 3, No. 10, 1979, 20. Sissons cites a letter from Sub-Inspector of Police at the Mclvor Native Police Camp to Inspector of Police, Cooktown, 7 October 1893, filed with letters from the Honorary Japanese Consul, Melbourne to Chief Secretary of the Japanese Government, 27 November 1893.

⁸¹ Walter Roth to Under Secretary Home Office, “Report Re Distribution of Gifts to Coastal Aborigines”, 9 April 1899, HOM/A23/99/5252, QSA, ID847561, 6–7. When Roth visited the people of Bathurst Head in 1899 they “recognised the troopers by their caps, and all cleared away to the hills
...”

⁸² Cooktown Hospital, Admission Registers 27/8/1897 – 7/5/1899, “Discharge record of Jimmy Thomas”, 17 March 1899, HOS13/23, QSA, ID7363.

Thomas, survived.⁸³ He walked 80 kilometres south taking seven days to reach the mining town of Munburra, from where he was taken to the Eight Mile Native Police Camp, arriving on 28 February and being admitted to the Cooktown hospital on 1 March.⁸⁴ He was treated by Dr Helmuth Kortum, who described him as 45 years old, born in Bombay, India, and living on Thursday Island:

This patient was out in a little boat fishing about 100 miles north of Cooktown, boat lost, and patient was cast ashore with another man a country man, after been two days ashore were speared by Blacks. This man got a spear through the right arm above the elbow, and was afterward lost in the bush for 7 days without food. There is also a wound on the right side of chest, to all appearances caused by the same spear after penetrating through the arm.⁸⁵

The Native Police officer responsible for the area of coast north from Cooktown to the tip of Cape Melville (Figure 2.5), Constable John Martin Kenny of the Eight Mile Police Station near Cooktown,⁸⁶ took a party of four troopers and ten horses north to investigate.⁸⁷ Kenny described the two men as “kanakas” who had landed a dinghy near Barrow Point and who were “supposed to have deserted from the pearl fleet.”⁸⁸ The George Smith and James Clark-owned schooner *Crest of the Wave* had been fishing off Barrow Point in early February,⁸⁹ and although it had a fleet of 13 luggers, it is reported to have arrived in Cooktown with 12.⁹⁰ It may have been that the missing lugger had remained behind, waiting for the men to return from shore or to search for the dinghy.

⁸³ Ibid. The name is spelt both Jimmy and Jamie in the hospital records.

⁸⁴ A. R. Vidgen, “Northern Hurricanes”, *Telegraph* (Brisbane), 17 April 1899, 5.

⁸⁵ Cooktown Hospital Admission Registers, 17 March 1899. Thomas was discharged 17 March 1899.

⁸⁶ Police Staff File, John Martin Kenny, A/38868, QSA, ID563796. Kenny was born near Grafton in NSW in 1872 and was sworn into the Queensland Police Force on Christmas Eve 1896. He served with the Native Police at Cooktown and Highbury before becoming the constable in charge of the Eight Mile Native Police Station in April 1898. He was 27 when the cyclone struck in 1899 and had a sister and blind father living with him at the Eight Mile at the time.

⁸⁷ Vidgen, “Northern Hurricanes”, 5.

⁸⁸ Ibid. Kenny had left for the scene on 28 February and Kortum wrote his report on 1 March.

⁸⁹ “Queensland”, *Brisbane Courier*, 13 February 1899, 5; “Provincial Pickings”, *Telegraph* (Brisbane), 23 February 1899, 2. The fleet was described as owned by Clark and Smith, and the *Crest of the Wave* fleet is the only one that fits this description.

⁹⁰ *NQR* (Townsville), 20 February 1899, 6. This article quotes the *Cooktown Independent* newspaper, no copies of which are known to exist for this period.

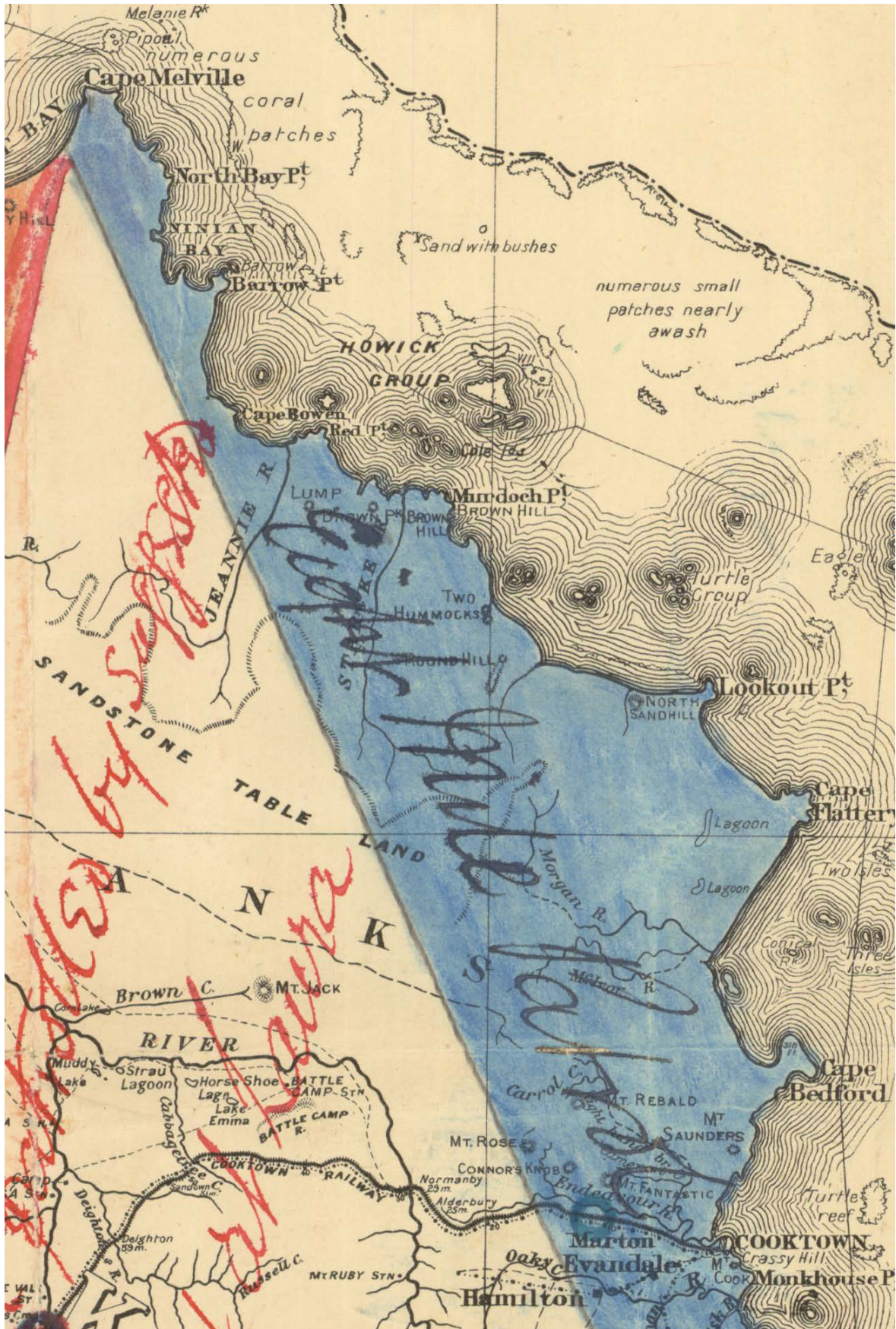


Figure 2.5 Map showing Constable John Martin Kenny's patrol area from Cooktown to Bathurst Bay (from "Native Police Camps", Laura Police Station files 1900, Administration files, A/41364, QSA, ID290072).

It is also possible the two men were from one of several small vessels fishing for beche-de-mer in the area.⁹¹ Four months earlier, in October 1898, Roth reported that Kenny had found a man nicknamed “Frenchy” camped on the police reserve at Munburra, “with four gins and three black boys.” Roth, in a handwritten note in the margin of his report, said: “This Frenchy lately took 3 or 4 blacks in his boat without permission from the Starcke River to one of the outlying islands. He is a bad character.”⁹² Frenchy was a miner named John Duval, who had recently bought a vessel named the *Lotus*.⁹³ On 4 January 1899, he reported the vessel missing with an Aboriginal crew who might have “run away with the vessel, which was well-provisioned.”⁹⁴ This was not uncommon. Queensland Police Commissioner, William Parry-Okeden, described the practice of fishermen owning small vessels employing “two congenial ruffians as a mate and a cook” and illegally recruiting local Aboriginal men to collect beche-de-mer, mistreating the men who then throw the “ruffians” overboard and run away.⁹⁵ Whether this was the fate of Thomas and his countryman remains unknown because Kenny made no further investigation after the cyclone, which struck just as he arrived south of Barrow Point. When he returned to Cooktown, he was sent back to Bathurst Bay to help search for survivors and to bury the dead. During that time, Thomas was released from hospital and disappeared. With no evidence and no complainant, the case appears to have been forgotten.⁹⁶

Constable Kenny’s unofficial report

One of the most significant aspects of the pearling disaster was the storm tide reported by Kenny when he was searching for the perpetrators of the spearing of Thomas. In his 1958 paper on the cyclone, meteorologist Herbert Whittingham uses the Outridge booklet as his source and significantly places Kenny’s report within

⁹¹ Tom Roberts, “Going North”, *Argus* (Melbourne), 3 December 1892, 13. Roberts writes: “There is a good market at Cooktown, where the beche will fetch from perhaps £20 to over £100 per ton, according to the quality, the large prickly red being the least valued. Most of the fish goes to China ...”

⁹² Roth, “A Report to the Commissioner of Police”, 1898, iii.

⁹³ “Shipping”, *Northern Miner* (Charters Towers), 21 December 1898, 7; “Provincial Pickings”, *Telegraph* (Brisbane), 14 January 1899, 5.

⁹⁴ “The Sugar Yield”, *NQR* (Townsville), 30 January 1899, 10.

⁹⁵ Parry-Okeden, “Report on the North Queensland Aborigines and the Native Police”, 1897, 8.

⁹⁶ Thomas was discharged from hospital on 17 March, the same day Kenny returned to Cape Melville to search for survivors. There is no evidence that an official report on the spearing was written.

quotation marks, which makes it appear that it is a report written by Kenny.⁹⁷ The Outridge booklet had also given the impression that the words were Kenny's when it said, "Constable J. M. Kenny, constable in charge of the Eightmile [sic] Police Station, Cooktown, relates the following: ..." placing a quotation mark at the end of the report (although there is no quotation mark at the beginning).⁹⁸ That letter quoted in Outridge and repeated by Whittingham appears to be, apart from some typographical errors, a copy of a letter taken from the *Brisbane Courier* dated 18 April 1899.⁹⁹ That *Brisbane Courier* report, however, is a copy of a newspaper article published the day before, 17 April 1899, in the *Brisbane Telegraph*, an evening newspaper. That article makes it clear that Kenny did not write the words, but that it is a copy of a private letter sent by A. R. Vidgen to an unnamed friend in Brisbane, who took it to the *Telegraph* offices. The letter, quoted verbatim, begins: "The following is an extract from a private letter sent by Mr. A. R. Vidgen to a friend in Brisbane : — Mr. Vidgen says Constable J. M. Kenny, constable in charge of the 8-Mile police station, Cooktown, relates the following: ..." ¹⁰⁰ The *Telegraph* reproduced Vidgen's letter and, although it is a secondary source, the methodology shows the source is credible.

A. R. Vidgen was the Cooktown store manager of the trading company Burns Philp who went to the scene of the disaster on the *Warrego* to look for his brother, H. G. Vidgen, the manager of the *Olive* pearling fleet.¹⁰¹ The letter was sent by steamer and handed to the *Telegraph* newspaper, avoiding the risk of transmission errors of the telegraph (as described in Chapter One). A. R. Vidgen is considered a reliable witness, who was at the scene shortly after the disaster and who had two opportunities to speak to Kenny in Cooktown. Because A. R. Vidgen was reporting what Kenny said, the letter is a secondary source for Kenny's observations, but a chain of custody can be established between Kenny the police officer, A. R. Vidgen the store manager, and the newspaper's copy of the letter. Kenny and A. R. Vidgen were both witnesses in positions to tell the truth and report accurately, and they are

⁹⁷ Whittingham 1958, 22.

⁹⁸ Anonymous 1899, 18–19.

⁹⁹ "The Late Northern Hurricane", *Brisbane Courier*, 18 April 1899, 9.

¹⁰⁰ Vidgen, "Northern Hurricanes", 5.

¹⁰¹ Graham Taylor, a relative by marriage to A. R. Vidgen, in an email to Ian Townsend, 13 June 2018.

both identified.¹⁰² Although Kenny's report to A. R. Vidgen can be considered credible, his observations relating to the storm tide need corroborating. As mentioned, Kenny's campsite is significant because it is the basis for a world record.¹⁰³ Previous researchers have placed the campsite in Ninian Bay west of Barrow Point,¹⁰⁴ at Barrow Point,¹⁰⁵ or on the beach just south of Barrow Point in Bowen Bay.¹⁰⁶ However, its precise location has, until now, been unknown, and details such as the height of the ridge on which Kenny camped and its distance from the beach have not been corroborated and have therefore been the subject of speculation.¹⁰⁷ However, after examining all available data, the social contexts in which the data were recorded, and applying the methodology developed in Chapter One, this thesis identifies the location of Kenny's campsite.

A. R. Vidgen's letter describes Kenny reaching Barrow Point before making camp at 6 p.m.,¹⁰⁸ and Whittingham interpreted this literally as the Barrow Point headland.¹⁰⁹ However, when the Native Police referred to Barrow Point, they were describing the country of the Barrow Point people, not the rocky headland. Kenny's superior, Walter Roth, described Barrow Point as a "tract of country" which the Barrow Point people traversed.¹¹⁰ The distinction between Barrow Point, the geological feature, and Barrow Point, the land occupied by the Barrow Point people, is an example of an

¹⁰² The interview probably occurred after Kenny's second trip to the scene, when he returned to Cooktown on the cutter *Mystery* on 9 April. Vidgen's letter was published 17 April.

¹⁰³ Jeffrey Callaghan, "Our Interpretation", BOM, 2006. (Typed notes courtesy of Jeffrey Callaghan.) Callaghan writes: "We need to understand what caused such a very large storm surge as there [are] other parts of the Queensland coast with similar complicated bathymetry."

¹⁰⁴ Jonathan Nott and Matthew Hayne, "How High Was the Storm Surge from Tropical Cyclone Mahina? North Queensland, 1899", *Australian Journal of Emergency Management*, 15, No. 1, Autumn 2000. Nott and Hayne searched unsuccessfully for evidence of a 13-metre storm surge at Ninian Bay and Bathurst Bay.

¹⁰⁵ Whittingham 1958, 24.

¹⁰⁶ Jonathan Nott, Camilla Green, Ian Townsend and Jeffrey Callaghan, "The World Record Storm Surge and the Most Intense Southern Hemisphere Tropical Cyclone: New Evidence and Modeling", *Bulletin of the American Meteorological Society*, 95, No. 5, May 2014, 759.

¹⁰⁷ *Ibid*; Nott and Hayne 2000, 12.

¹⁰⁸ Vidgen, "Northern Hurricanes", 5. "Kenny reached Barron [sic] Point on Saturday, March 4, 1899, and camped about 6 p.m."

¹⁰⁹ Whittingham 1958, 24.

¹¹⁰ Walter Roth, "North Queensland Ethnography Bulletin No. 18, Social and Individual Nomenclature", *Records of the Australian Museum*, 8, No. 1, 15 November 1910, 79. "Each tract of country is specialised by the people traversing, occupying, or hunting over it, and hence, as often happens, may be called by different names. Barrow Point, for instance, is known to the local blacks as E-polin [Iipwulin]..." Roth, "Report Re Distribution of Gifts to Coastal Aboriginals", 1899, 1. Roth describes being "anxious to reach the main camp of the Barrow Point tribe as soon as possible" and landed at a point on the coast 15 kilometres south of the Barrow Point headland, where he came upon "a few Barrow Point blacks, the majority of the mob being away at Cape Melville."

error of translation between the past and present, as described in Chapter One. The country of the Barrow Point people extended south from the headland for about 14 kilometres to Wakooka Creek, and north about the same distance to Rocky Point.¹¹¹ Kenny was in charge of the Eight Mile Native Police station west of Cooktown. His patrol area was defined by the country of the Aboriginal people for whom he was responsible. On the Native Police patrol map of 1900 (Figure 2.5), the Barrow Point headland is the next natural feature north of Cape Bowen, and a European convention was to name an area or a people after a geographical feature. Kenny could reasonably have considered a 28 kilometre length of coastline, north and south of the Barrow Point headland, as his destination.

Using the methodology, Kenny's route can be reconstructed. According to A. R. Vidgen's letter, Kenny had left the mining settlement of Munburra and then "struck the coast."¹¹² The coast closest to Munburra, at the mouth of the Starcke River, is blocked by a large area of mangroves and is impassable by horseback, as are the mangrove and mudflat estuaries of the Jeannie and Howick rivers further north. In emphasising the "beach", Kenny was describing one of only two possible routes from Munburra to Barrow Point: An inland track via James Gap west of the Altanmoui Range, which would have also taken him outside his patrol territory (Figures 2.5 and 2.6), and a route east of the Altanmoui Range that runs along the beach and joins an Aboriginal road that runs from Cape Bowen through the country of the Barrow Point people to Ninian Bay. This was a road that Roth described on his tour of the Princess Charlotte Bay hinterland in 1898 when he arrived at the mouth of Wakooka Creek "in the neighbourhood of Barrow Point"¹¹³ and met 30 people "the main mob having left for [Cape] Melville."¹¹⁴ Roth was accompanied on that trip by a Native Police tracker named Euro "a Normanby River boy" who knew the area and the languages "between Cape Melville and Bathurst Head, and on the Flinders."¹¹⁵ Euro

¹¹¹ Haviland and Hart 1999, 49.

¹¹² Vidgen, "Northern Hurricanes", 5.

¹¹³ Roth, "A Report to the Commissioner of Police", 1898, 1. Roth's "Sketch map of Country traversed" shows that he touched the coast at the mouth of Wakooka Creek, south of Barrow Point.

¹¹⁴ Roth, "A Report to the Commissioner of Police", 1898, ii.

¹¹⁵ Bruce Rigsby email to Ian Townsend 12 October 2007. In a transcribed copy of Roth's "Report re Distribution of Gifts to Coastal Aboriginals" 1899, annotated by anthropologist Bruce Rigsby, the tracker "Euro" is described as a Lamalama man of the *Mbarimakorrkoma* clan. Roth identified him as "Koko Warra", which, as Rigsby says, is "not troubling" given "the intermarriage of members of clans in that region."

showed Roth the "northern 'road' along the coast to Barrow Point" which was "very well marked indeed."¹¹⁶ This northern road, which Roth described as being "like a cattle track", was used by local people to travel between Cape Bowen and Ninian Bay, linking two of the main camps of the Barrow Point people, Iwalin and Ipwulin west of Barrow Point,¹¹⁷ with a large camp near the mouth of Wakooka Creek.¹¹⁸ The road begins four kilometres north of Cape Bowen where it leaves the beach, crosses Wakooka Creek, and continues inland to avoid the deep creek estuaries and mangroves on the coast north of Wakooka Creek (Figures 2.6 and 2.7).¹¹⁹ Kenny had told Vidgen that he took the beach route from Munburra, which required him to ride about 50 kilometres along the road north-west from Munburra, and then strike for the coast to reach the beach five kilometres south of Cape Bowen. This is the only part of the coast where Kenny could ride along the beach for any distance. It was the only route north that was inside Kenny's patrol territory, and it was a route Kenny took at other times.¹²⁰ It also allowed him to search the beach for the dinghy in which Thomas and his mate came ashore in February, and it appears to be the quicker route by horseback to Barrow Point (Figure 2.7). Both routes, however, lead to the mouth of Wakooka Creek in Bowen Bay.

¹¹⁶ Roth, "A Report to the Commissioner of Police", 1898, 22; Herbert M. Hale and Norman B. Tindale, "Aborigines of Princess Charlotte Bay, North Queensland, Part 1", *Records of the South Australian Museum*, 5, No. 1, 1933, 69. Hale and Tindale describe the "Mutumui" people, who appear to have occupied the region south of the Altamouli Range, who visited and camped at Barrow Point, making tracks or "pads" which "extend everywhere along the coast turning inland only when necessary to avoid rocky cliffs."

¹¹⁷ Haviland and Hart 1999, 49.

¹¹⁸ *Ibid.*, 50. "The main camp in the [Wakooka] area was located on the beach near the mouth of Wakooka Creek, a way station between Barrow Point and Cape Bowen to the south."

¹¹⁹ Roth, "Report Re Distribution of Gifts to Coastal Aborigines", 1899, 1. Roth describes landing "at a spot about two-and-a-half miles [four kilometres] north of Cape Bowen, where Euro found no inconsiderable difficulty in picking up the main track leading through the scrubs" because of the cyclone damage, to meet Kenny and 30 Barrow Point people.

¹²⁰ *Ibid.*, 2. Roth states that Kenny "told me that just south of Cape Bowen he had found a dingey [sic] ..." belonging to the *North Wales*, probably on his trip back to Cooktown after the cyclone.

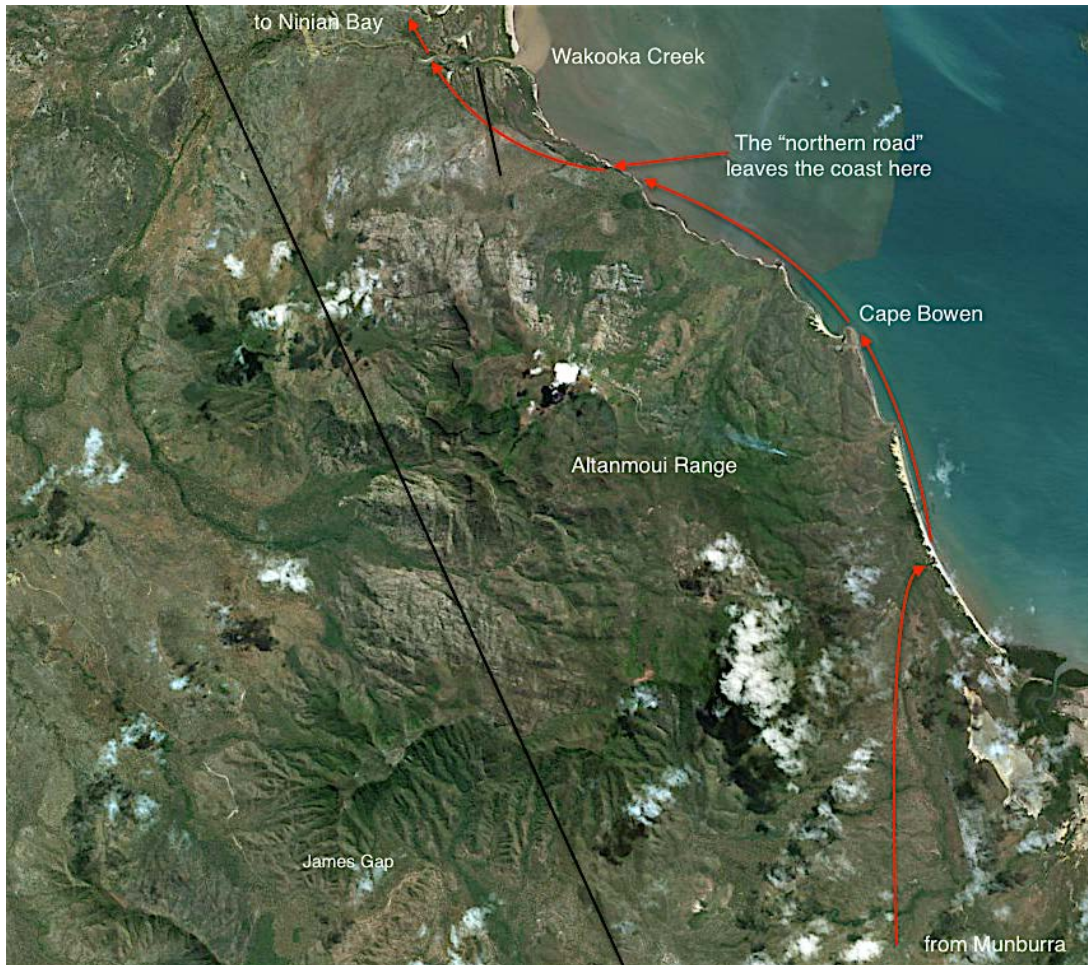


Figure 2.6 Satellite photograph showing, in red, Kenny's route to Wakooka Creek. The black line represents the boundary, in Figure 2.5, of Kenny's patrol territory (satellite image Geoscience Australia).



Figure 2.7 The Northern Road, in red, avoids the mouth of Wakooka Creek and follows a path now marked by a vehicular track. A ridge near the track about 800 metres inland shows signs of a large Aboriginal camp and matches the description of Kenny's 1899 campsite. The track continues west to cross Wakooka Creek 2.4 kilometres inland before turning north (satellite image Geoscience Australia).

Wakooka Creek is lined with mangroves and is tidal for 2.4 kilometres (1.5 miles) inland (Figure 2.7). Near the tidal limit there is a ford, with fresh waterholes above. Here the creek can be crossed on foot and horseback.¹²¹ The creek mouth is open to the sea, although it can be crossed at low tide by walking out into the bay. In 1899, the “well marked” Aboriginal road crossed the creek more easily and safely at the inland ford.¹²² It was also a more direct route (on high ground, through open scrub and crossing fresh water creeks), to the main camps of the Barrow Point people.¹²³ When Kenny, his five troopers and 10 horses made camp at 6 p.m. on 4 March, about an hour before sunset,¹²⁴ “on a ridge fully 40 feet above sea level and about half a mile from the beach, with scrub and a high sand ridge between the camp and beach,”¹²⁵ he was following the Northern Road.¹²⁶ There are no other routes within Kenny’s narrow patrol area on this strip of coast (Figure 2.6). It is also likely that, because the Native Police had patrolled Barrow Point regularly for decades, they camped at known and carefully chosen sites.¹²⁷ Kenny almost certainly timed his arrival for 6 p.m. at a known campsite where the horses could be watered and tents erected before dark.

Two kilometres south of Wakooka Creek, the Northern Road leaves the beach and travels behind the southern end of a line of sand ridges built up by prevailing southeasterly winds.¹²⁸ One sand ridge comes close to the road about 800 metres or half a mile from the beach. This small area south of Wakooka Creek is the only place that matches Kenny’s description of his campsite. The area also has features that make it

¹²¹ The ford is marked by shade trees on a southern bank that slopes gently down to a crossing of flat rock that is several metres wide, although pitted in places with holes.

¹²² Haviland and Hart 1999, 47. There are crocodiles in the area.

¹²³ *Ibid.*, 48–49. *lipwulin* is the main camp on a north-facing beach about two miles west of Barrow Point. Another large camp, *liwalin*, was “on the high flat ground to the south” near a fresh water creek.

¹²⁴ “Time of sun’s rising and setting throughout the colony”, *Pugh’s Almanac 1899*, Brisbane: T.P. Pugh’s Printing Office, 1899, 40. Sunset at Cooktown on 1 March 1899 was 6.53 p.m. and the sun sets at Cape Melville three minutes later. Therefore, sunset at Wakooka Creek on 4 March 1899 would be about 6.56 p.m.

¹²⁵ Vidgen, “Northern Hurricanes”, 5.

¹²⁶ Because of its significance and to distinguish it from other tracks, I will use capital letters for Northern Road hereafter.

¹²⁷ Richards 2005, 353–354. The Eight Mile Native Police Station opened in 1881. “The Queensland Native Police”, *Telegraph* (Brisbane), 1 April 1879, 3. There was a Native Police detachment in Cooktown in the mid-1870s.

¹²⁸ Roth, “Report Re Distribution of Gifts to Coastal Aboriginals”, 1899, 2. Three months after he was shown the Northern Road at Wakooka Creek, Roth came ashore by dinghy south of Wakooka Creek and “about 2 1/2 miles north of Cape Bowen.” Roth describes Euro searching for the track at this point.

a suitable campsite for a patrol on horseback. I inspected the ridge in September 2018 in a field trip to the area. The campsite is near the track, and in the wet season has fresh water lagoons to the south and east for watering horses and open areas of grass on its flat top. (There is no easy access to fresh water on the beach north of Wakooka Creek. To reach Barrow Point along the beach, horses would need to cross four saltwater estuaries draining large areas of mangroves and mudflats behind the beach.)¹²⁹ Being at the extreme southern end of the Bowen Bay sand dune system, the campsite is partly sheltered from the more common south-easterly winds by Cape Bowen. There is, as Kenny described to A. R. Vidgen, a “high sand ridge between the camp and the beach”, rising to 15 metres.¹³⁰ The sand ridge on which Kenny camped appears to be nine to 13 metres above sea level and flanked north by the tidal creek and mangroves, a salt pan to the west, and seasonal fresh water lagoons south and east, making it more easily defended. As will be described in Chapter Three, an inspection of this ridge showed evidence of it having been a large Aboriginal camp, with marine shells and stone tools visible. By 1899, it had been abandoned after earlier Native Police reprisals and the camps of the Barrow Point people were two or three hours ride north. If Kenny was planning to visit those people, or to search the beach north of Wakooka Creek for the missing man and the dinghy, he could use this site as a base to which to return the next night. As will be shown, the low-lying land behind the dunes between Wakooka Creek and Saltwater Creek two kilometres north is also the only place on the coast north or south of Barrow Point where the sea rising 13 metres could reach “two to three miles” (3.2 to 4.8 kilometres) inland.

The fleets

Using the methodology already outlined, the most reliable evidence is used in this thesis to recreate the positions of the fleets before the cyclone. Appendix 2 lists the observations that will be used in Chapter Five to remodel aspects of the cyclone. Because the event involved more than 100 vessels and 1,000 people at sea, the

¹²⁹ Haviland and Hart 1999, 144–145.

¹³⁰ Geoscience Australia ArcGis data. These elevations from satellite data are not accurate and the ridge needs to be measured more precisely.

experiences of all vessels and people cannot be fully described in this thesis. Instead, an abbreviated description using selected evidence follows.

By 4 March, the pearling fleets had congregated in Princess Charlotte Bay. The pearling schooner *Aladdin* was anchored on the western side of Princess Charlotte Bay, about 80 kilometres west-north-west of Cape Melville. The *Aladdin* was captained by Edwin Munro, and owned by Munro, P. P. Outridge, and James Clark. It and its fleet of 14 luggers were anchored on the north-west side of Burkitt Island,¹³¹ a low sandy island about two-and-a-half kilometres in circumference and covered in bushes.¹³² Burkitt Island, also known as No. 1 Claremont Island, is part of a group of five islands known as the Claremont Group (see Figure 2.8). Nearby was the schooner *Olive*, owned by James Clark, his older brother and ship's captain Steve Clark, and the fleet manager H. G. Vidgen. Victor Clark, a nephew of James and Steve Clark, was also aboard.¹³³ The *Olive* also had its fleet of 14 luggers anchored nearby.¹³⁴ About eight kilometres to the east-north-east of Burkitt Island was Pelican Island, a coral reef with an exposed sand beach. Anchored north-west of Pelican Island was the schooner *Meg Merrilies* and its 14 luggers, owned by Herbert Bowden and Patrick John Doyle, two prominent Thursday Island businessmen.¹³⁵ Nearby was the fleet of Sydney-registered schooner *Tarawa*, captained by David Jones, the fleet's tender *Wai Weer*, and 15 luggers owned by the Queensland Pearl Shell Fishery Company.¹³⁶

¹³¹ Munro 1899.

¹³² Yule and Browning (Admiralty Survey), 1898, 386.

¹³³ Lehane 2014, 169–171. Victor was the son of James Clark's older brother Aaron Clark.

¹³⁴ "The Late Hurricane. Return of the Warrego", 6.

¹³⁵ *Ibid.* See Chapter One for a description of the methodology used to show the position of the *Meg Merrilies*.

¹³⁶ *Ibid.*

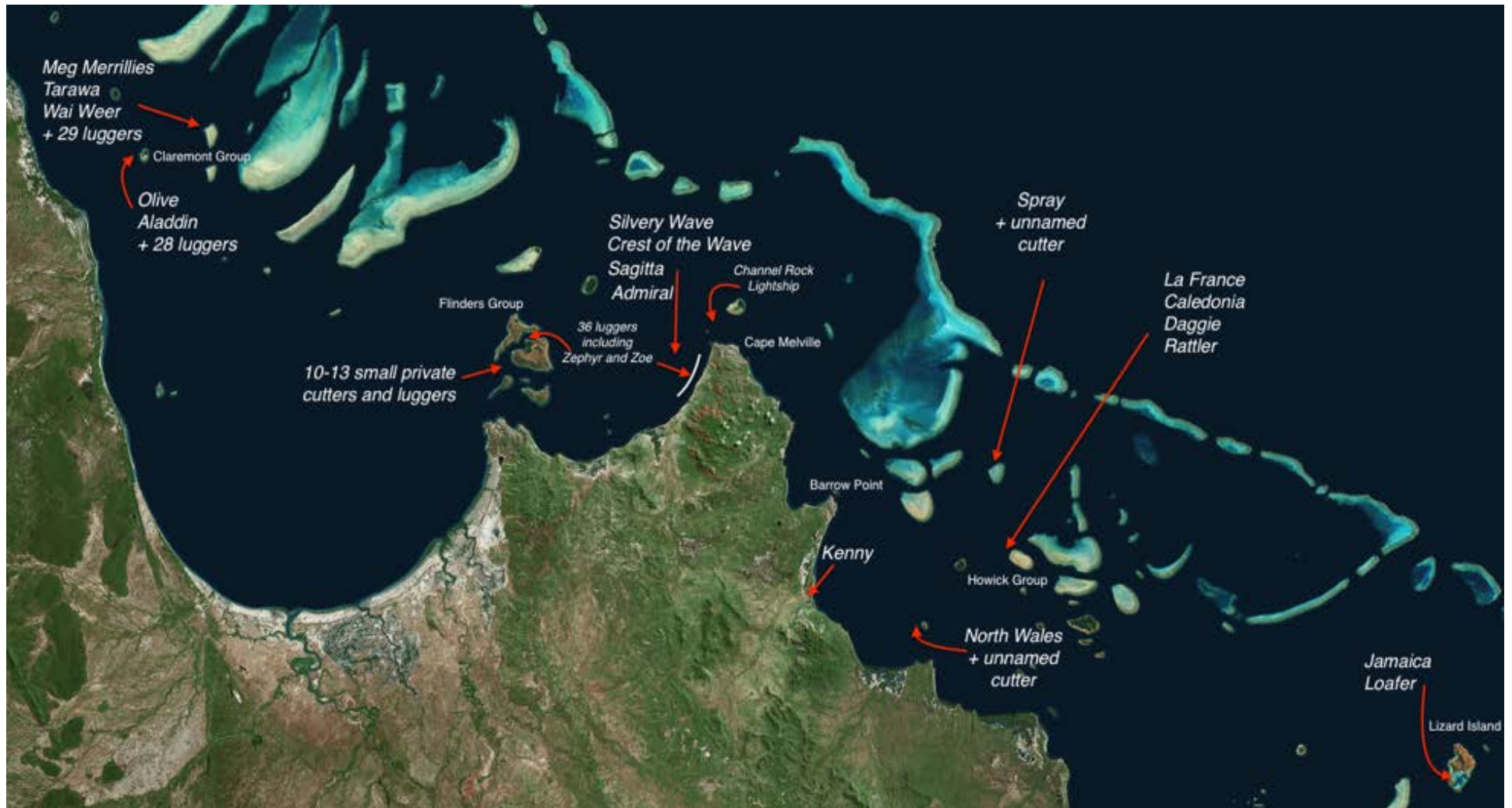


Figure 2.8 The positions of the fishing fleets on the evening of 4 March 1899, before the cyclone (satellite image Geoscience Australia).

About 80 kilometres east, amongst or near the Flinders Group of islands that marks the western edge of Bathurst Bay, were between 10 and 13 privately-owned cutters and luggers from the Torres Strait.¹³⁷ On the afternoon of 4 March, many of these small vessels were likely gathered at Port Stanley, a deep anchorage between Stanley, Blackwood and Flinders islands that was sheltered from northerly, easterly and southerly winds and was close to a watering point on Flinders Island.¹³⁸ Among the small vessels was the cutter *Marchand*, skippered by Edward Pitt from Darnley Island. The exact locations of the other vessels are unrecorded, but nearby were probably three of the Pitt family's other cutters: *Adi Alum* (skippered by Edward Pitt's brother William), *Fiji*, and *Ocean Bride*.¹³⁹ James Mills, from Naghir Island, but originally from Samoa, had three cutters in the area: *Lucia*, *Molyneaux*, and *Paleatea*.¹⁴⁰ Another Samoan living in the Torres Strait, Peter Bee, owned the cutter *Pacific*.¹⁴¹ Somewhere in the area were the cutters *Pirate*, registered to Ann Jane Bebrouth, *Maygalle*, operated by Barney Erromanga, and *Sun*, owned by Fred Morey, as well as a lugger, *Nancy*.¹⁴² On his way south from Thursday Island to buy a new vessel was Edward Pitt's brother-in-law, Pedro Guivarra, originally from the Philippines, on the cutter *Francis*.¹⁴³

¹³⁷ Illidge, "The Log of the Lally", 30. Illidge interviewed Edward Pitt, who said 10 vessels were anchored in the Flinders Group. Illidge was a magistrate at Chillagoe and Edward Pitt had witnessed the 1899 cyclone. This is a credible account, although separated from the event by nearly 25 years. Edward Pitt's recounting of names and events is consistent with other accounts, although the cutter *Marchand* is misspelled by Illidge "Marshen." The vessel was owned by Edward Pitt's father, Douglas Pitt Snr, who had lived in New Caledonia, and Illidge may have heard the French pronunciation of *Marchand* as Marshen. Its sister vessel *Daggie* (misnamed *Dackle* in the Outridge booklet) is itself likely a mishearing of the French word for dagger, Dague. "A Successful Mission", *Morning Post* (Cairns), 15 June 1905, 2. Edward Pitt's father, Douglas Pitt Snr, in 1905 had eight pearling boats including *Marchand* and another survivor of the 1899 cyclone, *Daggie*.

¹³⁸ Yule and Browning (Admiralty Survey) 1898, 382. "The watering place is at the extreme of Flinders island, just above high water mark, among a grove of pandanus trees, and easily found by landing where the mangroves join the sandy beach."

¹³⁹ Almond 1899. The report lists most of the vessels lost and their owners, although there are spelling errors. The exact positions of the vessels that sank in the Flinders Group are unknown.

¹⁴⁰ Ibid. Also see John Singe, *The Torres Strait. People and History*, St Lucia: UQP, 1979, 210. Singe writes that, "during the cyclone at Princess Charlotte Bay Mills lost a number of his luggers and men and never recovered sufficiently to carry on with his fleet."

¹⁴¹ Almond 1899; Anna Shnukal, "A Century of Christianity on Mabuyag", in Ian McNiven and Garrick Hitchcock (eds), "Goemulgaw Lagal: Cultural and Natural Histories of the Island of Mabuyag, Torres Strait", *Memoirs of the Queensland Museum*, 8, No. 2, 2015, 184.

¹⁴² Almond 1899. The owner of the *Sun* was Fred Morey, manager of Aplin Brown and Crawshay's Thursday Island fleet. Morey was not aboard the *Sun*, which appears to have been leased to a Japanese man. The owner of the lugger *Nancy* is listed as "Coen", which may be a misspelling of Cohen.

¹⁴³ Frank Guivarra in an email to Ian Townsend, 3 August 2018. Pedro Guivarra was born in 1867 at Masbate in the Philippines, and married Annie Pitt, sister of Edward Pitt, on Darnley Island in 1894.

About 24 kilometres east of the Flinders Group, on the other side of Bathurst Bay, anchored off the watering place at Cape Melville and sheltered from the south-easterlies by the Melville Range were three Clark Combination fleets.¹⁴⁴ The schooner *Sagitta*, of the Sagitta Pearling Company, with its nine luggers was owned jointly by James Clark, brothers P. P. Outridge and Alfred St John Outridge, and the ship's Captain Robert Murray. Nearby was the *Silvery Wave*, owned by James Clark and Edward Jefferson, the fleet's manager and schooner captain.¹⁴⁵ Near it were the fleet's 15 luggers. The schooner *Crest of the Wave*, owned by George Smith and James Clark, was anchored nearby with 13 luggers. The smaller schooner *Admiral*, a tender for the Clark Combination fleets, had arrived with supplies and passengers from Thursday Island on the Saturday and was anchored with them. On Saturday 4 March 1899, while the *Admiral* unloaded crew and supplies, the fleets' luggers transferred their weekly catch of shell to the schooners, repaired diving equipment, and fetched fire wood and water from the shore.¹⁴⁶ One of the luggers anchored off the watering place was the *Sagitta* fleet's *Zoe*, skippered by Willie Tanna, with a crew of six. The crew went ashore for water in the morning and in the afternoon, after waiting their turn, loaded shell onto the *Sagitta* and took on supplies for the following week.¹⁴⁷ Four miles north-east, within sight of the fleet in Bathurst Bay, was the *Channel Rock Lightship*, with its crew of four. It was anchored next to the main shipping channel about two miles north of Cape Melville, marking a reef called Channel Rock.¹⁴⁸

Forty-five kilometres south-east of Cape Melville, at Noble Island, the lugger *North Wales* anchored in the afternoon. It was being sailed from Thursday Island to Cooktown where William Hamilton, its new owner, was to sail it to Samarai in British New Guinea.¹⁴⁹ About 15 kilometres east of Noble Island was a cluster of islands called the Howick Group, where at least seven cutters were anchored. The *Rattler* and *Daggie*, owned by the Pitt family of Darnley Island, were anchored at Ingram

¹⁴⁴ "The Late Hurricane. Return of the Warrego", 6.

¹⁴⁵ Lehané 2014, 169. Lehané cites a letter from James Clark to Reginald Hockings dated 17 August 1898.

¹⁴⁶ Anonymous 1899, 22.

¹⁴⁷ *Ibid.*, 31.

¹⁴⁸ Yule and Browning (Admiralty Survey) 1898, 385.

¹⁴⁹ "Statement of Adrianna, [sic] Manilla", in William Hamilton, "Account of Prospecting Voyages for Pearl Shell in New Guinea and the Solomons 1899–1901", John Oxley Library, OM71–4, 1, Brisbane, 1.

(No. 8 Howick) Island.¹⁵⁰ Nearby, also at Ingram Island, was the Thursday Island cutter *Jun Yoshi* (also called *Yunyo*) and two cutters from New Caledonia, *Caledonia* and *La France*.¹⁵¹ The position of the cutter *Ada*, owned by William Campbell (and previously owned by the same consortium that owned the *Jun Yoshi*), is unknown, but two unnamed cutters seen at Noble Island and Stapleton Island that evening may have been the *Ada* and a Japanese-owned boat, the *Kotohira*.¹⁵² Near Stapleton (No. 10 Howick) Island, a cutter owned by Edward Mosby was anchored. This was the *Spray*, with R. Hanson, a Dane, reported to be in charge.¹⁵³ About 55 kilometres south-east of the Howicks, near Lizard Island, were anchored the cutters *Jamaica*, owned by Douglas Pitt Snr, and the *Loafer*, owned by Charlie Lifu.¹⁵⁴

Cyclone observations

In the Claremont Group, the schooner *Aladdin* reported a light wind from the south during the day, although it was calm at noon, and the barometer read 29.59inHg (1002.03hPa).¹⁵⁵ Although this was 0.11inHg (0.33hPa) below the previous day, the ships' captains were not suspicious. Edwin Munro on the *Aladdin* noted his barometer readings (Table 2.1) and later wrote, "The bar had been pretty steady before the blow."¹⁵⁶ About 2 or 3 p.m. he reported a sharp south-easterly rain squall followed by light wind, writing that, "from the readings up to 6 p.m. on the 4th, we would not expect anything more than a fresh breeze — perhaps squally with rain."¹⁵⁷ At 6 p.m. on Saturday, the barometer was 29.61inHg (1002.7hPa), a slight rise since the 3 p.m. reading, but lower than the previous three days.

¹⁵⁰ "The Late Hurricane. Return of the Warrego", 6. *Rattler* was skippered by Douglas Pitt Jnr, whose brother Edward was in the Flinders Group and father, Douglas Pitt Snr, was at Lizard island.

¹⁵¹ Ibid. The *Jun Yoshi* and a lugger named *Yunyo* in newspapers appear to be the same vessel. Douglas Pitt Jnr described the *Caledonia* and *La France* as being skippered by "two Frenchmen, with a crew of six aboriginals and one Bengalee." It is likely they had come from New Caledonia and recruited local Aboriginal people.

¹⁵² Almond 1899. Of the Japanese cutters *Sun*, *Ada*, and *Jun Yoshi*, known to be in the cyclone, *Ada* and *Sun* appear to have had European owners by the beginning of March. The owner of the *Kotohira* is listed as W. Utagiuro.

¹⁵³ "The Late Hurricane. Return of the Warrego", 6.

¹⁵⁴ Ibid. Charlie Lifu's daughter Annai was married to Edward Pitt, one of Douglas Pitt Snr's sons. The experience of the extended Pitt family will be discussed in Chapter Three.

¹⁵⁵ Munro 1899.

¹⁵⁶ Ibid.

¹⁵⁷ Ibid.

The Bar had been pretty steady before the blow

Mch 7	6 am		9 am		11 am		3 pm		6 pm	
	Bar	Ther	Bar	Ther	Bar	Ther	Bar	Ther	Bar	Ther
1 st	29.75	82	29.71	86	29.70	84	29.69	85	29.69	84
2	29.72	82	29.75	84	29.71	85	29.65	85	29.69	84
3	71	82	75	84	70	86	63	85	66	86
4	66	81	70	84	59	86	57	88	61	81
5	09		22		39		44		54	

Table 2.1 Edwin Munro's barometer readings aboard the *Aladdin*, from his handwritten notes. Above the table, Munro wrote: "The Bar had been pretty steady before the blow." (Simon Edwin Munro's notes in his own hand, written 1899, supplied by Duncan McArdle, husband of Catriona Mary Munro McArdle, Munro's granddaughter. Photocopy from Munro family papers.)

On the eastern side of Cape Melville, at Noble Island, the lugger *North Wales* had anchored about 1 or 2 p.m. and Adriana, the brother of one of the Manilla crew members, recalled that the winds at the time were light and from south-east.¹⁵⁸

Riding north along the beach near Cape Bowen, west of the *North Wales*, that afternoon, Constable Kenny observed a light south-easterly wind and drizzling rain.¹⁵⁹ By 4 p.m. the wind in the Claremonts, where the *Meg Merrilies*, *Aladdin*, *Tarawa*, and *Olive* were anchored, was moderate from the south-east,¹⁶⁰ but then at 5.30 p.m. a rainsquall came in "with a rush."¹⁶¹ A feature of an approaching cyclone is concentric squall lines, which can sometimes cause vessels further away from the cyclone's centre to experience stronger winds and heavier rain than vessels closer.¹⁶² At the same time, Munro on the *Aladdin* recorded that the wind "came in a rush,"¹⁶³ Captain William Field Porter aboard the *Crest of the Wave*, who was 80 kilometres closer to the approaching cyclone, in Bathurst Bay, reported that there

¹⁵⁸ Hamilton 1899–1901, 1.

¹⁵⁹ Vidgen, "Northern Hurricanes", 5.

¹⁶⁰ W. T. Atkinson, Reports and Decisions on Shipping Accidents, "Marine Board of Queensland Report on the Stranding of the *Meg Merrilies*", 4 April 1899, HAR/81, QSA, ID84435.

¹⁶¹ Munro 1899.

¹⁶² Terry 2007, 54.

¹⁶³ Munro 1899.

“wasn’t much wind,”¹⁶⁴ although it had been blowing “fresh all day SE, going SSE.”¹⁶⁵ Around this time, however, some vessels prepared for bad weather.¹⁶⁶ Willie Tanna, of the lugger *Zoe*, moved the lugger closer to shore, under the lee of the Cape Melville Range, after one of the crew members who had worked with the Clark fleets in Western Australia had told him a cyclone was coming.¹⁶⁷ At Noble Island, the crew of the *North Wales* was playing cards and Captain Powell was “lying on the skylight, singing, when heavy rain came on” and they all went below.¹⁶⁸

At 7 p.m., Captain William Thompson on the schooner *Meg Merrilies*, anchored north-east of Pelican Island, reported a moderate breeze from the south-east.¹⁶⁹ Steve Clark, the captain of the nearby schooner *Olive*, also described the wind at that time from the south-east.¹⁷⁰ The *Aladdin* recorded an air pressure of 29.61Hg (1002.7hPa), similar to the reading recorded by the *Crest of the Wave* 80 kilometres east in Bathurst Bay.¹⁷¹

At 9 p.m. in Bathurst Bay, the wind strengthened. Porter of the *Crest of the Wave* later wrote to his parents that at 9 p.m. the wind “blew fearfully hard, the glass going down fast.”¹⁷² The eye of the cyclone was still nearly eight hours away, but the squalls were so strong that some vessels broke their moorings. At Stapleton Island, on the more exposed eastern side of Cape Melville, Captain Hanson of the cutter *Spray* said that at 9 p.m. a nearby Japanese boat was blown onto a reef, and disappeared.¹⁷³ Between 9 and 10 p.m. in Bathurst Bay, the wind came from the south-west and the luggers close to shore began to drag their anchors.¹⁷⁴ The lugger

¹⁶⁴ Anonymous 1899, 31.

¹⁶⁵ “Log *Crest of the Wave*”, in John Douglas, “Report of the Government Resident at Thursday Island for 1898”, *QVP*, 1, 1899, 100. This log and the narratives surrounding Captain Porter’s experience are discussed in Chapter Three.

¹⁶⁶ “Late Northern Storm”, *Week* (Brisbane), 7 April 1899, 13. At least one of the *Sagitta*’s luggers, *Zephyr*, moved to the Flinders Group, where it sank.

¹⁶⁷ Anonymous 1899, 50.

¹⁶⁸ Hamilton 1899–1901, 1.

¹⁶⁹ Atkinson 1899, 333. Thompson reported, “wind S.E. moderate, but freshening gradually to midnight.”

¹⁷⁰ “The Late Hurricane. Return of the Warrego”, 6.

¹⁷¹ Munro 1899.

¹⁷² Porter, “The Great Hurricane at Queensland. A Struggle for Life”, 1.

¹⁷³ “The Late Hurricane. Return of the Warrego”, 6.

¹⁷⁴ Anonymous 1899, 31. This information comes from Willie Tanna of the lugger *Zoe*. The luggers were close to the coast, beneath the Melville Range, where turbulence caused by the range may have influenced wind speed and direction.

Zoe let out 45 fathoms or 80 metres of anchor chain, but still dragged generally north towards rocks off the tip of Cape Melville.¹⁷⁵ About this time, at 9 or 10 p.m., the men on the lugger *North Wales*, south of Cape Melville at Noble Island, were woken by “a strong wind from the South East which kept on increasing in force.”¹⁷⁶ Soon after, a small red cutter that had been anchored close to the island sank, “those on the *Wales* hearing the cries for help but could give no assistance.”¹⁷⁷

At 10 p.m. in Bathurst Bay, the *Crest of the Wave* had also begun to drag its anchor and drift away from the shore. Captain Porter dropped another anchor, but by that time, “it blew so hard that even with both anchors down she was running away with them, and got broadside on to the blast.”¹⁷⁸ Porter also ordered the masts cut down, the wind so strong that the force against the masts threatened to push the ship over. At 10 p.m., west of Bathurst Bay in the Claremonts, the wind was gale force and the schooner *Olive* began to drag its anchor.¹⁷⁹

By 11 p.m. all vessels described gale force winds. In the Claremonts, the *Aladdin* reported the wind veering to the south-west, and nearby the *Meg Merrilies* also reported the gale force wind veering to the south-west by midnight.¹⁸⁰ More than 100 kilometres east-south-east, on the exposed eastern side of Cape Melville, closer to the centre of the approaching cyclone, the cutter *Spray* ran aground on Stapleton Island.¹⁸¹ At Noble Island, the *North Wales* dragged its anchor. In Bathurst Bay, the *Crest of the Wave* reported that the air pressure was down to 29.40inHg (995.59hPa) at 11 p.m.¹⁸² This was about the same time Porter also said he saw the *Channel Rock Lightship*. The lightship was anchored beside the shipping channel and the *Crest of the Wave* was by then being driven out of Bathurst Bay and further

¹⁷⁵ Anonymous 1899, 31.

¹⁷⁶ Hamilton 1899–1901, 1.

¹⁷⁷ Ibid.

¹⁷⁸ “The Late Hurricane. Cruise of the *Warrego*”, 5.

¹⁷⁹ Ibid.

¹⁸⁰ Munro 1899. Munro wrote that the wind from the south-east continued to “blow right on, veering by 11pm to SW.”

¹⁸¹ “The Late Hurricane. Return of the *Warrego*”, 6. The report describes the *Spray* being pushed into mangroves, but there are no mangroves on Stapleton Island or on the reefs nearby. It is likely that Colvin, the ships purser who reported the event, confused the account of the *Spray* with the account of the *Daggie*. The *Daggie*, anchored at Ingram Island, survived the cyclone’s eye and was blown south into mangroves somewhere between Beanley Island and Murdoch Point.

¹⁸² “Log *Crest of the Wave*”, in Douglas, *QVP*, 1899.

north.¹⁸³ At 11.30 p.m., Porter reported the “wind went to S and came in rainy squalls.”¹⁸⁴ Constable Kenny at Wakooka Creek south of Barrow Point also reported the wind from the south-south-east at 11.30 p.m. and increasing “every minute.”¹⁸⁵ About midnight at Noble Island, Captain Powell on the *North Wales* threw out a second anchor, the lugger held, but the waves broke over it and it began to fill with water.¹⁸⁶ Further east at Stapleton Island, the wind changed to the east.¹⁸⁷

In Bathurst Bay, many of the luggers that had anchored close to the shore were at the end of their anchor chains and were also, like the *Crest of the Wave*, being pushed north or north-east. At midnight, the lugger *Zoe* struck Inner Boulder Rocks and broke up (Figure 2.9).¹⁸⁸ Nearby, the lugger *Little Bill* sank and two of the crew, “Albert and Moses, natives of Ware island in the South Seas,” were swept by the wind towards Pipon Island.¹⁸⁹ The *North Wales* sank south of Cape Melville, near Noble Island.¹⁹⁰



Figure 2.9 Inner Boulder Rocks off the tip of Cape Melville, where several pearling luggers were wrecked in the cyclone (photograph Melisha Mclvor, Queensland Government).

¹⁸³ “The Late Hurricane. Further Particulars. Return of the Steamer Warrego. Loss of Life Estimated at 400”, *Brisbane Courier*, 14 March 1899, 5. This article says the barometer went down to 27 inches at 11 p.m., but this is a typographical error and should read 29 inches.

¹⁸⁴ “Log *Crest of the Wave*”, in Douglas, QVP, 1899.

¹⁸⁵ Vidgen, “Northern Hurricanes”, 5.

¹⁸⁶ Hamilton 1899–1901, 1.

¹⁸⁷ “The Late Hurricane. Return of the Warrego”, 6.

¹⁸⁸ Anonymous 1899, 31.

¹⁸⁹ *Ibid.*, 34.

¹⁹⁰ Hamilton 1899–1901, 2.

At the Claremonts, on the western side of Princess Charlotte Bay, the *Meg Merrilies* reported the wind suddenly veering to the south-west at midnight and reaching hurricane force. The schooner dragged its anchor, and Captain Thompson ordered the masts to be cut down. The full length of anchor chain, 100 fathoms (180 metres) had been let out, but the schooner was blown to the north-east towards a number of large coral reefs.¹⁹¹ Not far from the *Meg Merrilies*, the *Olive* also reported the hurricane force wind veering to the south-west at midnight.

North of Bathurst Bay, in or just north of the shipping channel, Captain Porter on the *Crest of the Wave* at 1 a.m. reported that the air pressure had fallen to 28inHg (948hPa).¹⁹² This is equivalent to the lowest recorded pressure of Cyclone *Tracy* (950hPa) which ravaged Darwin in 1974 and where wind gusts of 217km/h were recorded.¹⁹³ The pressure was to continue to fall, and the wind to increase, for another four hours. At Wakooka Creek, the tents of Kenny and his troopers had been blown away and “all hands made for the biggest open space near, guided by very vivid lightning, which occurred at intervals. Here it was necessary to cover up face and hands in a blanket to keep off the pelting rain, which seemed to hit as hard as hail.”¹⁹⁴ At 2 a.m., the wind at Wakooka Creek, which since 11.30 p.m. had been blowing from the south-south-east, veered “a few points” to the east and blew with hurricane force.¹⁹⁵

By 3 a.m., the wind in the Claremonts was blowing from the south-west and veering to the west. Sometime later, the anchor cables of the schooner *Tarawa*, which had been anchored near the *Meg Merrilies* north-west of Pelican Island, parted and the *Tarawa* was blown onto the island.¹⁹⁶ The schooner *Olive*, which had been anchored north-west of Burkitt Island, about eight kilometres west of Pelican Island, was also dragging its anchor and as the wind veered, it was blown clockwise around the island so that by daylight it was on the south-eastern side.¹⁹⁷

¹⁹¹ Atkinson 1899, 333.

¹⁹² “Log *Crest of the Wave*”, in Douglas, QVP, 1899.

¹⁹³ BOM, *Report on Cyclone Tracy, December, 1974*, Canberra: Australian Government Publishing Service, 1977, 37–41.

¹⁹⁴ Vidgen, “Northern Hurricanes”, 5.

¹⁹⁵ *Ibid.*

¹⁹⁶ “The Late Hurricane. Return of the Warrego”, 6.

¹⁹⁷ *Ibid.*

Between 3 a.m. and 4 a.m., several luggers in Bathurst Bay sank almost intact, and were later salvaged. James Clark speculated that this must have been after the cyclone's centre crossed Bathurst Bay, the wind reversing direction.¹⁹⁸ However, as will be discussed in Chapter Five, it was not until after 5 a.m. that the wind came from the opposite direction, as the eye passed.¹⁹⁹ The evidence suggests that many boats in Bathurst Bay sank at the end of their anchor chains close to the shipping channel more than an hour before the wind reversed direction. Why did they sink at that time?

The lugger *Zanoni* sank about 3.30 a.m., "when the waves were found to be breaking over the boat" near Boulders Rocks, according to the lugger's Japanese diver and its only survivor, Gentaro.²⁰⁰ The *Zanoni* was at the end of its anchor chain when it broke up on the rocks, and this appears to be around the time other luggers sank in a line north-west of Inner Boulder Rocks. Clark described the clocks of the luggers recovered having stopped between 3 and 4 a.m., when he assumed the wind changed to blow from the north-west catching them all against "a dead lee shore in shallow water, with the larger vessels probably thumping on the bottom in the hollow of the sea."²⁰¹ However, the winds did not shift to the north-west until after 5 a.m. Between 3 and 4 a.m. the cyclone's eye wall, with the most destructive winds from the south and south-east, began to pass over Bathurst Bay.²⁰² The "bumping on the bottom" of the schooners in Bathurst Bay was caused by a negative storm surge, in which the sea level falls on the opposite side of the cyclone to which the storm surge occurs.²⁰³ When the eye passed after 5 a.m., the sea level in Bathurst Bay rose, the waves and wind returned with a rush from the north-west, and the

¹⁹⁸ "The Late Hurricane. Letter from Mr. James Clark", *Brisbane Courier*, 15 May 1899, 7. Of the 10 boats that were later raised intact from the seabed, many had their clocks stopped between 3 a.m. and 4 a.m.

¹⁹⁹ Porter, "The Great Hurricane at Queensland. A Struggle for Life", 1. Porter said the lull arrived after he read the barometer at 4.30 a.m. (The "log" published in John Douglas's report to the Government says the lull started at 4.45 a.m.) The *Crest of the Wave* by that time was north of Bathurst Bay. The lugger *Estelle* experienced a short lull after 5am, but it too had drifted north. The movement of the cyclone will be examined in Chapter Five.

²⁰⁰ Anonymous 1899, 33.

²⁰¹ "The Late Hurricane. Letter from Mr. James Clark", 7.

²⁰² For a reconstruction of the cyclone, see Chapter Five.

²⁰³ Benjamin Wong and Ralf Toumi, "Model Study of the Asymmetry in Tropical Cyclone-induced Positive and Negative Surges", *Atmospheric Science Letters*, 17, No. 5, 2016, 334–338.

wreckage from the schooners *Sagitta* and *Silvery Wave* was swept towards the shore to be scattered along the Bathurst Bay beaches.²⁰⁴

At 4.30 a.m., Captain Porter on the *Crest of the Wave*, then well north of Bathurst Bay, reported that his barometer registered 26inHg (880hPa).²⁰⁵ Later that day, he told Captain Jenkins, the captain of the British India steamship *Duke of Norfolk*, of the low barometric pressure.²⁰⁶ The *Duke of Norfolk* had anchored beside the *Crest of the Wave* that evening and the next day, 6 March, Porter wrote a letter to his parents and sent it aboard the *Duke of Norfolk* with his wife, Maggie, stating again that “about 4.30 a.m.” the “barometer was down to 26.” That reading was viewed with scepticism by Captain Hugh Craig, the Thursday Island-based pilot of the steamship *Kasuga Maru*, which two days later, at 7 a.m. on 8 March, also stopped to speak to Porter. Captain Craig said that he had “been in some of the worst typhoons ever experienced in the China seas; but he had never known the glass to fall lower than about 27.30inHg (924hPa).”²⁰⁷ Porter’s reading was later altered in the Outridge booklet to 27inHg (914hPa) and this changing of the record will be discussed in Chapter Five.²⁰⁸ After taking the barometer reading at 4.30 a.m., Porter reported a lull, followed “a few minutes” later by hurricane force winds from the north-west.²⁰⁹ Edwin Munro on the *Aladdin*, later considered the observations of the *Crest of the Wave*, which was by 4.30 a.m. about 70 kilometres east of the *Aladdin*.

The *Crest* reports the wind starting at SE and veering to SW when it appeared, after a few minutes lull to come from NW with even greater force. The Nor West change came in with her about daylight, whereas with us at the Claremonts it was about 9 a.m. before it changed to that direction.²¹⁰

²⁰⁴ “The Late Hurricane. Letter from Mr. James Clark”, 7. James Clark described the “raging mass of breakers two miles outside of the place the boats anchored in”, which is approximately where many of the boats sank.

²⁰⁵ Porter, “The Great Hurricane at Queensland. A Struggle for Life”, 1.

²⁰⁶ “The Steamer Duke of Norfolk. Captain Jenkins Explains”, *Brisbane Courier*, 18 March 1899, 8.

²⁰⁷ “Report by the Kasuga Maru”, 5.

²⁰⁸ Nott et al. 2014, 757–765

²⁰⁹ Porter, “The Great Hurricane at Queensland. A Struggle for Life”, 1.

²¹⁰ Munro 1899.

The *Aladdin* recorded its lowest pressure, 29.09inHg (985.1hPa), at 6 a.m.²¹¹ Nearby, the schooner *Olive* recorded 29.10inHg (985.4hPa),²¹² a reading almost identical to the *Aladdin*'s and suggesting a high level of consistency in the schooner captains' observations and between their instruments. The *Aladdin* did not experience the lull, but Munro observed that the *Crest of the Wave* "was evidently near the centre of it, but not exactly in the centre."²¹³ As will be shown in Chapter Five, the *Crest of the Wave* was in the top of the cyclone's eye.

The storm tide at Constable Kenny's campsite

At 5 a.m., at Wakooka Creek south of Cape Melville and the cyclone's eye, the wind shifted to the north-east, "and if possible blew harder than ever, with torrents of rain." Kenny did not experience the lull, but he was in the southern part of the cyclone when the destructive eye wall passed over Cape Melville.

Shortly after the wind shifted to north-east an immense tidal wave swept in shore and reached waist deep on the ridge with the camp on it, completing the misery of the constable and troopers, also spoiling Kenny's watch. Here the wave stretched between 2 and 3 miles inland.²¹⁴

As discussed, there is only one small area where Kenny could have observed what he described, and that is on a ridge on the southern side of Wakooka Creek (as marked on Figure 2.10). It is also the only area where a storm tide is corroborated by other witnesses. Walter Roth came ashore four weeks after the cyclone and met Kenny on the Northern Road of the Barrow Point people. On 3 April 1899, Roth landed near Wakooka Creek because he was "anxious to reach the main camp of the Barrow Point tribe as soon as possible."²¹⁵ However, the main camp of the Barrow Point people was at Ninian Bay, 14 kilometres north. Roth's official mission was to distribute aid to the Aboriginal people and would have reached the main camp of the Barrow Point people quicker if he had sailed directly to Ninian Bay, so

²¹¹ Ibid.

²¹² "The Late Hurricane. Return of the Warrego", 6.

²¹³ Munro 1899.

²¹⁴ Vidgen, "Northern Hurricanes", 5.

²¹⁵ Roth 1899, 2.

why did Roth meet Kenny at Wakooka Creek? He had pre-arranged to meet Kenny 2.5 kilometres (1.5 miles) inland at a place known to both; the ford where the Northern Road crossed Wakooka Creek, which Roth had visited three months earlier. It is likely Roth arranged to meet Kenny at that place because he was curious about Kenny's description of the sea flooding inland. Making his way inland to meet Kenny, Roth described the "incursion of the sea being evidenced throughout in the tufts of sea-weed dangling on high branches, and in the numerous heaps of putrid mullet and rock-cod stenching the surrounding atmosphere."²¹⁶ The captain of the schooner *Canomie*, William Hamilton, who put Roth ashore near Wakooka Creek, later also described depressions in the land "a considerable distance inland with a quantity of sea mullet and Rock Cod dead, the sea having left them there."²¹⁷ (The evidence for the storm tide will be discussed further in Chapter Five.)



Figure 2.10 Topographical map of Wakooka Creek showing in red the area generally below 13 metres elevation (from NATMAP, Geoscience Australia).

²¹⁶ Ibid.

²¹⁷ Hamilton 1899–1901, 4.

The fleets after 5 a.m.

In Bathurst Bay, after the eye passed and the winds came from the north-west, the schooner *Silvery Wave* sank.²¹⁸ The hurricane-force wind swept debris, bodies, and survivors back towards the north-facing beach in Bathurst Bay. The diver Seto, who had been aboard the lugger *Estelle*, which sank at 6 a.m. north of Bathurst Bay, had experienced the eye of the cyclone for 10 minutes and was washed ashore at Bathurst Bay after six hours in the water.²¹⁹ The schooners *Admiral* and *Sagitta* sank at unknown times, the debris from the *Sagitta* washing ashore at Bathurst Bay.²²⁰ Outridge described wreckage found 400 metres inshore at Bathurst Bay,²²¹ likely caused by a combination of an high astronomical tide just after 5 a.m.,²²² the raised dome of sea beneath the cyclone's low central pressure,²²³ and wave run-up generated after the eye passed and the winds returned with hurricane force across 30 kilometres of open sea north of Bathurst Bay. As will be further described in Chapter Five, this is not the area of the cyclone's main storm tide, which occurred further south at Wakooka Creek. Of 43 vessels anchored in Bathurst Bay before the cyclone, only one, the schooner *Crest of the Wave*, was still afloat. All four men aboard the *Channel Rock Lightship* drowned when it sank at its moorings. Most vessels near the Flinders Group sank or had been blown long distances earlier in the night. The cutter *Sun* was found grounded on a sandbank 80 kilometres north-west of Flinders Island. In the Claremonts, the schooner *Meg Merrilies* was washed onto a reef and wrecked 16 kilometres north-east of Pelican Island. Four of its 14 luggers

²¹⁸ "The Late Hurricane. Further Particulars", 5. This report states that the *Silvery Wave* sank at 5 a.m. "The Late Hurricane. Cruise of the Warrego", 5. This report states the survivor "remained on the wreck till daylight, when he escaped on a plank." "The Late Hurricane. Return of the Warrego", 6. This report states that the *Silvery Wave* "went down about 6 a.m." Anonymous 1899, 32. Outridge reports that the vessel sank about 7.30 a.m.

²¹⁹ Anonymous 1899, 33.

²²⁰ Ibid., 24.

²²¹ Ibid., 50. Outridge visited the scene and described his experience. "About two miles from the Cape, wreckage is most plentiful, and in some cases is a quarter of a mile inland from the seashore."

²²² Tidal Unit, MSQ, Brisbane, 23 August 2018. MSQ was consulted and its tidal prediction program CPRED produced estimates of high tide at Munro Reef and Leggatt Island, the closest recording stations today. High tide at Munro Reef, 26 kilometres south-west of Cape Melville, is estimated to have been at 5.11 a.m. on 4 March 1899. Anomalies between that tidal estimate today and contemporary tide charts will be discussed in Chapter Five.

²²³ Terry 2007, 68. In what is called the "inverse barometer effect", the sea level rises one centimetre for every one hectopascal fall in air pressure. The air pressure on 4 and 5 March fell from 1007hPa to 880hPa, representing a sea level rise of 27 centimetres beneath the cyclone's core due to air pressure alone.

were lost.²²⁴ The *Tarawa* lost four boats,²²⁵ the *Aladdin* lost two boats and the *Olive* none. South of Cape Melville in the Howick Group, six vessels sank.

The known deaths are detailed in Appendix 1. At sea, 290 people are known to have drowned. On shore, Roth reported that three Barrow Point people died and four men and one woman were killed by falling trees or flying debris at Bathurst Bay. More may have later starved because these families “had also experienced great losses in the way of food plants and hunting gear.”²²⁶ (More deaths may have occurred when the cyclone moved inland across the countries of other people. The memories of the Aboriginal people will be discussed in Chapter Three.) The cyclone’s centre passed close to the town of Musgrave on the morning of 6 March, blowing down the Musgrave Telegraph Office “and all other buildings, including the police station.” It also knocked down the telegraph line for 55 kilometres miles north of Musgrave,²²⁷ and to an unknown point south between Musgrave and the Fairview Telegraph Station.²²⁸ The line was restored on Friday 10 March.²²⁹ The cyclone caused widespread flooding down the east Queensland coast, and squalls or tornadoes damaged buildings at Cooktown,²³⁰ and the Cape Bedford mission.²³¹

Conclusion

Applying the methodology described in Chapter One to historic documents, including newspapers, reveals the best evidence for the pearling disaster caused by the 1899 cyclone that struck Bathurst Bay. Contemporary political, social and economic narratives give that evidence context, providing insights that explain the social behaviour of the people who were there, as well as the natural behaviour of the

²²⁴ “The Late Hurricane. Return of the Warrego”, 6.

²²⁵ Ibid.

²²⁶ Roth 1899, 7–8.

²²⁷ “Late Bowen Cyclone”, *Brisbane Courier*, 14 March 1899, 4.

²²⁸ “Telegraphic Interruptions”, *Queenslander*, 18 March 1899, 477. Fairview is near the town of Laura.

²²⁹ “Telegraphic Communication Restored”, *Brisbane Courier*, 11 March 1899, 7.

²³⁰ “Rain in the North”, *Telegraph* (Brisbane), 7 March 1899, 5.

²³¹ Magdalen Mulum and Walter Roth, “A Letter to the Commissioner of Police from Magdalen Mulum of the Cape Bedford Mission with translation by W. E. Roth”, 23 March 1899, in Walter Roth, *Reports to the Commissioner of Police and Others, on Queensland Aborigines, 1898–1900*, A/19899, QSA, ID271655. Magdalen Mulum writes in Guugu-Yimidhirr: “Just now a big storm came here, broke some of our houses, throwing them, and also broke the banana stalks, leaving only young ones.”

cyclone. The lack of cyclones experienced north of Cape Melville during the short period of European settlement in Australia before 1899 led the pearling fleet owners to believe that the area was safe from cyclones. The world demand for pearl shell and the use by company pearling fleets of the floating station system led to a large number of vessels congregating in the Princess Charlotte Bay area before the end of the wet season in February and March 1899. The history of abuse of Aboriginal people by some members of the pearling and beche-de-mer fishing industries led to outbreaks of violence, explaining the presence of the Native Police in the area at the time of the disaster. Understanding the social history of the people ashore, including the long-running conflict between the Aboriginal people of Barrow Point and the Native Police, helps identify the camp site of the Native Police patrol and, therefore, a more precise location for the world record storm tide observed by Constable Kenny. The site was visited in September 2018 and found to contain evidence of a large Aboriginal campsite. Reports of the positions of the vessels in the area, and their observations, have been tested using the methodology, taking into account errors of translation and transmission. By more accurately describing the positions of the observers, their observations can be used with more confidence to reconstruct the cyclone and the disaster it caused. This data has been tabulated and will be used in Chapter Five to remodel the cyclone's behaviour. The following chapter explores the death toll and the European narratives of the disaster. It evaluates memories, deconstructs myths, and reconstructs the experiences of one Torres Strait Islander family from the best evidence.

CHAPTER 3

The People

Then we find dead mans. All along beach, plenty dead mans — plenty. Plenty Island boy, plenty mainland, plenty harp-caste, plenty New Guinea boy, plenty Jap man. An' white man he lie there, too, alla same, alla same dead. An' altogether they lie longa plenty shark an' plenty kingpish, an' barr'couta; plenty dead pish altogether lie 'longside dead mans. My word, he verra terrible storm that one!

Moira Newi reported by Ion Idriess in an interview published in 1927.¹

The methodology developed in Chapter One was applied to documentary evidence in Chapter Two to identify the best evidence from which to reconstruct the 1899 cyclone. This chapter will extend that process to explore the death toll, as well as the origin of several myths associated with the non-European experience of the pearling disaster. There is evidence that narratives involving Torres Strait Islanders and the Aboriginal people ashore evolved into myths that have been incorporated into social memory, as well as entering government and scientific datasets. For example, there is evidence that the Aboriginal death toll was altered in 1971, possibly as a response to contemporary national media discourses. How has this influenced the social memory of the disaster, and the application of science to the study of this cyclone? Evidence for the 1899 death toll will be reviewed, and the difficulties experienced identifying the dead discussed. A list of the known dead is provided in Appendix 1.

As discussed in the previous chapters, the European community represented four percent of the crews of the pearling fleets and four percent of the death toll, but Europeans were the main sources for all narratives associated with the 1899 cyclone and, therefore, had the most influence on the recording of history as well as the memorialisation of the event.² The 298 people known to have been killed can be

¹ Gouger (Ion Idriess), "Aboriginalities. Made in Australia", *The Bulletin*, 11 August 1927, 27. Idriess visited the Torres Strait islands several times in the 1920s. For example, see Ion Idriess, "The White Man's Prestige", *Sunday Mail* (Brisbane), 22 January 1928, 8. Idriess recounts his earlier visit to Masig (Yorke) Island where he met a woman named Moira, a servant of the school teacher Norma Reid.

² For example, Anonymous, *The Pearling Disaster, 1899: A Memorial*, Brisbane: Outridge Printing Company, 1899, which was written as an "account of the Europeans who were lost therein." The memorial at Bathurst Bay names the Europeans who drowned and states, "Over 300 Coloured Men

shown to come from more than 20 distinct nations or regions, but the social memory of the pearling disaster is based on the narratives of one culture, reflecting not just what is remembered, but, as historian Joy Damousi says, “that which we disavow.”³ (The influence of the political discourse in 1899 leading up to Federation and the White Australia Policy will be discussed in Chapter Four.)

One of the difficulties in reconstructing the non-European narratives is the departure from Australia after Federation of most of the surviving crew members, who took their memories with them. Many were repatriated when their contracts expired, left with the Clark Combination fleets to the Dutch East Indies, or were deported.⁴ This is particularly the case for most of Japanese, the Filipino, Malay and South Sea Islanders, who made up 71 percent of the men employed in the fleets on Shipping Articles (Chart 3.1). However, two non-European communities remained: The Australian Aboriginal and Torres Strait Island communities. Some foreign crew members who had settled in the Torres Strait and married also remained, and family memories as well as records of their experience exist.

One of the few such experiences to which the methodology, outlined in Chapter One, can be applied is that of the extended Pitt family from the Torres Strait, including Darnley Island woman Moira Newi, who survived by swimming about 20 kilometres to shore. She was awarded a medal for bravery during the cyclone by the Queensland Government, but her experience, as will be shown, evolved into a myth that reflected European narratives.

Drowned.” A memorial plaque in the All Souls St Bartholomew Quetta Memorial Church on Thursday Island names the Europeans and adds “295 coloured men.”

³ Joy Damousi, “History Matters: The Politics of Grief and Injury in Australian History”, *Australian Historical Studies*, 33, No. 118, 2002, 100.

⁴ The *Pacific Island Labourers Act 1901* led to the end of the recruitment of South Sea Islanders and the deportation of nearly 7,000 islanders after 31 December 1906, although some remained. See also, for example; Peter Corris, “‘White Australia’ in Action: The Repatriation of Pacific Islanders from Queensland”, *Historical Studies*, 15, No. 58, 1972, 237–250; Clive Moore, “‘Good-bye, Queensland, Good-bye, White Australia; Good-bye, Christians’: Australia’s South Sea Islander community and deportation, 1901–1908”, *New Federalist*, 4 December 1999, 22–29; Stephen Mullins, *Octopus Crowd: Maritime History and the Business of Australian Pearling in Its Schooner Age*, Tuscaloosa, Alabama: University of Alabama Press, 2019; Regina Ganter, *The Pearl-Shellers of Torres Strait: Resource Use, Development and Decline 1860s–1960s*, Carlton, Victoria: Melbourne University Press, 1994; Anna Shnukal, “Historical Mua”, in Bruno David, Louise Manas and Michael Quinnell (eds), “Gelam’s Homeland, Cultural and Natural History on the Island of Mua, Torres Strait”, *Memoirs of the Queensland Museum*, 4, No. 2, 2008, 61–205.

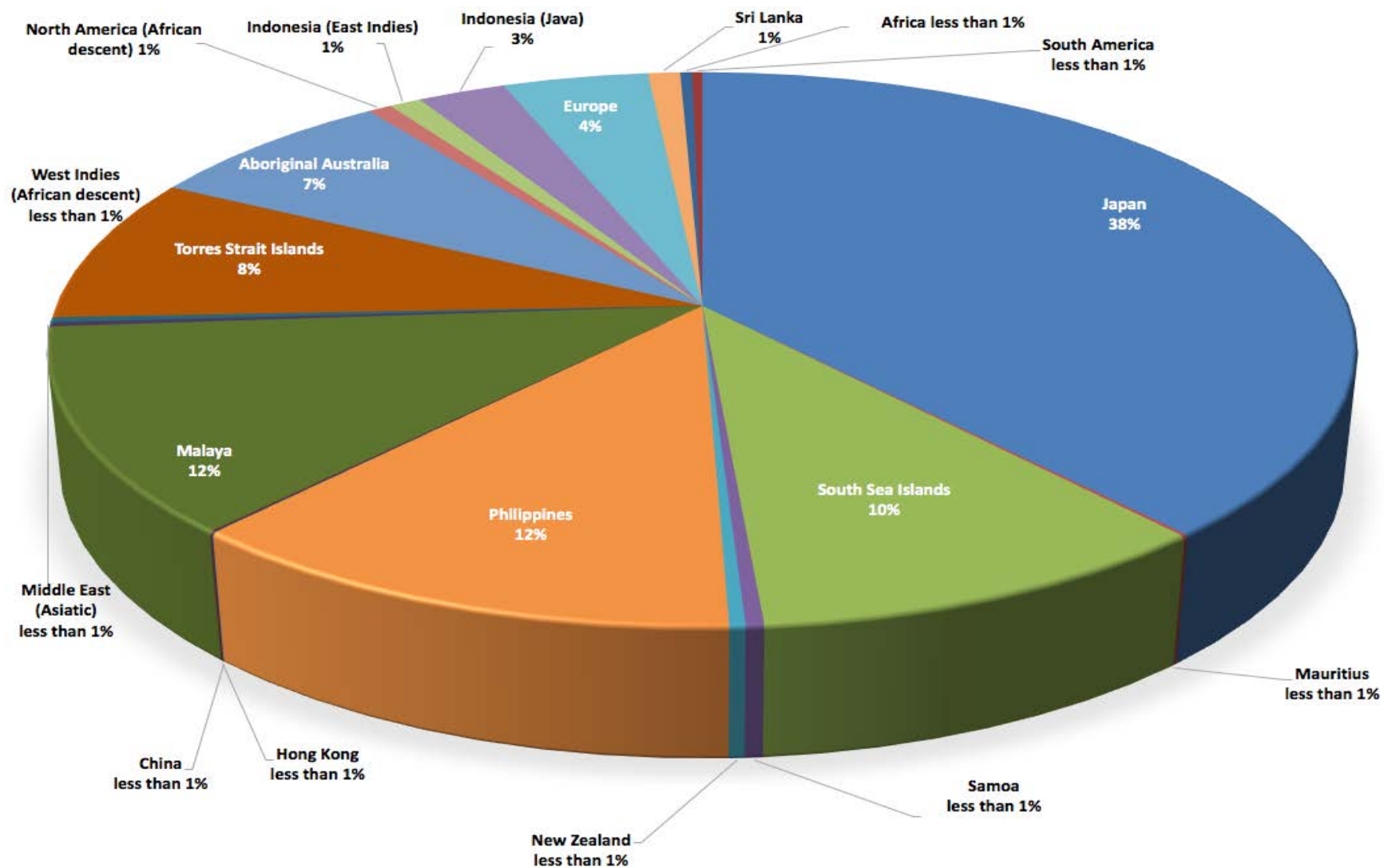


Chart 3.1 Nationalities of Men on Shipping Articles at Thursday Island for 1898, reflecting the descriptions of origins in John Douglas, "Report of the Government Resident at Thursday Island for 1898", QVP, 1, 1899, 92.

That these myths persist may reflect what Paula Hamilton has described as a lack of interest by historians in Australia's historical disasters,⁵ but they also appear to be examples of the selectivity of social memory as evidence is discarded, subsumed into or altered by more dominant European narratives. The persistence of myths can also be explained by their inclusion in popular forms of story-telling throughout the 20th century, especially in popular histories written as narrative non-fiction.

Finally, this chapter will consider why the evidence of the Aboriginal experience ashore appears to be limited. Ethnographer and Northern Protector of Aboriginals, Walter Roth, estimated in 1898 that there were more than 1,000 Aboriginal people living in the Princess Charlotte Bay hinterland and coastline, the area which the cyclone later devastated.⁶ Although the 1899 cyclone is remembered by Traditional Owners, there appear to be relatively few Aboriginal narratives associated with the disaster despite the large number of Aboriginal people who experienced it.

The death toll

There is evidence for 298 deaths during the cyclone that struck Cape Melville in 1899.⁷ (Deaths reported from injuries or suicide after the cyclone are not included in the toll, but are detailed later in this chapter). It is possible the death toll as a direct result of the cyclone exceeded 300, because Appendix 1 does not include deaths from two unidentified vessels, possibly the cutter *Ada* and lugger *Kotohira*, reported to have sunk in the Howick Group of islands. Although there is evidence that more than 69 vessels sank or ran aground, it is not clear where some vessels were at the time. It is, therefore, difficult to identify the two unnamed vessels in the Howick

⁵ Paula Hamilton, "Memory Remains: Ferry Disaster, Sydney, 1938", *History Workshop Journal* 1999, No. 47, 1999, 197.

⁶ Walter Roth, "A Report to the Commissioner of Police on the Aboriginals Occupying the 'Hinterland' of Princess Charlotte Bay Together with a Preface Containing Suggestions for Their Better Protection and Improvement", 30 December 1898, A/19899, QSA, ID1154345, ii. This is Roth's original hand-written report.

⁷ Appendix 1. The list shows 299 individuals, but includes two death certificates for one man, Marco Perez, master of the schooner *Admiral*, whose case will be considered later in this chapter and in Chapter Four.

Group described by an observer as sinking. It is also not clear how many people were aboard these vessels, and if any or all survived.⁸

Not all vessel owners reported deaths to authorities. Captain William Thompson of the *Meg Merrilies* described nine deaths, but these were not subsequently reported to the Cooktown Registrar of Deaths, Arthur Dean, nor the Marine Department.⁹ They are included in Appendix 1 because the evidence for the deaths associated with the *Meg Merrilies* fleet is considered credible by the methodology.¹⁰ None of the crew of the lugger *North Wales*, owned by William Hamilton, has a Queensland death certificate. Their names are listed among the dead by the Marine Department, but that list includes one crew member, Adriana, who survived. Appendix 1 reflects this evidence. Even allowing for unreported and unknown deaths from vessels known to have sunk or been wrecked during the 1899 cyclone, there is no evidence that 400 people died, as is claimed in official records today.¹¹ With credible evidence for 298 individual deaths, it remains Australia's deadliest recorded cyclone. A cyclone in Western Australia in 1887 is reported to have killed 220 people.¹² The passenger vessel *Koombana* sank between Port Hedland and Broome in 1912 during a cyclone, drowning an estimated 150.¹³ The 1918 Mackay cyclone is said to have killed 30 people and another cyclone in 1918, at Innisfail, killed as many as

⁸ George Bennett, "Return Giving Names and Nationality of Persons Belonging to Pearling Fleet Lost in Hurricane of 4th and 5th March, 1899, in Neighbourhood of Cape Melville", in T. M. Almond, "Report on the Marine Department for the Year 1898–1899", *QVP*, 3, 24 September 1899, 24; Anonymous 1899, 10. Although the Outridge booklet and the Marine Department in September 1899 both reported 54 vessels lost, Outridge's list does not include the lugger, *Kate*, nor the two New Caledonian vessels, *La France* and *Caledonia*. The Marine Department counted only vessels licenced for fishing, and so did not report the two New Caledonia vessels nor the lugger *North Wales*, which was passing through the area after having been sold. The best evidence shows 57 vessels lost in the disaster and a further 12 that sank or were grounded and later salvaged.

⁹ "The Late Hurricane. Return of the Warrego. Reports from the Boats", *Brisbane Courier*, 20 March 1899, 6.

¹⁰ Captain Thompson's statement, delivered by hand to the *Brisbane Courier* by the purser of the steamship *Warrego*, William Colvin, is considered by the methodology used in this thesis to be credible.

¹¹ Australian Institute for Disaster Resilience, "Cyclone Mahina 1899", *Disaster Resilience Knowledge Hub*, <https://knowledge.aidr.org.au/resources/cyclone-cyclone-mahina-cape-york-queensland> (accessed 7 February 2019). The website states: "It's estimated more than 400 people perished ..." It also states that the hub is managed on behalf of the Australian Government and "informs policy, planning, decision making and contemporary good practice in disaster resilience." A disclaimer notice on the website's Terms and Conditions, states that, "no claim is made as to the accuracy or authenticity of the content." However, in seeking contributions it states: "All submissions will be reviewed and verified before they are added to the collections."

¹² Mullins 2019, 89.

¹³ "Koombana Inquiry", *Hedland Advocate* (Port Hedland), 18 May 1912, 3.

87.¹⁴ In 1934, a cyclone is reported to have drowned 75 people aboard pearling fleets off Cape Tribulation,¹⁵ and 71 died in Darwin during Cyclone *Tracy* in 1974.¹⁶

The death toll for the 1899 pearling disaster has never been reviewed. In reviewing the death toll (see Appendix 1), I located several sources, including three major lists of fatalities: A Marine Department list that records 249 names,¹⁷ the Registry of Births Deaths and Marriages (QBDM) which lists 242 distinct individuals,¹⁸ and a list reproduced from the Cooktown Death Register, which shows 239 names.¹⁹ An inspection of the records of the Cooktown Register of Deaths and the register held by the QBDM in Brisbane was conducted.²⁰

Most of the names in the Registry of Deaths in 1899 were reported to the Cooktown Registrar by the managers of the company fleets and originated from the ships' articles of agreement, which outlined the employment contract between the fleet owners and the seamen. Following the disaster, a muster of surviving crews appears to have been held by the companies, and the names of those missing were supplied to the Thursday Island Shipping Master, George Bennett (who compiled a list for the Marine Department),²¹ and the Registrar of Deaths in Cooktown, Arthur Dean. The ships' articles included the names, ages and nationalities of those employed by the company fleets operating in the area of Princess Charlotte Bay and Cape Melville at the time of the cyclone. Although the names reported to both the

¹⁴ Australian Government, "Historical Impacts Along the East Coast", Canberra: BOM, <http://www.bom.gov.au/cyclone/history/eastern.shtml> (accessed 3 February 2017). Among the deaths during the 1899 Innisfail cyclone is John Martin Kenny, the Native Police officer who survived the 1899 cyclone at Cape Melville. In 1918, he was Superintendent of the Hull River Mission at what is now Mission Beach.

¹⁵ Ibid.

¹⁶ Don Withers, "Disaster Medicine in Australia: A National Perspective", *Australian Journal of Emergency Management*, 12, No. 2, Winter 1997, 39. Withers stated 65 deaths, but a further six were added to the death toll by Northern Territory coroner Greg Cavanagh in 2005.

¹⁷ Bennett 1899, 21–24.

¹⁸ Register of Deaths, Cooktown District — Cook, 1890–1901, QBDM, QSA, ID1273107. Permission was obtained from the Registrar General to view these records, which cannot be viewed by the public.

¹⁹ John Shay and Bev Shay, *The Greatest of All Cyclones Bathurst Bay 1899*, Cooktown, Queensland: Cooktown and District Historical Association, 1999, 35–40.

²⁰ Two copies of the registers of the Cook district, one kept in Cooktown and the other in Brisbane, are generally identical, the practice being for the registrar at the time to make two hand-written copies. Therefore, the list copied from the Cooktown register by Shay is not considered the best evidence. However, it does include an interpretation of the spellings of names that demonstrates the difficulty in translating the handwriting of the Cooktown Registrar, Arthur Dean.

²¹ John Douglas, "Report of the Government Resident at Thursday Island for 1898", *QVP*, 1, 1899, 100.

Marine Department and the Cooktown Registrar appear to have originated from ships' articles, the Marine Department list includes names that do not have death certificates, and some people with death certificates do not appear to have been reported to the Marine Department. The spellings of names often vary significantly between the lists as a result of errors of translation and transmission (as described in Chapter One).

Estimates of the death toll varied in the weeks following the disaster. In his report dated 13 April 1899, the Thursday Island Government Resident John Douglas put the loss of life at 250, attributing that figure to the Thursday Island shipping master, but noting the "difficulty in arriving at any accurate measurement of the loss of life" until the ships' articles were studied in full.²² The report of the Marine Department on 24 September 1899 estimated that "nearly 300 lives were lost," but listed 249 names, noting: "This return is only approximate, as it is possible some small boats with their crews may have been lost and the loss not reported to the Shipping Office, Thursday Island."²³ Many of the crews on small boats may not have had contracts.²⁴ As detailed in previous chapters, most accounts today of the disaster can be traced back to the Outridge booklet, published in September 1899. The booklet concludes that 307 members of the fleets died, including an estimate of "about 30" people who were in small boats not associated with the bigger company fleets.²⁵ The review of the death toll for this thesis, using the methodology, shows that figure to be reasonably accurate.

Between the two primary sources, the Marine Department list and the Cooktown death register held by the Queensland State Archives (QSA) for the Brisbane QBDM, there is a difference of seven names and the spelling of many names varies. It might be expected that the names on these lists would match each other, considering that they shared the same source, the ships' articles. However, many of

²² *Ibid.* The difficulty is not explained, but it may refer to the number of articles for each vessel, each listing a new intake of employees usually on contract for three years, with separate articles for South Sea Islanders. Douglas emphasised in his report that the laws relating to the shipment of seamen needed to be changed, alluding to difficulty in accessing the different sets of articles.

²³ Bennett 1899, 24.

²⁴ Walter Roth, "Report of the Northern Protector of Aboriginals for 1899", *QVP*, 5 1900, 4–5. Some small boat owners recruited Aboriginal men illegally for little or no wages. Others sometimes employed their own relatives, including women and children.

²⁵ Anonymous 1899, 10.

the men on the list were migrant workers, some illiterate, and many spoke little or no English. Names were written by hand into the ship's articles and many appear to have been interpreted phonetically. The misinterpretation of handwriting might have been compounded if the names were transmitted by telegraph between the ports where the articles were held to the Shipping Master at Thursday island and the Registrar of Deaths in Cooktown. There is evidence of multiple spellings for individual names in other Government documents. For example, there are four different spellings for Mayden, a 32-year-old illiterate Malay man who died in the cyclone (Figures 3.1 and 3.2).



Figure 3.1 “Moyden” written by two different people in one transcript of the Magistrate’s Court Thursday Island January 1899 (from “Assaulting one George Masta with Intent”, Thursday Island Police Summons Book/Sheet, 25 January 1899, PRV7022/1/2, QSA, ID6398).

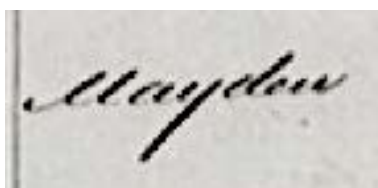


Figure 3.2 Mayden as written, in Death Certificate of Mayden, 5 March 1899, Queensland Births, Death and Marriages Registry, Cooktown, 1899/1219. This name has been interpreted as “Meydeu” in the Index to Queensland Deaths by staff at the QBDM.²⁶

Mayden, was a crew member of the lugger *Kate* in the fleet of the *Sketty Belle*, and the recording of his details is an example of the difficulty faced correctly identifying people and vessels. The *Kate* was registered to the fleet of George Smith’s brigantine *Sketty Belle*. Smith had replaced *Sketty Belle* with the schooner *Crest of the Wave* the year before the cyclone, but the *Kate* appears still to have been on the *Sketty Belle*’s books when the cyclone struck. This may explain why the *Kate* was not on the Outridge booklet’s list of vessels lost. The Thursday Island Magistrates Court records describe the trial on 25 January 1899 of three men — Mayden, Joe Harry and Ah Mat — who pleaded not guilty to assaulting George Masta two months

²⁶ “Index — Death registers L–R”, 1890–1899, QSA, ID2785668. The series notes: “These indexes were typed using the event information available at the time (one line per person).”

earlier.²⁷ The court documents, in which Mayden and most of the witnesses signed with a cross, show Masta was also spelt “Master.” Joe Harry from Rotumah is an Anglicised name or nickname. Ah Mat is one of three men with the same name who died during the cyclone (Appendix 1). All the men named in court were to perish two months after the trial, when the luggers *Kate* and *Vision* sank in Bathurst Bay.

Many of the floating stations were registered in Sydney in the colony of NSW and the crew signed up under foreign-going articles.²⁸ Few ships’ articles of the pearling fleets covering 1899 have been found, but the articles for the schooner *Aladdin* in the NSW State Archives provide an example and demonstrate how names can be misinterpreted.²⁹ These articles for the *Aladdin* represent a contract between South Sea Islander crew members and the fleet’s representative Edwin Munro (Figure 3.3).

SHIP'S ARTICLES OF AGREEMENT.

AGREEMENT No. _____
EXECUTED IN EIGHT PAGES.

Name of Ship.	Official No.	Port of Registry.	Port No. and Date of Register.	Registered Tonnage.	Nominal Horse-power of Engines.
'ALADDIN'	101086	Sydney	31/1893	101	27

MANAGING OWNER.		MAST		Distance in feet and inches between the centre of the Fore, showing the maximum load due to salt water and the upper edge of lines including the position of the ship's deck above that centre.	
Name.	Address.	Name.	No. of Certificate.	Feet	Inches.
Edward Munro	Brisbane	Shoo Bruce	2' Land 82	1	3

An Agreement, made in pursuance of the "Islanders Shipping Engagement Act," between *Edward Munro* the *Owner* of the

Schooner 'ALADDIN'

all of the Port of Sydney, New South Wales, of which vessel

the present Master,

and the several persons whose names are subscribed hereto.

It is agreed by the said persons, and they severally hereby engage to serve on board the said ship for the term of this Agreement in the several capacities set against their respective names, on a voyage - from the Port of Sydney, New South Wales, to

Torres Straits and Sydney and any port or place on the coast of North and South, and West Australia, Port Darwin, and the coast of New Guinea, and China Seas, and

	Bread.	Beef.	Flour.	Rice.	Tea.	Coffee.	Sugar.	Water.
	lb.	lb.	lb.	lb.	oz.	oz.	oz.	qts.
Sunday	1	1	1	1	1	1	1	1
Monday	1	1	1	1	1	1	1	1
Tuesday	1	1	1	1	1	1	1	1
Wednesday	1	1	1	1	1	1	1	1
Thursday	1	1	1	1	1	1	1	1
Friday	1	1	1	1	1	1	1	1
Saturday	1	1	1	1	1	1	1	1

Equivalent substitutes for all or any of the above may be issued at the Master's discretion, such as fat or pork for beef, yams or potatoes for flour, or rice, &c.
Lime or lemon-juice and sugar or other antiscorbatics to be issued according to law.

Figure 3.3 Details from “Ship’s Articles of Agreement: Aladdin”, Shipping Master’s Office, NRS 13280, Articles of Agreement of Crews 1898, 4/9408, NSW State Archives.

²⁷ “Assaulting one George Masta with Intent”, Thursday Island Police Summons Book/Sheet, 25 January 1899, PRV7022/1/2, QSA, ID6398.

²⁸ Departmental Commission on Pearl-shell and Beche-de-Mer Fisheries, “Report, Together with Minutes of Evidence and Proceedings, of the Commission Appointed to Inquire into the General Working of the Laws Regulating the Pearl-Shell and Beche-De-Mer Fisheries in the Colony”, Brisbane: Edmund Gregory, Government Printer, 1897.

²⁹ “Ship’s Articles of Agreement: Aladdin”, Shipping Master’s Office, NRS 13280, Articles of Agreement of Crews 1898, 4/9408, NSW State Archives.

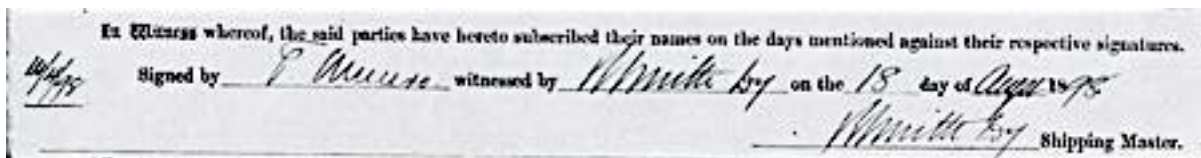


Figure 3.4 Edwin Munro's signature, witnessed four months after it was signed (from "Ship's Articles of Agreement: Aladdin", Shipping Master's Office, NRS 13280, Articles of Agreement of Crews 1898, 4/9408, NSW State Archives).

The articles signed by Edwin Munro spell his name "Edward" in a handwriting that does not match Munro's handwriting. This suggests that when he signed it on 14 April 1898, he did not fill the rest of the form in. He also appears to have signed the contract four months before his signature was witnessed in Sydney by the Shipping Master, on 18 August 1898. The practice may have been for Munro to sign blank articles so crew could be recruited when he was not aboard, and there appears also to be a practice of retrospectively witnessing a signature (Figure 3.4). The agreement was made under the NSW *Islanders Shipping Engagements Act* and covered only the 12 seamen from the South Sea Islands who joined the *Aladdin* fleet between August 1898 and January 1899 on a three-year contract.³⁰ Some of the crew joined the ship at Thursday Island and some in Sydney. Two, Jimmy Rotuma [sic], aged 19, and Timothy, aged 23, both from Rotumah, signed with a cross, and some of the signatures of the other crew are difficult to interpret (Figure 3.5). None of these crew members appears to have died in the cyclone, the *Aladdin* having reported no casualties, but the articles demonstrate how difficult it can be to interpret names from signatures on ships' articles.

³⁰ See Statutes of NSW, *Islanders' Shipping Engagements Act (1879 No 30a)*. <https://www.legislation.nsw.gov.au/acts/1879-30a.pdf>

Reference No.	PARTICULARS					
	Signatures of Crew.	Age.	Town or County where born.	Ship in which he last served.		Date and I th
				State, Name and Official No. or Port she belonged to.	Year.	Date.
1	2	3	4	5	6	
1	<i>W. Harze</i> <i>Purissone</i> Master to sign first.	28	Rotunah	Hippolas		15/8/98
2	<i>George Sando</i>	23	Paupo	First		12/10/98
3	<i>Caroline Morice</i>	33	Cape de Horn	Helena		13/10/98
4	<i>Willie Moker</i>	22	Loyalty	Lafetta		10/11/98
5	<i>George Meare</i>	25	New Caledonia	Tamais		14/11/98
6	<i>Jimmy + Rotunah</i>	19	Rotunah	Rotunah		20/1/99
7	<i>Timothy +</i>	23	do	do		"
8	<i>Enrico</i>	24	Rotunah	"		"
9	<i>Pere</i>	22	Rotunah	do		14/1/99
10	<i>Jake araki</i>	23	do	do		do
11	<i>Pere Tusa</i>	30	do	Minne Star		do
12	<i>Joe Suma</i>	35	Fiji	Lady St. Aubyn		5/1/99

Figure 3.5 Names written into "Ship's Articles of Agreement: Aladdin", Shipping Master's Office, NRS 13280, Articles of Agreement of Crews 1898, 4/9408, NSW State Archives.

After cross-referencing names of the dead from the Marine Department and the Death Register, and adding reports of deaths from other credible sources, I have compiled a list of 298 individual deaths (Appendix 1), including deaths ashore. This composite list is an interpretation of the names and not necessarily the names the men were born with or were known by in their own communities. It also considers omissions and duplications. For example, William Powell, the captain of the lugger *North Wales* who drowned in the cyclone, has no Queensland death certificate. (The death of a William Joseph Powell was recorded on 6 March, but the details show a baby.) On the other hand, Marco Perez has two death certificates. "Marcus" Perez

was reported dead by William Hayne, the manager of the *Crest of the Wave* fleet.³¹ The death of Marco Perez, the captain of that fleet's schooner *Admiral*, was also reported by Perez's wife, Maria.³² While other details on the death certificates differ, such as their ages, it is the same man from the same fleet and Perez's wife can be considered the more credible source. (Maria Perez reported the details directly, while the fleet manager Hayne transcribed them from the ship's articles.) This anomaly raises questions about whether there are other duplications and mistakes that cannot be so easily identified. For example, although Sugimoto is a common Japanese name, a diver named Sugimoto from the *Silvery Wave* fleet has a death certificate,³³ but another diver from the *Silvery Wave* fleet, also named Sugimoto, is reported to have survived the cyclone.³⁴ As already mentioned, the Marine Department recorded the name of Adriana from the lugger *North Wales* as drowning, but Adriana survived.³⁵

There is also evidence that other lists of names may exist overseas. Many of the young men who joined the fleets came from the same communities, and the large loss of life would have been felt keenly and remembered if or when details of the disaster reached their homes. John Lamb, a Canberra-based researcher of the Japanese in the Australian pearling industry, visited the town of Shionomisaki, in the prefecture of Wakayama, and was told that inside the Koshoji temple was a document listing eight men killed in a cyclone near Cooktown on 23 January 1899. As Lamb points out, the Lunar Japanese calendar was still being used even though Japan officially changed to the Gregorian calendar in 1871. In 1899, the Lunar New Year occurred on 10 February, and 23 days from that date was 5 March.³⁶ Until the document can be found, or there is corroborating evidence that places these men at the scene, their names cannot be added to the list. There are, though, strong links between the town of Shionomisaki, the Wakayama prefecture, and the Thursday Island pearling shelling industry. Most of the more than 300 Japanese men who

³¹ See Appendix 1.

³² Ibid.

³³ Death certificate of Sugimoto, 5 March 1899, QBDM, Cooktown, 1899/1161.

³⁴ Anonymous 1899, 32.

³⁵ Bennett 1899, 23.

³⁶ John Lamb, *Cape of Tides*, Canberra: John Lamb, n. d., 11. Lamb cites T. Ogawa, *Arafura-kai no shinju*, 1976, 47–48.

travelled to Thursday Island in 1892 and 1893 were from Wakayama prefecture.³⁷ Historian David Sissons suggests three reasons for the influx: A village system of sponsoring the young men with fares for steamship passages, the Japanese Foreign Ministry allowing them to leave Japan to earn wages, and a consortium of 10 Japanese on Thursday Island which won the 1890 Tattersall's sweepstake in 1890, when the racehorse *Carbine* won the Melbourne Cup. That consortium shared £22,500 prize money,³⁸ and at least four from Wakayama returned to the province wealthy men, sparking a mass exodus of young men from Shionomisaki village, particularly, to Thursday Island.³⁹

There is evidence for other deaths associated with the cyclone that may not have been officially reported to the Marine Department or the Registrar of Deaths. Five unidentified bodies were found eight months after the cyclone on Bewick Island by the survey ship, *HMS Dart*. The bodies were found about five kilometres from where two New Caledonian vessels, *La France* and *Caledonia*, with two Frenchmen and a crew of "six aboriginals and one Bengalee" were last seen.⁴⁰ The bodies found by the *Dart* were described in detail by Commander John Franklin Perry, in his report of November 1899, as being probably two Europeans, two Aboriginal men, and a Japanese man. (It cannot be assumed that the bodies were from the *La France* and *Caledonia*. Two men described as Aboriginal may have been the crew of the *Rattler*, which also sank nearby.) The men were buried on the island under a wooden cross on the western side of Bewick Island.⁴¹ On 9 March, four days after the cyclone, Captain Alfred Ernest King aboard the steamer *Victory* counted 13 bodies, "all Japanese", floating between eight and 10 miles (16 kilometres) southeast of Bewick (Howick No. 6) Island.⁴² Some of these may have been the Filipino crew of the *North*

³⁷ David Sissons, "Japanese in the Pearling Industry", *Queensland Heritage*, 3, No. 10, 1979, 12.

³⁸ *Ibid.*, 13. See also "The Melbourne Cup", *Argus* (Melbourne), 6 November 1890, 5. The syndicate leader was Nakagawa Tamiji, also known as Tommy Nakagawa and Tommy Japan.

³⁹ Sissons 1979, 13–15. See also Shuju Kyuhara and Yoshihoko Yabuuchi (trans.), "Remains of Japanese on Torres Strait Islands", manuscript held by the Historical Society, Cairns, 1977. A boarding house on Thursday Island was named Shionomisaki. Kyuhara has recorded 28 men from the Wakayama prefecture who were married on Thursday Island. "All the Japanese were compelled to repatriate to Japan in 1946. The remainders were only a few who had been naturalised as Australian nationals and who had have [sic] native wives."

⁴⁰ "The Late Hurricane. Return of the Warrego", 6.

⁴¹ "The Pearling Disaster. Discovery of five more bodies. Two white men", *Torres Straits Pilot*, 25 November 1899.

⁴² "The Cyclonic Disaster", *Morning Post* (Cairns), 22 March 1899, 3.

Wales, or the Japanese crews of the *Ada* and the *Kotohira*. These deaths have not been included in the list because it is unclear whether all or any of the bodies were from vessels that had already reported deaths.

There is evidence that people died in the days after the cyclone. On 25 March 1899, the *Torres Straits Pilot* on Thursday Island reported that “one man, who had to be sent to the hospital suffering exposure, has since died.”⁴³ There is also evidence that the cyclone took a severe psychological toll on survivors. On 3 April 1899, a 30-year-old South Sea Islander seaman named as Tommy Attanino, who was in the Thursday Island hospital, jumped from the town jetty and drowned.⁴⁴ H. G. Vidgen, the fleet manager on the schooner *Olive*, appears to have suffered post-traumatic stress.

As a result of his trying experience Mr Vidgen had a temporary breakdown in health and in 1900 he retired to the Cape York mainland at a place called ‘Piara’ near Somerset.⁴⁵

Vidgen recovered, however, and in 1911 went to work for Clark and Munro’s Celebes Trading Company in the Dutch East Indies.⁴⁶ Sugimoto, the only survivor of the schooner *Silvery Wave*, remained in hospital for at least two months.

Sugimoto suffered considerably from his exposure; he was sent to the Hospital at Thursday Island, but two months later had not quite recovered from the trying ordeal through which he had passed.⁴⁷

The police summons books from Thursday Island, from April 1899 until the end of that year, reveal cases of pearling crew suspected of being of “unsound mind.”⁴⁸ On 5 April 1899, the Thursday Island Magistrate’s Court heard the case of three men who had survived the cyclone, but who later refused to go aboard a surviving lugger of the *Silvery Wave* fleet, *Tarachio*. The Magistrate and Government Resident John

⁴³ “The Hurricane”, *Torres Straits Pilot*, 25 March 1899, 2.

⁴⁴ “Telegraphic Items”, *NQR*, 24 April 1899. Death certificate of Tommy Attinino, 5 March 1899, QBDM, Cooktown, 1899/4316.

⁴⁵ W. J. Gallegly, “An Anniversary and a Biography (an Account of Herbert Grahame Vidgen)”, *Bulletin of The Historical Society, Cairns, North Queensland*, February 1959, 4.

⁴⁶ Grahame Jardine-Vidgen in an email to Ian Townsend, 12 February 2019.

⁴⁷ Anonymous 1899, 32

⁴⁸ Thursday Island Police Summons Book/Sheet, 1899, PRV7022/1/2, QSA, ID6398.

Douglas ordered the men aboard, and that the fleet owners should give them clothing.⁴⁹

Despite the difficulty in identifying individual victims, there is no evidence that the dead number significantly more than the 307 estimated in the Outridge booklet. This raises questions about how the official death toll today came to be widely reported as 400.

The Aboriginal death toll

As mentioned in Chapter One, the *Disaster Resilience Knowledge Hub* is a disaster database for the Australian Government that “informs policy, planning, decision making and contemporary good practice in disaster resilience.”⁵⁰ Its entry for “Cyclone *Mahina*, 1899”, states that: “Over 100 Aboriginal people died trying to help the shipwrecked.”⁵¹ It quotes an article from *National Geographic* magazine that states: “It’s estimated more than 400 people perished when Cyclone *Mahina* hit Princess Charlotte Bay in March 1899,” a figure that includes 100 Aboriginal people.⁵² These figures are ubiquitous in media articles on the cyclone and are also quoted by other Government authorities such the Australian Bureau of Statistics.⁵³ The first mention of any local Aboriginal people ashore being killed in the cyclone was published on 15 March 1899, 10 days after the storm.

Several aboriginals on shore perished in the storm. The harbour-master at Cooktown has distributed bags of flour among the aboriginals.⁵⁴

This is attributed to the *Brisbane Courier’s* special correspondent, likely to have been the editor of the *Cooktown Independent*, James Fowler, who wired the report

⁴⁹ Ibid. The judgment is dated 4 April 1899.

⁵⁰ Australian Institute for Disaster Resilience, “Cyclone *Mahina* 1899”.

⁵¹ Ibid.

⁵² Ibid. See also Marina Kamenev, “Australia’s Worst Cyclones: Timeline”, *Australian Geographic* website, published online 2 February 2011, <https://www.australiangeographic.com.au/topics/science-environment/2011/02/australias-worst-cyclones-timeline/> (accessed 7 February 2019). The article states that there are stories suggesting “100 were local Aboriginal people.”

⁵³ Australian Bureau of Statistics, “150 Years of Queensland’s Economic History: Key Dates, Facts and Figures”, published online 23 February 2009, <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/1318.3Feature%20Article14Feb%202009> (accessed 10 February 2019).

⁵⁴ “The Late Hurricane. Cruise of the Warrego. Further Particulars. Reports of the Pearling Captains. The Estimated Loss of Life”, *Brisbane Courier*, 15 March 1899, 5.

from Cooktown to Brisbane on Tuesday 14 March. On 2 April, the Northern Protector of Aboriginals, Walter Roth, visited the scene of the disaster to distribute more flour and clothing, and to make a report for the Government (see Figure 3.6). Roth was a medical doctor who studied at University College School, London, and Magdalen College, Oxford, and he later became an internationally respected anthropologist.⁵⁵ In late 1898, Roth toured the Cape Melville region, and four weeks after the cyclone he returned to the area to distribute gifts to the Aboriginal people at Barrow Point, Bathurst Bay and Flinders Island; the people ashore most affected by the cyclone.

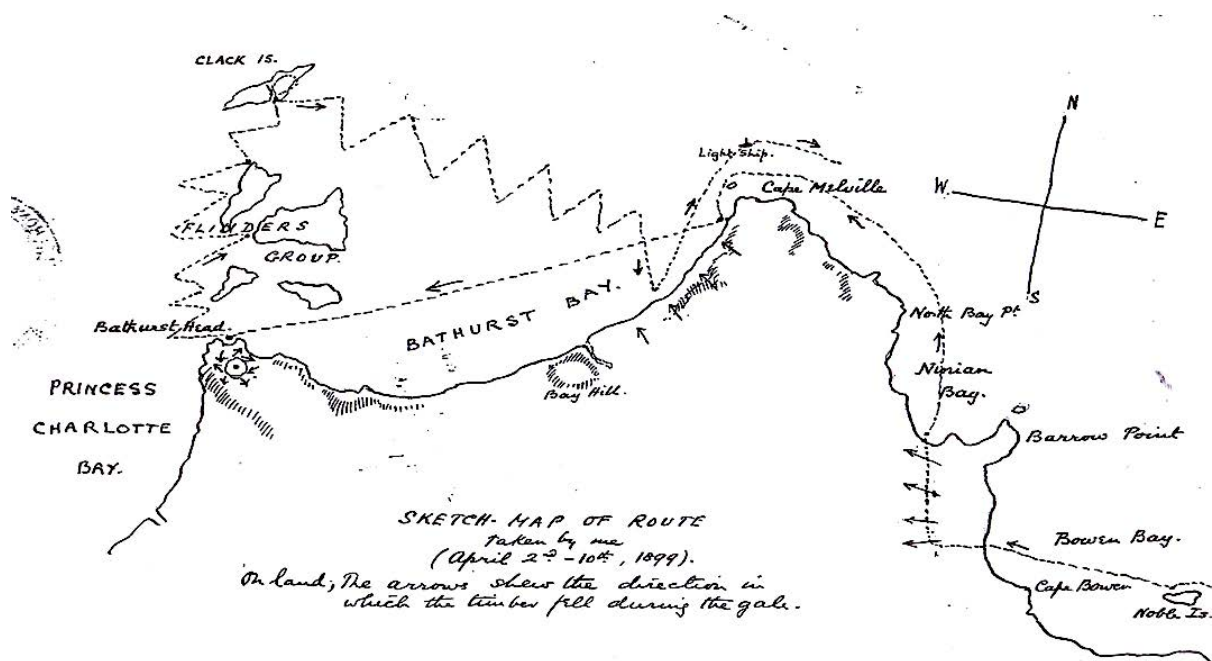


Figure 3.6 Roth's sketch map of his route to distribute gifts to Aboriginal people after the cyclone (from Walter Roth to Under Secretary Home Office, "Report Re Distribution of Gifts to Coastal Aboriginals", 9 April 1899, HOM/A23/99/5252, QSA, ID847561, 11).

On 3 April, he spoke to the Barrow Point people and reported: "There have been three deaths, attributable to the cyclone, among these Barrow Point blacks."⁵⁶ On 5 April, Roth came ashore in Bathurst Bay and "found upwards of 120 men, women, and children, waiting my arrival. I explained to them fully the nature of my mission, & thanked them for what they had done" (which was to help bury dead bodies as they

⁵⁵ Barrie Reynolds, "Roth, Walter Edmund (1861–1933)", *Australian Dictionary of Biography*, National Centre of Biography, Australian National University, <http://adb.anu.edu.au/biography/roth-walter-edmund-8280/text14509> (accessed 26 February 2015).

⁵⁶ *Ibid.*, 3.

were washed ashore). Roth reported no deaths amongst the Cape Melville people. On the western side of Bathurst Bay, at Bathurst Head, on 6 April, Roth met another group of Aboriginal people and stated: "There had been five deaths among this mob during the cyclone, 4 men and 1 woman having been crushed by falling timber."⁵⁷ That evening, Roth met people on Flinders Island, including a man he identified as Marmaru, who did not report anyone on Flinders Island having been killed.⁵⁸ Roth was accompanied on his trip by Constable John Martin Kenny, the Native Police officer who experienced the storm tide at the height of the cyclone, and several Native Police trackers, including a man named Euro, who came from the Normanby River inland from Cape Melville. Kenny and Euro between them spoke the languages of Bathurst Bay, Barrow Point and Flinders Island. As Protector of Aboriginals, Roth made inquiries specifically about Aboriginal deaths at sea.

I could get no reliable evidence of any aboriginal remains having been washed ashore, a fact which was somewhat confirmed on enquiry as none of the Cape Melville Boys are missing. Mr James Clark has lost but one aboriginal that he knows of, a Cape York Native named 'Dick Dead-Eye', a very old and faithful servant of his.⁵⁹

The Outridge booklet, however, published in September 1899, stated:

Some aboriginals from a camp near Cape Melville were assisting shipwrecked men out of the water. A change of wind or a sudden gust swept around the hills and blew the natives into the water. They struggled hard, but were unable to reach land again, and were driven out to sea and drowned.⁶⁰

P. P. Outridge, who can be identified as one of the authors of the Outridge booklet, had visited the scene several months after the cyclone, but it is unclear where this drowning could have occurred. Most of the vessels in Bathurst Bay did not sink until the early hours of Sunday morning. Before the eye started crossing the coast after 3 a.m., the hurricane force wind in Bathurst Bay was blowing offshore and any crew members in the water before that time would likely be swept away from shore. The Aboriginal people on shore were sheltering in the hills well away from the beach.

⁵⁷ Ibid., 7.

⁵⁸ Ibid., 8.

⁵⁹ Ibid., 6.

⁶⁰ Anonymous 1899, 35.

After the eye passed, the wind blew directly onshore with hurricane force, making it unlikely that anyone on the beach at Bathurst Bay could be blown against the wind into the sea. Outridge fails to mention Roth's report of eight Aboriginal people killed ashore, at least five by falling timber, but he may have heard about deaths ashore and speculated. The only previous reference is the *Brisbane Courier's* report of 15 March describing people ashore killed in an unspecified way. There is, however, one report of people drowning in the Wakooka Creek area. William Hamilton, captain of the schooner *Canomie*, which took Roth to the scene in April 1899, wrote in his journal: "The natives abreast of Noble Island and the Howicks report that they had to swim on to the high land several women and children being drowned about Barrow Point."⁶¹ Hamilton did not venture inland with Roth, but repeated many of the observations of Roth, who did go ashore and speak to the local people.⁶² Roth attributed three deaths of the Barrow Point people to the cyclone without saying how the people died, so it is possible they were women and children who drowned during the storm tide. However, neither Kenny nor Roth specified any such drownings, and Hamilton's second-hand report cannot be considered credible because he did not identify his source. The story in the Outridge booklet of a sudden gust of wind blowing people into the sea is also unsubstantiated, but was repeated in 1958 by meteorologist Herbert Whittingham, who used the booklet as his main source for reconstructing the path of the cyclone.⁶³ However, neither Whittingham, nor anyone else at the time, had reported the number of Aboriginal people drowning as 100, and no reference to that figure appeared until the 1970s.

It could reasonably be expected that such a significant part of the death toll would be mentioned by historians, authors, and journalists before 1971 if there was an earlier source.⁶⁴ The president of the Royal Historical Society of Queensland, Norman Pixley, did not mention it when he delivered his presidential address about

⁶¹ William Hamilton, "Account of Prospecting Voyages for Pearl Shell in New Guinea and the Solomons 1899–1901", 4, John Oxley Library, OM71-4, State Library of Queensland (hereafter SLQ).

⁶² Ibid. Hamilton described "mullet and rock cod" dead in "depressions" using similar words to Roth's description of "putrid mullet and rock-cod", but there is no evidence that Hamilton spoke to people ashore.

⁶³ H. E. Whittingham, "The Bathurst Bay Hurricane and Associated Storm Surge", *Australian Meteorological Magazine*, 23, 1958, 4–36.

⁶⁴ It could be speculated that there were other deaths ashore, but the methodology used in this thesis cannot be applied without evidence.

the pearling disaster at the society's annual meeting on 23 September 1971.⁶⁵ However, after 1971, reports that 100 or "about 100" Aboriginal people were swept out to sea either by a tidal wave or wind change began to appear in articles and books, including John Singe's 1979 book, *The Torres Strait: People and History*,⁶⁶ and Evan McHugh's 2003 non-fiction book, *Shipwrecks*.⁶⁷ The first reference to 100 Aboriginal people drowning appears in Hector Holthouse's popular narrative non-fiction book *Cyclone*, first published in 1971.

A final count of those who lost their lives was 307: twelve white men and 295 Asiatics and Islanders. This did not take into account about 100 Aborigines swept out to sea and others killed in the forest country.⁶⁸

In his book, Holthouse links this event to the storm tide observed by Kenny, writing that "the back surge from the wave which caught Constable Kenny" swept the 100 Aboriginal people away. Holthouse appears to have repeated sections of the Outridge booklet without acknowledging it and adding dramatic details for which there is no evidence. The first iteration of 100 Aboriginal people being swept out to sea and drowning appears in the corrections to the first draft of Holthouse's manuscript, held at the John Oxley Library.⁶⁹ The words "a considerable number of" are crossed out and replaced with "about 100" (Figure 3.8). The basis for the historical record today is this edit of a draft of Holthouse's *Cyclone* manuscript.

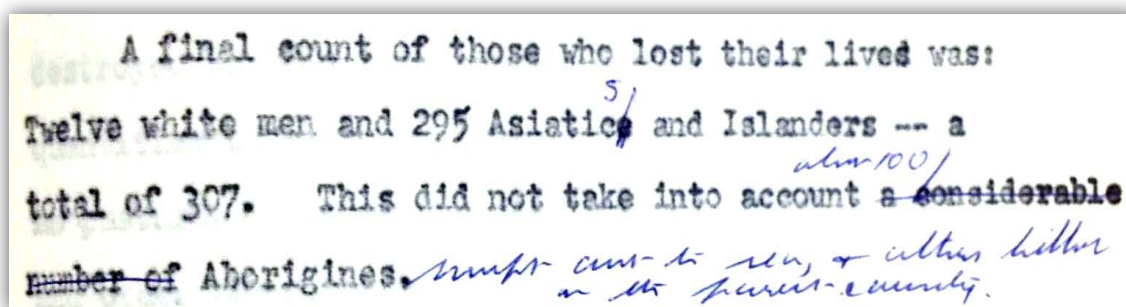


Figure 3.7 Holthouse's draft manuscript showing the edit that changed "a considerable number of" Aborigines to "about 100."

⁶⁵ Norman S. Pixley, "Presidential Address: Pearlers of North Australia: The Romantic Story of the Diving Fleets", *Journal of the Royal Historical Society of Queensland*, 9, No. 3, 1972, 9–29.

⁶⁶ John Singe, *The Torres Strait. People and History*, St Lucia: UQP, 1979, 165.

⁶⁷ Evan McHugh, *Shipwrecks: Australia's Greatest Maritime Disasters*, Camberwell, Victoria: Viking, 2003, 226.

⁶⁸ Hector Holthouse, *Cyclone*, Adelaide: Rigby, 1971, 13.

⁶⁹ Hector Holthouse, *Cyclone* manuscript draft, 34, in "Hector Holthouse scrapbooks, manuscripts and cuttings", John Oxley Library, M797, SLQ.

Holthouse wrote 30 books, most of them non-fiction dealing with Queensland history.⁷⁰ His first popular history book, *River of Gold*, written in 1967, is studded with dramatic interpretations of historical events. In the Author's Note at the beginning of the book, Holthouse writes:

Quotations from the letters, reports, and reminiscences of miners, carriers, Government officials, and others have been edited slightly to remove redundant material and make reading easier, and in places dialogue, based on the descriptive material, has been added, but in no instance has the original meaning been changed.⁷¹

Holthouse never identified what editing was done or what material was added, so there is no way to judge his claim that the editing of historical documents did not change their meaning. Holthouse qualifies his 1976 non-fiction book, *Ships in the Coral*, in a similar way in the Author's Note.⁷² There is no such qualification in his 1971 book *Cyclone*. However, as mentioned, the figure of 100 Aboriginal people swept or blown into the sea and drowned now appears in official government websites and scientific literature as data. Emergency services rely on historical data to prepare for future disasters. A death toll from any storm tide on the Queensland coast is a significant piece of evidence.⁷³ Holthouse invented the 100 Aboriginal dead, but the figure found its way into a Government database and, in 2012, a researcher at the Australian Maritime College used it as an example of the sort of data that could be fed into mathematical models to predict "storm surge risk under current and future climate conditions." The article describes how the 100 people may have been swept into the sea.

Many of these aborigines were drowned because *Mahina* blew in from the east and skimmed along the northward facing beaches of Princess Charlotte Bay. ... The population of synthetic cyclones can help model

⁷⁰ Geoffrey Ginn, "Holthouse, Hector Le Gay (1915–1991)", *Australian Dictionary of Biography*, National Centre of Biography, Australian National University, <http://adb.anu.edu.au/biography/holthouse-hector-le-gay-15850/text27049>, published online 2014, (accessed 17 January 2019).

⁷¹ Hector Holthouse, *River of Gold: The Story of the Palmer River Gold Rush*, Sydney: Angus and Robertson, 1967.

⁷² Hector Holthouse, *Ships in the Coral*, Melbourne: Macmillan, 1976.

⁷³ Lucinda Coates, "An Overview of Fatalities from Some Natural Hazards in Australia", *Conference on Natural Disaster Reduction 1996: Surfers Paradise, Qld*, Barton, ACT: Institution of Engineers, Australia, 1996, 49–54; Withers 1997, 39–41; Robyn Riddett, "Risk Preparedness and Cultural Heritage", *Historic Environment*, 16, No. 1, 2002, 6–11.

unexpected situations like this. No one could have thought Cyclone *Mahina* would have the outcome that it did.⁷⁴

The Flinders Islands, Bathurst Bay, and Barrow Point people, and the Guugu-Yimidhirr-speaking people south-east of Princess Charlotte Bay, are the traditional owners of the region. These groups spoke different languages and had different names for each other. Walter Roth identified the language used by the people living between Barrow Point and Cape Melville as Koko-nego-di (today described as Guugu-Nyiguudyi).⁷⁵ As mentioned in the previous chapter, the Guugu-Yimidhirr call the people from Flinders Islands, Cape Melville, and Barrow Point the Bama Yiidhuwarra.⁷⁶ Yiidhuwarra elder Daniel Gordon, a traditional owner of Flinders Island and a manager and ranger of the Cape Melville National Park that covers these areas, is the adopted son of Bob Flinders, who passed the story of the 1899 cyclone down to him. Daniel Gordon said some of the Flinders Island people were visiting Cape Melville at the time of the cyclone. They knew a cyclone was coming and all the people went into the Cape Melville Range to shelter.

DANIEL GORDON: ... the people from around Cape Melville area, Bathurst Bay, they were taking notice of the tides and they knew there was something wrong with the weather because the tide was unusual ... So they you know, they went through all this during the past, so they moved it into a higher ground. There's a shelter at Cape Melville where they all moved to.

IAN TOWNSEND: Is it like a cave or a ...?

DANIEL GORDON: Like cave, yeah.⁷⁷

After the cyclone, the people helped find and bury the dead pearlshells.

DANIEL GORDON: Ah, mostly Islanders and a few, I think, Aboriginals were on board, too. Most of them I think Islanders as well.

IAN TOWNSEND: There was a story I heard that's been told over the years about a group of 100 local people who were swept out to sea. Did Bob mention anything about that?

⁷⁴ "Tropical Cyclone Wave Modelling", *Shore to Sea*, Australian Maritime College, University of Tasmania, 1, July 2012, 37.

⁷⁵ Walter Roth, "North Queensland Ethnography, Bulletin No. 18", *Records of the Australian Museum*, 8, No. 1, 15 November 1910, 83.

⁷⁶ Peter Sutton, "The Flinders Islands and Cape Melville people in history", in Jean-Christophe Verstraete and Diane Hafner (eds), *Land and Language in Cape York Peninsula and the Gulf Country*, Amsterdam/Philadelphia: John Benjamins Publishing Company, 2016, 96.

⁷⁷ Daniel Gordon in an interview with Ian Townsend, 2 March 2015.

DANIEL GORDON: No, it was only the people who were working on the luggers.⁷⁸

Popular histories, such as Holthouse's books, tend to be narrative non-fiction, conforming to a type of story-telling that follows the conventions of a novel, and which often include references to contemporary social narratives, strong central characters, conflict, dialogue, and dramatic tension. As an author of non-fiction books set in Queensland, Holthouse was following in the footsteps of Australian authors Ion Idriess, Glenville Pike⁷⁹ and Frank Reid,⁸⁰ but might have been influenced in the 1960s by contemporary American writers of narrative non-fiction such as Norman Mailer, Truman Capote, Tom Wolfe and Hunter S. Thompson.⁸¹ As American author William Wiegand points out, "non-fiction implies a willingness to be held responsible for the data included as literally factual. The story actually happened."⁸² Narrative non-fiction, though, or what Truman Capote described in the 1960s as the "non-fiction novel,"⁸³ produces a tension between the need to tell a good story and an obligation to reflect the best evidence. Faced with contradictory evidence, for example, does the writer choose the best evidence or evidence that better supports the constructs of a novel? Narrative non-fiction, the "non-fiction novel," can have a powerful influence on social memory because, by seeking to be popular it is more likely to be read by more people than non-fiction that does not emulate a novel. As historian Paula Hamilton explains, "popular representations of the past have the potential to shape social memory, provide a mirror for it" and she notes that people more easily remember historical representations in popular culture.⁸⁴

⁷⁸ *ibid.*

⁷⁹ Julian Croft, "Idriess, Ion Llewellyn (1889–1979)", *Australian Dictionary of Biography*, National Centre of Biography, Australian National University, <http://adb.anu.edu.au/biography/idriess-ion-llewellyn-6786/text11739>, (accessed 25 April 2015); Glenville Pike, *My Yesterdays: Life of Glenville Pike in North Queensland and the Northern Territory*, Rockhampton: CQUP, 2007.

⁸⁰ Hugh Anderson, "Vennard, Alexander Vindex (1884–1947)", *Australian Dictionary of Biography*, National Centre of Biography, Australian National University, <http://adb.anu.edu.au/biography/vennard-alexander-vindex-8912/text15657>, (accessed 3 February 2019).

⁸¹ Lee Gutkind, "Creative Nonfiction", *Writer*, 117, No. 5, May 2004, 14–15.

⁸² William Wiegand, "The Non-fiction Novel", *New Mexico Quarterly*, 37, No. 3, 1967, 243.

⁸³ George Plimpton, "The Story Behind a Nonfiction Novel", *New York Times*, 16 January 1966, 38–43.

⁸⁴ Hamilton 1994, 18–20.

Holthouse, and other writers of narrative non-fiction since, sometimes warn the reader about their use of speculation as well as the uncertainty of historical evidence, while still suggesting what they have written is factual.⁸⁵ There is no convention for the use of historical evidence by writers of narrative non-fiction. How consistently a writer uses the best evidence, or relies on secondary sources rather than original research, varies from writer to writer. As Wiegand points out, any event “is nearly always altered and re-imagined when the suggesting and extending power of the novelist is sought for. Few writers with this object want to stick to all the facts.”⁸⁶

Historian Arthur Marwick warns historians to be “profoundly conscious that they should not be trying to emulate novelists or poets. Duties, of course, pertain to the historian, not history.”⁸⁷ Historians have a duty to history as scientists have a duty to science, but they can generally distinguish literature (including the non-fiction novel, which has a duty to literary forms and story-telling) from the scholarly non-fiction works of a professional historian or scientist. When using data for research, historians and scientists have a duty to interrogate the sources. Holthouse was not an historian, but a writer of popular history emulating the novelist. Although Holthouse may have misled the reader into believing the book was factual,⁸⁸ the obligation was not on Holthouse to write history, but on the reader, particularly if the reader is a scientist or historian, to distinguish the difference between history and historical literature before using the data.

Holthouse’s popular book became the source for a number of myths in the cultural memory of the 1899 disaster, including that 100 Aboriginal people were

⁸⁵ For example, John Bailey, *The White Divers of Broome: The True Story of a Fatal Experiment*, Sydney: Pan Macmillan, 2001, xiii. The introduction begins with a quote from Voltaire, “All ... history, as one of our wits remarked, is no more than accepted fiction.” Bailey then states, “... this story is true. I have created some scenes ... but they are based on research and primary sources.” Ian Townsend, *Line of Fire*, Pymble, NSW: Fourth Estate (HarperCollins), 2017. “This book is an attempt to collect the best evidence, hoping to approach the truth.” Robert Drewe, *The Shark Net*. Ringwood, Victoria: Penguin, 2003. “Memory may falter and portraiture is a highly subjective endeavor, but I have tried to tell a truthful story.”

⁸⁶ Wiegand 1967, 245.

⁸⁷ Arthur Marwick, *The New Nature of History: Knowledge, Evidence, Language*, Basingstoke, UK: Palgrave, 2001, 81.

⁸⁸ Holthouse 1971. In his Acknowledgements, Holthouse writes: “Descriptive material comes from contemporary newspapers and eye-witnesses,” but he does not list his sources.

washed out to sea and drowned by a storm tide that was “48 feet” (14.6 metres) high.⁸⁹ It was also instrumental in spreading another myth associated with the disaster; that an Erub (Darnley) Island woman on her honeymoon aboard the schooner *Silvery Wave*, rescued two white men and received a Royal Humane Society Gold Medal.⁹⁰

Moira Newi and the Pitt family of the Torres Strait

There are few narratives told by non-Europeans associated with the 1899 pearling disaster, although the Outridge booklet describes several European stories relating the Torres Strait Islander experience. However, after applying the methodology to these reports, these stories can be shown to refer to an event involving the family of Douglas Pitt Snr, who at the time lived on Darnley Island in the Torres Strait.

Douglas Pitt Snr was born on 31 January 1844 in Jamaica.⁹¹ He worked his way to Sydney in 1865,⁹² and in New Caledonia in 1869 married Sopa Wacando. Their children were Mary Ann Frances born 1869 in Noumea, William born 1871 on Mer Island, Edward born 1872 on Murray Island, Douglas Jnr born 1877 on Murray Island, Felicia born 1885 on Halfway Island, and Louisa born 1890 on Darnley Island. Douglas Pitt Snr is also said to have had a relationship with Sue (Wazan) from Murray Island, and their children were Robert Pitt born about 1879 and Annie (Wazan) born on Murray Island 1881.⁹³ William, Edward, Douglas Jnr, several relatives by marriage, some of their children, as well as Douglas Pitt Snr, were on boats near Cape Melville when the cyclone struck in 1899.

Douglas Pitt Snr had arrived in the Torres Strait in 1871 and settled on Murray Island, before being moved by the Queensland Government to Halfway Island and then Darnley Island after 1885.⁹⁴ The Outridge booklet in 1899 describes Douglas

⁸⁹ *Ibid.*, 7.

⁹⁰ *Ibid.*, 12.

⁹¹ George Pitt in an email to Ian Townsend, 16 August 2018.

⁹² Ancestry.com, “A List of Crew and Passengers Arriving in the ship *Strathdon*”, New South Wales, Australia, Unassisted Immigrant Passenger Lists, 20 January 1865. “Douglass [sic] Pitt, cuddy servant, 21, Jamaica.”

⁹³ George Pitt 2018.

⁹⁴ Stephen Mullins, *Torres Strait: A History of Colonial Occupation and Culture Contact 1864–1897*, Rockhampton: CQUP, 1994, 73–74. See also Anna Shnukal, “The Expulsion of Pacific Islanders from

Pitt Jnr, “with a Murray Island native and their wives”, swimming “11 to 12 miles” from Ingram (Howick No. 8) Island south of Cape Melville to shore, being “remarkable that the two native women were able to swim with the men, but no doubt the latter assisted their wives.”⁹⁵ Later, Outridge repeats a report originally published in the *Brisbane Courier*,⁹⁶ in which Porter, captain of the *Crest of the Wave*, describes “young Douglas Pitt, having been wrecked in the Howicks, had swum ashore with two native women, then swimming to Noble Island, and thence to the mainland, a marvelous performance, a distance of 10 miles.”⁹⁷ The Outridge booklet also described a separate report, in which five Murray Islanders swam “from outside Flinders Island towards Cape Melville, a distance of 12 miles.”⁹⁸ Outridge also elaborated on an earlier newspaper account,⁹⁹ describing two children drowning while being rescued by their mothers:

... two women, also of the Torres Strait Islands, who, with their husbands, were thrown into the water, when their small swimming boat sank and left them struggling for their lives. Each woman had a child on her back hanging on to her hair, and all through the night the devoted mothers were swimming trying to reach land. In the morning they reached Flinders Island, but alas the children had died from exposure during the night, and the mothers landed with the dead bodies.¹⁰⁰

Not mentioned in the Outridge booklet is the story of Moira Newi, who received a specially-struck Queensland Government medal for “meritorious and heroic conduct.” Her experience was described by Thursday Island Government Resident John Douglas:

Mohara, a girl of eighteen and unmarried, being in the company of two other women, her married relatives, and happening to be in a boat which foundered at sea at Noble Island to the south of Cape Melville, they all had to swim for their lives in a raging sea. Being expert swimmers they were able at last to reach the shore, after battling with the storm for many hours. Two of them — both married women — would certainly

Mer (Murray Island): Contemporary and Modern Interpretations”, *Oral History Association of Australia Journal*, 18, 1996, 79–83.

⁹⁵ Anonymous 1899, 34.

⁹⁶ “The Late Hurricane. Return of the Warrego”, 6.

⁹⁷ Anonymous 1899, 40.

⁹⁸ *Ibid.*, 35.

⁹⁹ “The Late Hurricane. Cruise of the Warrego”, 5.

¹⁰⁰ Anonymous 1899, 34.

have failed to do so, had it not been for the sustained assistance afforded them by Mohara.¹⁰¹

Mohara, Moara, Moura, and Muara are all ways of representing the pronunciation of Moira [mwara].¹⁰² Moira was born in 1884 on Erub (Darnley) Island,¹⁰³ the daughter of Harry Newi (also Niue) from Niue or Savage Island in the South Pacific, and his wife, Kakai. At the time of the 1899 cyclone, Moira was 15 or 16 years old and aboard Douglas Pitt Jnr's cutter, *Rattler*. Douglas Pitt Snr and his sons Douglas Jnr, Edward and William had brought seven boats south to the Cape Melville area to fish for pearl shell.¹⁰⁴ Other relatives of the Pitt family by marriage, including Charlie Lifu on the *Loafer* and Pedro Guivarra, originally from the Philippines, on the cutter *Francis*, were also on boats in the area. Anchored off Ingram (Howick No. 8) Island near the *Rattler* was the Pitt family cutter, *Daggie*.¹⁰⁵ The *Daggie* was to survive the cyclone, but the *Rattler* sank with 11 people aboard: Douglas Pitt Jnr, his wife Mary (known as Wassie), Mary's sisters Moira and Louisa Newi, their relative Geba (or Gebbie) from Masig (Yorke) Island,¹⁰⁶ Pitt's adopted son,¹⁰⁷ and his nephew William (Allam) Savage. The crew included Billy Cedar from Erub (Darnley) Island,¹⁰⁸ South Sea Islander Jimmy Ninn,¹⁰⁹ a Flinders Island man named Collin, and a Murray (Mer) Islander named Ikwam.¹¹⁰

There are several credible reports of what happened when the *Rattler* sank. All have been tested with the methodology. The witnesses are identified as are the

¹⁰¹ John Douglas, Government Resident Thursday Island, to Under Secretary, Home Office, "Bringing under Notice the Brave Conduct of a Girl at Darnley Island Named Mohara", 7 August 1899, HOM/A26, QSA, ID847564.

¹⁰² Anna Shnukal in a letter to Ian Townsend, 17 May 2006.

¹⁰³ Ibid. Dr Shnukal writes: "Moara or Moura or Muara or Mohara are all ways of representing the Torres Strait Islander pronunciation of Moira [mwara]." Before being married, Moira's surname was Newi or Niue, and after she was married she was known by her married surname Lifu or Wacando, having married William Wacando, originally from the island of Lifu. Names are often spelt in different ways in different documents, contributing to the difficulty identifying individuals. Where possible in this thesis, the more common or acknowledged spelling is used.

¹⁰⁴ Frank Illidge, "The Log of the Lally", *Northern Herald* (Cairns), 5 December 1923, 30.

¹⁰⁵ "The Late Hurricane. Return of the Warrego", 6. The boat is named *Dackle* in this article, but, as described in Chapter Two, this is an error of translation.

¹⁰⁶ Illidge, "The Log of the Lally", 30.

¹⁰⁷ Douglas Pitt Jnr is said to have adopted the son of his brother, Edward.

¹⁰⁸ Illidge, "The Log of the Lally", 30.

¹⁰⁹ Ibid.

¹¹⁰ A. C. Haddon (ed.), *Reports of the Cambridge Anthropological Expedition to Torres Strait*, Cambridge: University Press, 1, 1935, 112; Almond, "Report on the Marine Department for the Year 1898–1899", lists the name as Equam.

interviewers and although years had passed between the event and the interviews, the witnesses were at the scene and the interviewees can be identified and are considered credible sources with no motive to lie. Their reports can be shown to substantially corroborate each other, although details do vary.

The *Rattler* and the *Daggie* were anchored close to each other on the evening of 4 March. When the wind increased to hurricane force before midnight, the *Rattler's* anchor began to drag, pushing the cutter towards Bewick (Howick No. 6) Island, about five kilometres away.¹¹¹ In the early hours of 5 March, the anchor caught on the bottom and the force of the wind pushed the *Rattler* under the waves. The boat sank quickly, as Edward Pitt described to Police Magistrate Frank Illidge in an interview in 1923.

Douglas' wife handed the baby boy, four year old, to Douglas, and when the boat went down they swam. The crew were forward and disappeared. Douglas and the woman swam. and when one got tired the other helped them. Douglas tied the child to his back.¹¹²

The four crewmen forward vanished and were later reported to have drowned. The survivors appear to have been separated into two groups. In 1927, Ion Idriess, writing as Gouger in the *Bulletin*, published an interview with Moira Newi (then known as Moira Lifu, after having married). The interview may have taken place on Masig (Yorke) Island in the early 1920s:¹¹³

As Moira describes it: "The ship he go down an' th' wind tear our dresses off. But little dress underneath he cling close alla time 'cause the big waves wash him verra tight. My sister she no swim. She heavy woman; me on'y girl. She holdem hands on my shoulders, an' I swim an' swim an' swim. Seo an' Geba swim one side an' 'nother, an' try be strong an' brave. An' time pass verra hard, an' we fight, an' fight, an' fight."¹¹⁴

¹¹¹ Illidge, "The Log of the Lally", 30.

¹¹² Ibid.

¹¹³ Idriess "The White Man's Prestige", 8.

¹¹⁴ Gouger (Idriess), "Aboriginalities. Made in Australia", 27. In a letter assessing the article, Shnukal said: "Moira would have spoken roughly like the *Bulletin* article" as a first-language speaker of Pacific Pidgin English. Ion Idriess can also be placed on Masig (Yorke) Island and in the Torres Strait during that period.

It is not clear from Idriess's account if Seo and Moira's sister, Louisa, are the same person. Moira, Louisa/Seo and Geba swam in a group separated from Douglas Jnr, Mary, William Savage and the baby. In 1908, the former Southern Protector of Aboriginals, Archibald Meston, writing as "Wanderer" in the *Cairns Morning Post*,¹¹⁵ interviewed Douglas Jnr after the family was moved from Darnley Island to the Yarrabah Mission near Cairns.

Their boat foundered in the storm and Pitt, his wife and baby were left struggling in that whirl of wild waters. They bravely stuck to the little one, taking it in turns to carry it, and swam on for hours, till at last the child died of exposure, and they had to leave the body to the pitiless sea.¹¹⁶

Both parties swam for shore, about 19 kilometres (12 miles) from where the *Rattler* sank. Idriess writes that Moira, Louisa/Seo and Geba arrived ashore south of Barrow Point on Sunday evening.

An' sun he go down, an' wind blow us near the shore, an' sound he tell me waves he break on rocks, an' rocks he all sharp with oyster shell. An' I wait till one big wave roll an' break on rocks, an' then I push my sister an' scream, 'Swim! Swim!' An' she climb up in slack water jus' before nex' wave break. Then I push Geba an' she climb up. Then I push Seo an' she climb up. Then I wait, an' nex' slack water climb up myself, but never think I do it. I so near go down. An' all night we lie on rocks 'cause we so weak we no can move.¹¹⁷

Douglas Jnr, Mary, and William Savage, appear to have come ashore on Monday and met Moira, Louisa and Geba.¹¹⁸ At some point they were joined by Adriana, the sole survivor of the lugger *North Wales* who had been washed "up onto the bushes" on Sunday "about half way between Bowen and Barrow points."¹¹⁹ Adriana later described to William Hamilton walking for three days with the party of "4 women and

¹¹⁵ Meston can be shown to be "Wanderer" through his other columns, which described in detail his ascent of Mount Bellenden Ker, his age, and his close links to Atherton identities. Meston wrote columns for other newspapers under various names in a similar style.

¹¹⁶ Wanderer (Archibald Meston), "A Terrible Experience", *Cairns Morning Post*, 30 March 1908, 3.

¹¹⁷ Gouger (Idriess), "Aboriginalities. Made in Australia", 27.

¹¹⁸ Illidge, "The Log of the Lally", 30.

¹¹⁹ Hamilton "Account of Prospecting Voyages for Pearl Shell", 1899, 2–4. Hamilton said Adriana came ashore Sunday evening. The *North Wales* went down much closer to the coast than the *Rattler* and when Moira came ashore Sunday evening in the same area she was afraid of being cut by oysters. For Adriana to be washed "up on the bushes" and "high up on the land", it is more likely he came ashore with the storm tide in the dark on Sunday morning.

x [sic] men he met who were washed on shore from a cutter out at the reefs.”¹²⁰

After reaching Cape Melville, they appear to have been ferried by Porter to Flinders Island, where the surviving boats had anchored and tents had been erected ashore for shipwreck survivors.¹²¹ It was here that the family had the opportunity to tell their stories, before they were taken to Thursday Island. Those stories told on Flinders Island and to Porter appear to be the basis of what became different stories repeated in the Outridge booklet.

Descendants of the Pitt family who have been contacted are aware of the stories, but generally not the details. This follows a pattern similar to the descendants of other survivors and victims of the disaster (see Chapter Four). One member of the extended Pitt family in 1899, Pedro Guivarra, originally from Masbate in the Philippines and the husband of Annie (Wazan) Pitt, drowned when his cutter *Francis* sank during the cyclone. He left a wife and three children behind. His grandson Frank (Francisco) Guivarra described his knowledge of the event as being “fairly limited ... My father never talked about the effect of his father’s death on the family.”¹²² The role of trauma on memories of the cyclone will be discussed in the following chapter.

The making of a myth

The families who experienced the cyclone, particularly those who lost relatives, did not at the time have any control over what was reported in newspapers about their experiences. Generally, their stories were told by Europeans, and the Pitt family’s experience evolved into reports of three distinct events: A 10 to 12 hour swim by a group of Torres Strait Islanders to reach shore, two women who swam with dead children on their backs, and Moira Newi’s rescue of two white men from the sinking schooner *Silvery Wave*. All appear to be based on elements of the Pitt family’s experience, although it is likely other women on other boats had similar experiences. Two children from Murray (Mer) Island are listed as dead as a result of the disaster:

¹²⁰ Ibid. The manuscript has “4” and “x” added later with a question mark in the margin, but the numbers appear to represent Moira, Geba, Louisa and Mary, Douglas Pitt Jnr and William.

¹²¹ “The Late Hurricane. Return of the Warrego”, 6.

¹²² Frank Guivarra in a letter to Ian Townsend, 3 August 2018.

Felece, a two-year-old girl, and Pairo, a boy aged seven months.¹²³ Women were commonly used as divers on the fishing boats of Torres Strait Islanders because they were considered “better divers than the men” and “the best members of the crew” and it is not surprising that women would also have their children on boats in the area.¹²⁴

The first report, on 15 March, that two “coloured women swam for ten hours with children on their backs, but the children were dead when landed,” had been sent by telegraph to the *Brisbane Courier* from its “Special Correspondent” in Cooktown, most likely the journalist James Fowler, who was on the steamer *Warrego* which anchored at Flinders Island on 11 March.¹²⁵ On 12 March, about 30 survivors were sent on three luggers back to Thursday Island and the Pitt family was likely amongst them.¹²⁶ The story did not appear again until the Outridge booklet was published in September 1899, describing two Torres Strait women thrown into the water with their husbands, each with a child on her back “hanging onto her hair, and all through the night, the devoted mothers were swimming trying to reach land. In the morning they reached Flinders Island, but alas, the children had died from exposure during the night.”¹²⁷ When Holthouse repeated the story in 1971, he linked the Outridge version back to the Pitt family, with the two women “carrying her young child on her back clinging to her hair. When they reached land, both children were dead. They had died of exposure during the night.”¹²⁸

One of the persistent myths of the 1899 pearling disaster was the rescue of two white men by Moira Newi. In 1971, Holthouse wrote that “Muara” at the time had been married to Sammy Lifu and was on her honeymoon when she was washed off the schooner *Silvery Wave* in the dark. She “struck out for the shore more than two miles away.”

¹²³ Haddon 1935, 112.

¹²⁴ Ibid.

¹²⁵ “The Late Hurricane. Cruise of the *Warrego*”, 5.

¹²⁶ “The Late Hurricane. Further Particulars. Return of the Steamer *Warrego*. Loss of Life Estimated at 400”, *Brisbane Courier*, 14 March 1899, 5.

¹²⁷ Anonymous 1899, 34.

¹²⁸ Holthouse 1971, 13.

In the darkness, almost worn out herself by battling the huge seas, she encountered two injured white men clinging to each other and about to sink from exhaustion. In spite of her own weakness, she grabbed them both and, with their inert bodies partly supported on her shoulders and back, struggled on against the sea.¹²⁹

Brisbane playwright Charles Porter had earlier, in the 1930s or 1940s, dramatised Moira's experience, naming two white men she rescued as Johnny Adams and Paul Merrit:

NARRATOR: So began one of the most remarkable rescue feats ever performed. Supporting the two white men, Maura Lifu swam doggedly through the mountainous sea, heading for shore two miles away as time stood still.
EFX: Sound of wind and seas etc
MERRIT: Can't last — longer ... done.
MAURA: No, you alright!
ADAMS: Never make it ... shore too far away ...
MAURA: Maura can do!¹³⁰

The end of the radio play states: "The script was prepared by Charles Porter from the eye witness accounts in the files of the Historical Society of Queensland, incorporated." The suggestion is that it is based on evidence, but Johnny Adams and Paul Merrit did not exist. Charles Porter, a Brisbane playwright born in London in 1910, produced radio plays in the 1930s and 1940s, sometimes one a week, telling one journalist, "The radio drama can provide emotional and intellectual excursions beyond factual realms ..."¹³¹ The popularity of radio plays at the time meant many people heard this account and it became part of a social memory that was repeated by Holthouse in 1971. Holthouse was writing after the 1967 referendum in which Indigenous Australians won the right to be counted in the national census, and in 1971 Indigenous rights and histories were topics of national discourse. The myth of Moira's rescue of two white men falls into the racial construct of the "noble savage",

¹²⁹ Ibid., 9.

¹³⁰ Charles Porter, "The Pearling Fleet Disaster 1899", Brisbane: Australian Broadcasting Commission, n. d., BP257/1, 69/12, NAA.

¹³¹ "Radio Drama", *Daily Examiner* (Grafton), 30 August 1938, 8.

which romanticised Indigenous peoples and their coexistence with nature as well as their physical prowess.¹³²

The memories of the Aboriginal people ashore

The largest community affected by the 1899 cyclone was the combined Aboriginal peoples living along the coast near Cape Melville and in the hinterland of Princess Charlotte Bay. As mentioned, Roth reported the population of this region to be greater than 1,000. While the cyclone and its impact are remembered amongst Traditional Owners, few detailed memories remain, despite the large number of people ashore experiencing it.

On a field trip to Bathurst Bay, Cape Melville, and Wakooka Creek in September 2018, I travelled with Traditional Owner and Cape Melville National Park ranger Daniel Gordon. As previously described, Daniel Gordon is a Yiidhuwarra elder and the adopted son of Bob Flinders, whose country includes Flinders Island. Daniel Gordon has collected the stories, not just of Flinders Island, but from many of the people in the Cape Melville region, and he has taken on the responsibility of passing those stories on to younger people.

When the [1899] cyclone came in they were watching the tides because it wasn't a normal tide, it would come in a lot earlier and went back and came back in again and just kept on to and fro, and they knew what was happening, there was going to be a cyclone coming up, so they moved back into the caves, you know. Right back into the hillsides.¹³³

However, Daniel Gordon says many memories from that period have been lost because the country since 1899 has been “cleaned out.” Elders such as Bob Flinders and Roger Hart, born in the early part of the 20th century, who made efforts to recover memories and pass them on to others such as Daniel Gordon, had themselves as young children been “taken away from their homeland, taken

¹³² See Hayden White, *Tropics of Discourse: Essays in Cultural Criticism*, Baltimore: Johns Hopkins University Press, 1978, 183. White writes: “Few of the *topoi* of eighteenth century thought have been more thoroughly studied.”

¹³³ Daniel Gordon interviewed by Ian Townsend at Cape Melville, 25 September 2018.

away for years.” Later the old people who remained “were all taken away. This place was all cleaned out.”¹³⁴

The Barrow Point people, particularly, suffered a catastrophic population decline after contact with the fishing industry, reprisals for attacks on fishing stations and boats in the 1880s and 1890s, and the introduction of disease. The 1899 campsite of Constable Kenny, near the mouth of Wakooka Creek, shows signs of earlier habitation (Figure 3.8), with stone tools observed amongst shells scattered across a 300 metre length of flat ridge-top. A Traditional Owner of Barrow Point, Conrad Michael, described to Suzanne Falkiner a massacre by the Native Police at an Aboriginal camp at the mouth of Wakooka Creek, following attacks on fishing stations at Lizard and Barrow islands in 1881. He also described stockmen finding, “these heaps of bones at Wakooka — the people, they knew they were there. That was my father’s tribe.”¹³⁵ John Haviland and Roger Hart described a story in which, “survivors of a police rampage on a salt pan inland from mouth of Wakooka Creek came upon one of the native troopers abusing a local woman and killed him on the spot.”¹³⁶



Figure 3.8 Stone and shells at the campsite near the mouth of Wakooka Creek, on a ridge nine to 13 metres above sea level (photograph Ian Townsend).

¹³⁴ Ibid.

¹³⁵ Suzanne Falkiner and Alan Oldfield, *Lizard Island: The Journey of Mary Watson*, Sydney: Allen and Unwin, 2000, 118–120.

¹³⁶ John Haviland and Roger Hart, *Old Man Fog and the Last Aborigines of Barrow Point*, Bathurst: Crawford House Press, 1999, 36.

In the 1908 Royal Commission into the workings of the pearl shelling industry, Protector of Aboriginals and former pearl shell diver John Henry Schluter described a “rapid” decline in the Aboriginal population in that area.

They seem to die out very fast, but I do not know what the cause of it is. Year after year I notice that the numbers at the different camps are less.¹³⁷

Ship owner Ernest Evanson was more specific about the causes of a decline in the number of people in camps south of Cape Melville:

Ten or twelve years ago a big fleet of pearlers came from Thursday Island — some 100 or 150 boats — and disease was spread broadcast [sic] among the natives and they dropped off one by one.¹³⁸

The removal of children in the early 20th century to the Cape Bedford mission in the south, and the later removal of the surviving elderly population to places such as Lockhart River mission in the north, appear to have helped sever the continuity of memory and culture between the 19th and 20th centuries. Asked about Roth’s description of the campsites of the Barrow Point people and the Northern Road linking them, Daniel Gordon said few people would know. “No. There’s hardly any people to talk to about it.”¹³⁹ A Traditional Owner from Cape Melville, Alice Walker, said there were not many people left who would remember. “When the kids were brought here [to the missions] they weren’t allowed to talk about it.”¹⁴⁰ Haviland and Hart described how the Traditional Owners of Barrow Point, by the Second World War, “were mostly scattered through Aboriginal communities elsewhere in Queensland.”¹⁴¹ Anthropologist and linguist Peter Sutton described the “shattering cultural effects of the lugger trades and the cattle industry” and that the “depopulation by disease and abductions, were catastrophic ... By the 1970s only

¹³⁷ “Minutes of Evidence Taken Before the Commission 2 July 1908”, *Report of the Royal Commission Appointed to Inquire into the Working of the Pearl-shell and Beche-de-mer Industries*, Brisbane: Anthony J. Cumming, Acting Government Printer, 1908, 223.

¹³⁸ *Ibid.*, 238. Evidence taken 7 July 1908.

¹³⁹ Daniel Gordon to Ian Townsend, 25 September 2018.

¹⁴⁰ Alice Walker to Ian Townsend, 27 September 2018.

¹⁴¹ Haviland and Hart 1999, xv.

a few elderly people knew the old clanship details, and the country and its many sites and stories, for the area between Bathurst Head and Cape Bowen.”¹⁴²

Conclusion

The methodology described in Chapter One applied to a review of the death toll reveals evidence of 298 individuals known to have died in the 1899 pearling disaster. There is some indication of an unknown number of unreported deaths, but the death toll is unlikely to have exceeded significantly the Outridge booklet’s estimate of 307. There is no evidence that 400 people, including 100 Aboriginal people, died in the cyclone, despite this figure being the officially recognised death toll. There is evidence that the narrative non-fiction author Hector Holthouse added this figure to the toll in his book *Cyclone* in 1971.

Narrative non-fiction accounts and untested newspaper reports have not only contributed to the social memory of the disaster, but to unreliable data in official databases of the Australian Government, and in scientific research. This suggests that some scientists and other researchers misunderstand the nature of data in narrative non-fiction and journalism, and that there is a role for historians in reviewing databases that are based on historical records, particularly those of cyclones and other natural disasters. It cannot be assumed that the problems associated with data from the 1899 cyclone, revealed in this thesis, are repeated for every other historical cyclone, but the question should be considered.

Nearly all the narratives associated with the 1899 pearling disaster were controlled by the European community, even though 96 percent of the people in the fishing fleets at the time were non-European. Part of the problem with recovering non-European memories was the repatriation and emigration from Australia after Federation of most of the pearling crew members who survived the cyclone. However, there is surviving evidence that can dispel many of the myths associated with the non-European experience of the disaster. The recreation of the Pitt family’s experience reveals how myths have evolved in the media.

¹⁴² Sutton 2016, 95–96.

More difficult to recover are the memories of the Aboriginal communities who occupied the coast around Cape Melville and the hinterland of Princess Charlotte Bay. More than 1,000 people experienced the cyclone, but a catastrophic population decrease as a result of contact with the fishing industry, as well as the forced removal of children from their families and the removal of the surviving adults to missions in the early part of the 20th century, severed memories and clanship details. The 1899 cyclone was a small part of a bigger disaster resulting from contact with settlers and particularly the fishing industry. There is evidence that violence, disease, dispossession, and trauma resulted in fewer memories than might be expected from what was, at the time, the largest community to experience the cyclone.

The methodology provides better evidence for the 1899 pearling disaster and the non-European experience. The following chapter will elaborate on European social and political discourses, the actions of Queensland Government meteorologist Clement Wragge, and the role of trauma on how the disaster has been remembered.

CHAPTER 4

Forgetting a disaster: The role of politics, media, and trauma.

Those who clamour against the so-called 'alien' may do well to pause here and consider how vast they would have regarded the disaster if this tornado had swept away four hundred white men. Not only Queensland, but all Australia, and even all the nation, would have joined in a prolonged wail of sorrow at the awful disaster.

Telegraph (Brisbane), 14 March 1899¹

The previous chapters described the pearling disaster of 1899, comparing accounts in the Outridge booklet with earlier sources and revealing differing versions of events and data. This chapter examines what impact the cultural discourses of the time had on the collective memory of the disaster. Why did the pearling disaster slip from the collective memory while other Australian disasters, particularly cyclone *Tracy*, still resonate nationally? What makes one disaster an Australian tragedy and another not? The memory of the 1899 cyclone persists within some communities and families, but it remains largely outside wider national discourses of notable disasters.² Contemporary cultural narratives reflected in the media played important roles in framing the pearling disaster, and the Outridge booklet reflects that narrative framework. The booklet set out from the beginning its statement of purpose; to provide an account “of the Europeans who were lost,” which was compiled “from press and official reports, and from the testimony of survivors,” and available to “the immediate relatives of the deceased and to others interested.”³ It was produced as a memorial by a grieving family for other families of the European victims, and those who knew them. It was not produced to include narratives of the foreign crews or the Aboriginal people affected by the disaster, except as they reflected the European narratives. The booklet is a piece of journalism, and as White warns, the stories journalists tell should not be confused with historical narratives because such journalistic stories are already “locked within the confines” of a contemporary

¹ “Another Great Sorrow”, *Telegraph* (Brisbane), 14 March 1899, 4. In the weeks following the disaster, estimates of the death toll amongst the alien pearlers varied significantly.

² See for example, Australian Government, “Historical Impacts Along the East Coast”, Canberra: BOM, <http://www.bom.gov.au/cyclone/history/eastern.shtml> (accessed 3 February 2017).

³ Anonymous, *The Pearling Disaster, 1899: A Memorial*, Brisbane: Outridge Printing Company, 1899.

chronicle.⁴ The booklet is a reflection of its own intentions, a cultural narrative that lacks “secondary referentiality.”⁵ Nevertheless, the Outridge booklet has long been used by scientists as the primary source for information about the pearling disaster and the cyclone that caused it. The booklet and the newspapers that it reflected are evidence of the social discourses of the time and, as such, are responsible for much of what was to be forgotten and remembered about the pearling disaster.

The pearling disaster coincided with colonial plebiscites that anticipated a newly federated and White Australia, and so the first part of this chapter will consider how the media (including the Outridge booklet and newspapers) reflected and shaped social discourses of 1899. Barbie Zelizer reminds us that journalists are “the key agents of memory,”⁶ Nigel Hunt says that “memory and identities are also shaped by the media,”⁷ and Joy Damousi emphasises that “it is usually through the media that people get a sense of their own past.”⁸ Given this strong association between media and memory, how did the elements of racial and political discourse in 1899 affect the disaster narrative? In 1899, newspapers echoed myths, reinforced stereotypes, and promoted and exaggerated some accounts for narrative effect. This had an impact on the historical record because those reports were given quasi-official authority in the Outridge memorial booklet, produced by the Outridge Printing Company that not only had close ties to the pearling fleets, but at the time was an official printer for the Queensland Government.⁹ The Outridge booklet became the authoritative account for much of the subsequent reporting of the disaster for the next century. As Paula Hamilton notes, collective memory is a factor of structures of power in society and

⁴ Hayden White, *The Content of the Form: Narrative Discourse and Historical Representation*, Baltimore: Johns Hopkins University Press, 1987, 172.

⁵ *Ibid.*

⁶ Barbie Zelizer, “Why Memory’s Work on Journalism Does Not Reflect Journalism’s Work on Memory”, *Memory Studies*, 1, No. 1, 2008, 85.

⁷ Nigel C. Hunt, *Memory, War, and Trauma*, Cambridge, UK: Cambridge University Press, 2010, 120.

⁸ Joy Damousi, “History Matters: The Politics of Grief and Injury in Australian History”, *Australian Historical Studies*, 33, No. 118, 2002, 101.

⁹ James Clark also held shares in the Outridge Printing Company, which had contracts with the Queensland Government and municipal councils. See *Brisbane Courier*, 14 November 1899, 4; “State Printing”, *Telegraph* (Brisbane), 10 November 1900, 2; *Parliamentary Debates [Hansard]*, Queensland Legislative Assembly, Tuesday, 13 October 1903, 698.

power plays a role in the processes by which “some memories become erased, some emerge in the public arena, and some remain relatively privatised.”¹⁰

The second part of this chapter considers some of the other processes by which aspects of the disaster have been forgotten. The extent of the temporal and spatial distribution of media reporting is examined to consider the impact this had on collective memory. Finally, the role of trauma will be examined. South African novelist Andre Brink describes collective memory as being “constructed around its own blind spots and silences,”¹¹ and silences are symptoms of trauma, as well as social exclusion.¹² The trauma stemming from disaster is rarely documented, as American historian Dominick LaCapra explains: “It is more difficult to document psychic trauma or post-traumatic effects than it is to count numbers of dead or wounded.”¹³ Evidence does exist, however, of psychological trauma stemming from the cyclone and the case of Gustaf Fuhrman, the captain of the lightship who drowned during the disaster, reveals the generational impact of trauma on families and on memory.

The media and the aliens

The pearling disaster, on 4 and 5 March 1899, occurred during heightened political discourses about race. Queensland Legislative Assembly elections had started on March 1 and were to continue across the colony until 25 March 1899. The Australian colonies were also in the midst of a series of referenda on Federation, with the Queensland referendum to take place in September of that year.¹⁴ As discussed in Chapter One, a significant issue that spanned all plebiscites in 1898 and 1899 was the anticipation of a White Australia. The newspapers’ coverage in March 1899 of the

¹⁰ Paula Hamilton, “The Knife Edge: Debates about Memory and History”, in Kate Darian-Smith and Paula Hamilton (eds), *Memory and History in Twentieth-Century Australia*, Melbourne: Oxford University Press, 1994, 20.

¹¹ Andre Brink, “Stories of History: Reimagining the Past in Post-Apartheid Narrative”, in Sarah Nuttall and Carli Coetzee (eds), *Negotiating the Past: The Making of Memory in South Africa*, Cape Town: Oxford University Press, 1998, 37.

¹² Tessa Morris-Suzuki, “Collective Memory, Collective Forgetting: Indigenous People and the Nation-state in Japan and Australia”, *Meanjin*, 53, No. 4, 1994, 610.

¹³ Dominick LaCapra, *Writing History, Writing Trauma*, Baltimore: Johns Hopkins University Press, 2001, 11.

¹⁴ Voting in the 1899 Queensland election was held at different times for different places between March 1 and 25. The constitutional referendum in Queensland was held on 2 September 1899.

pearling disaster was to be framed by these political debates featuring racial discourses. The labour movement in Queensland, for example, was hostile to “coloured aliens,” who represented an economic threat to white labour.¹⁵ In the election for the Queensland seat of Woolloongabba in March 1899, Labour party candidate Thomas Dibley’s supporters yelled, “We don't want no black labour,” “We are for a white Australia,” and “No Kanakas.”¹⁶ Candidates such as Fred Brodie, an Independent Ministerial party candidate for Carpentaria, expressed Federation in terms of the benefits for the British race. Brodie declared that, “with federation in the colonies federation with the whole Anglo-Saxon race would eventually follow, and the question of coloured labour would be dead for ever. Australia would then become a white Australia.”¹⁷ These sentiments were reflected widely in political discourse. At the Australasian Federation Conference of 1898, colonial delegates had been careful in choosing the words with which laws would be constructed that would restrict the rights of “coloured” labour to work in a newly federated Australia.

MR. HIGGINS (VICTORIA): I would suggest the following words: There shall be no discrimination by state laws based on residence or citizenship in another state. That would attain the purpose exactly, and it would allow Sir John Forrest at the same time to have his law with regard to Asiatics not being able to obtain miners' rights in Western Australia. There is no discrimination there based on residence or citizenship; it is simply based upon colour and race. ...

MR. WISE (NEW SOUTH WALES): If you had a colony like Northern Queensland, where coloured labour is employed, you could not exclude them.

MR. HIGGINS: That would not be a discrimination based on residence or citizenship in another state.

MR. WISE: It might be.

MR. HIGGINS: No, it would be based on colour. We want a discrimination based on colour.¹⁸

As discussed in Chapter One, a unifying force for Federation was the desire to create a White Australia, but for the white pearling fleet owners, foreign labour was

¹⁵ Marilyn Lake and Henry Reynolds, *Drawing the Global Colour Line*, Cambridge: Cambridge University Press, 2008, 32.

¹⁶ “The Elections”, *Brisbane Courier*, 20 March 1899, 5.

¹⁷ “Australian Federation”, *Brisbane Courier*, 22 March 1899, 55.

¹⁸ Australasian Federation Conference, Third Session, Melbourne, Parliament of Australia Parliamentary Library, 3 March 1898, 1801, <http://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;adv=yes;orderBy=customrank;page=0;query=third%20session%20Dataset%3Aconventions;rec=9;resCount=Default> (accessed 20 March 2019).

an economic issue and it posed a dilemma. On one hand, a consortium of white businessmen led by James Clark had been pushing hard to stop competition from the “coloured aliens,” especially the Japanese, in the northern pearl shell industry.¹⁹ (The Queensland Government had passed a bill in December 1898 amending the *Pearl Shell and Beche-de-mer Fishery Act 1881* to prevent aliens from leasing pearl shelling boats.²⁰ It was aimed at curbing the perceived Japanese attempt to take over the industry, but it was applied to all who were not “natural born or naturalised British subjects” because the British Government, an ally of Japan, insisted.)²¹ On the other hand, the industry could not operate as profitably without cheap foreign labour. The pearl shellers opposed the employment of European divers on the grounds that white men were not cut out for the job. As James Clark pointed out, “Whites will not engage in the fishery; the life is too monotonous.”²² In fact, white divers were expensive, paid at least five times what a Manilla (Filipino) diver made.²³ The pearling fleet owners needed alien labour, but resented alien competition.

The discourse on race and labour in newspapers reflected one of the major political issues of 1899, and it was inevitable that the pearling disaster would become conflated with the White Australia narrative, as happened when the *Brisbane Courier* published its editorial opinion on 20 March 1899:

Those who would have diving carried on wholly by white men may now perhaps see what an awful blow would have been dealt to Queensland had four hundred families in our midst been sorrowing for loved ones lost.²⁴

The historical context of the word “alien” is important here. It appeared widely in pre-Federation newspapers and in 1899 already had a social meaning best understood through theories of semiotics as it applies to social and political discourse, and

¹⁹ Regina Ganter, *The Pearl-Shellers of Torres Strait: Resource Use, Development and Decline 1860s–1960s*, Melbourne: Melbourne University Press, 1994, 106; Stephen Mullins, “From TI to Dobo: The 1905 Departure of the Torres Strait Pearl Shelling Fleets to Aru, Netherlands East Indies”, *The Great Circle: Journal of the Australian Association for Maritime History*, 19, No. 1, 1997, 33; Robert Lehane, *The Pearl King*, Brisbane: Boolarong Press, 2014, 141.

²⁰ “Queensland Parliament. Legislative Siftings”, *Worker* (Brisbane), 24 December 1898, 3.

²¹ Ganter 1994, 106.

²² Lehane 2014, 142. Lehane details a letter from James Clark to the president of the Queensland Protection League, John Crase, 6 June 1898.

²³ Ganter 1994, 29.

²⁴ “Further Light on the Hurricane”, *Brisbane Courier*, 20 March 1899, 4.

therefore journalism.²⁵ The use of the word “alien” as a symbol helps to understand the disaster in terms of pre-existing myths regarding race (just as the use of the word “hurricane” will be later shown to reveal the role of nature in disaster within contemporary, pre-Federation, cultural discourses). In 1899, an Australian nation was not yet real, but anticipated, and it can be considered within the theoretic framework described by Benedict Anderson as an “imagined community” whose members conceive of themselves as being part of the nation “regardless of actual inequality and exploitation that may prevail in each.”²⁶ The members of the imagined Australian nation, though, were to be white. “Coloured aliens” were to be excluded.

This begs the question; what constitutes a national disaster in an imagined nation? If the victims are not considered to be members of that nation, it is difficult to frame it as a national disaster. For example, in considering why cyclone *Tracy*, which struck Darwin in 1974, was framed as a national disaster, Brad West concluded that there was a clear association between cyclone *Tracy* and the idea of what it was to be an Australian. The victims of *Tracy* were considered without question to be Australian. The disaster was also framed as a quasi-military event because the Australian military took control of relief efforts, and this linked it to the ANZAC myth, an existing core element of national identity since the First World War.²⁷ The 1899 cyclone, on the other hand, had been framed as a disaster in which most of the victims were clearly not to be part of an imagined Australian nation. Likewise, in the US in 2005 hurricane *Katrina* failed to gain immediate recognition as a national American tragedy because the media framed the victims as refugees who, like the non-European pearling crews, were “a highly racialized and classed category that constitutes the antithesis of citizens.”²⁸

²⁵ Roland Barthes, *Elements of Semiology*, Annette Lavers and Colin Smith (trans.), New York: Hill and Wang, 1968, 11.

²⁶ Benedict R. Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, London: Verso, 2006, 6–7.

²⁷ Brad West, “Mythologising a Natural Disaster in Post-industrial Australia: The Incorporation of Cyclone Tracy within Australian National Identity”, *Journal of Australian Studies*, 24, No. 66, 2000, 200.

²⁸ Courtney J. Rivard, *Archiving Disaster: A Comparative Study of September 11, 2001 and Hurricane Katrina*, PhD thesis, University of California, 2012, 46.

The pearling disaster also brought together two symbolic enemies of White Australia: The alien and the hurricane.²⁹ The word “hurricane” had been used connotatively in social discourse, but after the pearling disaster it was often used to represent the turmoil of politics in association with Federation, for example, “... the wretched, willful misrepresentation of facts which had, like a hurricane, swept across the colony,”³⁰ “I was standing on safe ground — on a rock — which all the hurricanes of oratory or the whirlwinds of special pleading cannot assail,”³¹ and “... if this federal furore has taught them any thing, it must surely have taught them the true worth of the hurricanes of shoddy patriotism which have assailed them.”³² The pearling disaster occurred at a time when social and political discourse was heavy with symbolism, and it became a symbol itself, not of a new white Australian nation, but of the soon to be outdated colonial industrial structure that employed foreign labour.

Clement Wragge and the literary narrative

The use of signifiers was also a journalistic tool of the Queensland Government meteorologist Clement Wragge. In naming tropical disturbances, Wragge had stumbled across a powerful narrative device to help him attract public attention to his forecasts. In the case of the tropical disturbance *Mahina*, which he was later to blame for the pearling disaster, the name was both alien, “culled from fair Tahiti,”³³ and the source of a hurricane. (It was also female, and Wragge has been credited for the convention of giving tropical storms female names, but he did not use female names exclusively.³⁴ *Nachon*, the tropical disturbance he named at the same time as *Mahina*, is also heavy with symbolism.³⁵ *Nachon*, from the *Bible*, was the male owner of the thrashing-floor where Uzzah was killed.)³⁶ The symbolic use of the hurricane and the alien was established before the disaster, in journalism, and in

²⁹ See “Ancient and Modern”, *NQR*, 1 May 1899, 4. This is one example where the words “alien” and “hurricane” were brought together to disparage politicians, in this case in a poem.

³⁰ “Political Situation”, *Clarence and Richmond Examiner*, 18 April 1899, 5.

³¹ “The Federal Constitution”, *Worker* (Wagga), 17 June 1899, 2.

³² “Patriotic Pilly-Winky Popp”, *Armidale Chronicle*, 21 June 1899, 2.

³³ “The Weather”, *Telegraph* (Brisbane), 7 March 1899, 4.

³⁴ Peter Adamson, “Clement Lindley Wragge and the Naming of Weather Disturbances”, *Weather*, 58, No. 9, September 2003, 359.

³⁵ “The Weather. Monsoons *Nachon* and *Mahina*”, *Telegraph* (Brisbane), 8 March 1899, 3.

³⁶ 2 Sam. 6:6 AV. “And when they came to Nachon's threshingfloor, Uzzah put forth his hand to the ark of God, and took hold of it; for the oxen shook it.”

literature. Their use connotatively, and often together, appeared in popular books such as Herman Melville's *Moby Dick*, Robert Louis Stevenson's non-fiction narrative *A Footnote to History: Eight Years of Trouble in Samoa*,³⁷ as well as Australian newspaper serials by writers such as Louis Becke, who wrote stories set in the dangerous, romantic, and thrilling tropics.

The native crews, knowing well the danger that menaced them, bent to their oars with a will, and sent the boats flying through the water. Already they could tell from the changing sound of the surf beating upon the outer reef that there was but little time left ere the hurricane would be sweeping across the now glassy waters of the lagoon ...³⁸

David Arnold coined the term "tropicality" to discuss the way in which the tropics, like the Orient, was described in colonial and post-colonial discourse as a region that was both inferior to Europe and dangerous, but also romantic and paradisiacal.³⁹ Tropicality is a term that can be applied to a genre of colonial literature, serving to construct a northern part of Australia as alien and remote from most of the white Australian population living in the more temperate south-east of the continent. Wragge, who was to later write his own narrative non-fiction book, *The Romance of the South Seas*, tapped into the literary sentiments of the day and used the same stylised and symbolic language in his published forecasts. Two weeks before the pearling disaster, on 24 February 1899, Wragge wrote that a tropical disturbance he had named *Tirau* was 300 miles north of New Caledonia, "a very sword of the hideous Damocles, involving fear, apprehension, and soul-stirring misgiving ... Still, however, do we distinctly affirm that the Queensland coast is not yet in danger."⁴⁰

By personifying tropical storms and using all the symbolism of tropicality in colonial discourse, Wragge had tapped into a popular narrative strategy, one that was readily recognised by newspaper readers. By naming storms, he gave them the power of

³⁷ Herman Melville, *Moby Dick: Or, the Whale*, London: Penguin, 2003; Robert Louis Stevenson, *A Footnote to History: Eight Years of Trouble in Samoa*, London: Cassell and Company, 1892, available at <https://archive.org/details/afootnotetohist03stevgoog> (accessed 20 March 2019).

³⁸ Louis Becke, "In Search of a Husband. A Tale from the Coral Islands", *Cobram Courier*, 18 November 1897, 2.

³⁹ David Arnold, *The Problem of Nature: Environment, Culture and European Expansion. New Perspectives on the Past*, Oxford: Blackwell, 1996, 143. "Tropicality was the experience of northern whites moving into an alien world ..."

⁴⁰ "The Weather", *Telegraph* (Brisbane), 24 February 1899, 8.

characters in a narrative. This transformed his forecasts into a version of narrative non-fiction in which the author appears also as a character. Wragge's forecasts were driven by his sense that a narrative with a beginning, middle and end already existed in nature. This philosophy is alluded to when he describes "the inflexible laws of the Great Master Energy" and that "no-thing in Nature is left to chance, and, scientifically speaking, there is no such thing as accident."⁴¹ This may have also prompted him to revise his forecasts for the 1899 disaster after the fact. As described in Chapter Two, Wragge had been monitoring the tropical disturbance he named *Tirau* before the cyclone struck the pearling fleet at Cape Melville. The vessels anchored in Bathurst Bay became aware of an approaching cyclone on the evening of Saturday 4 March, when their barometers began to fall, but 1,800 kilometres south, in Brisbane, Wragge was not to learn of the disaster until five days later. Wragge's barometric chart (Figure 4.1) dated Saturday 4 March, before the cyclone struck that night, showed a broad area of low pressure over the Louisiades, by then marked "Disturbance 'Mahina'."⁴² *Mahina* had superseded *Tirau*, perhaps reflecting Wragge's willingness to change his narrative rather than admit he had placed *Tirau* too far south. *Mahina* did not appear in Wragge's newspaper forecasts until Tuesday 7 March when, reflecting his 6 March weather map (Figure 4.2), he described it as being "about 350 miles [about 560 kilometres] south-east from Sudest," an island in the Louisiades Archipelago in British New Guinea.⁴³ In his 8 March forecast, published 10 March, he placed *Mahina* "300 miles [about 480 kilometres] south from the Louisiades,"⁴⁴ still out in the Coral Sea and on 9 March Wragge, still unaware of the disaster on Cape York, placed *Mahina* 400 miles (about 645 kilometres) east-north-east from Townsville and moving south.⁴⁵ Wragge was not to learn that a cyclone had crossed the coast until 10 March.⁴⁶

⁴¹ "Mr. Wragge's 'General Remarks'", *Brisbane Courier*, 10 March 1899, 5. Wragge was also to espouse his philosophy in a lecture tour in 1910 entitled "The Romance of the Atmosphere", described in the *Argus* (Melbourne), 11 August 1910, 10.

⁴² Clement Wragge, "March 4th 1899," copy of map courtesy Jeffrey Callaghan, BOM, Brisbane, in 2006. It is now at BP57/40, 3/19/1, NAA.

⁴³ "Meteorology of Australasia and Oceania", *Brisbane Courier*, 7 March 1899, 3.

⁴⁴ "The Weather", *Week*, 10 March 1899, 24.

⁴⁵ "Mr. Wragge's 'General Remarks'", *Brisbane Courier*, 10 March 1899, 5.

⁴⁶ Clement L. Wragge, *Wragge's Australasian Almanac and Weather Guide for Land and Sea*, Brisbane: Sapsford and Co., 1900, 349.

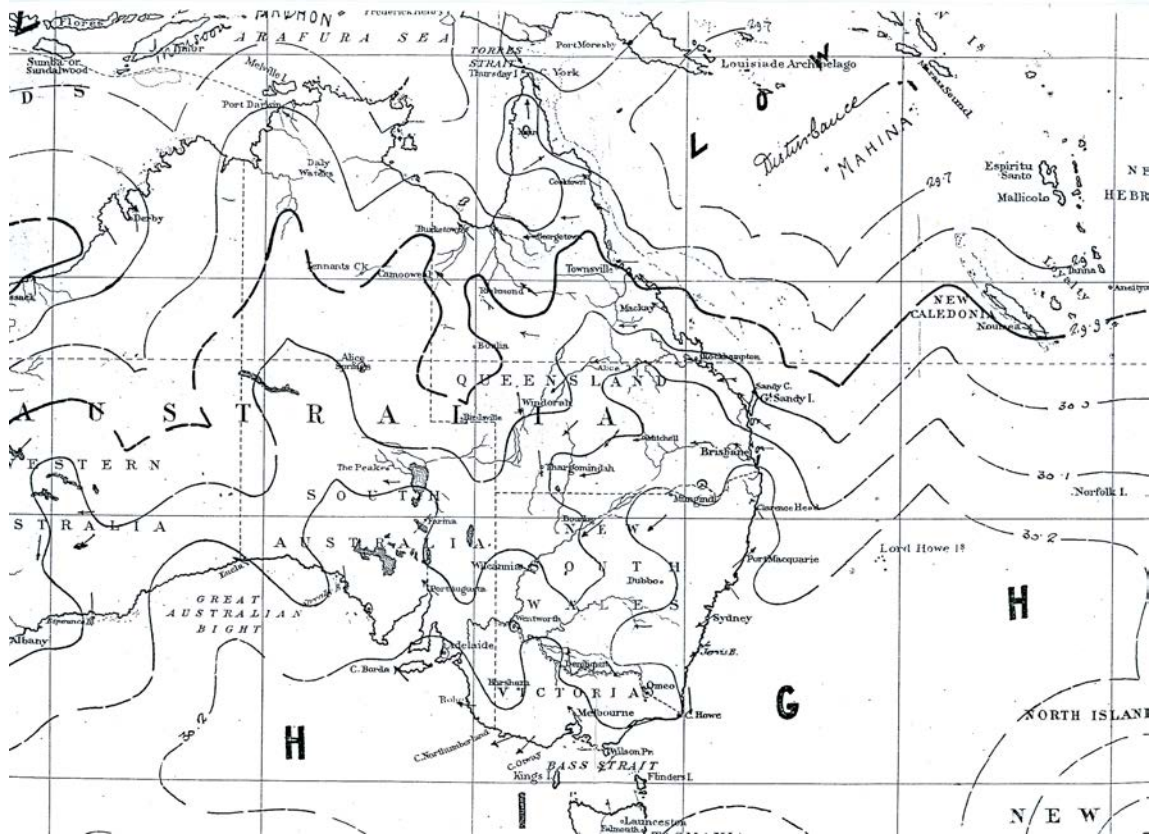


Figure 4.1 Wragge's weather chart for 4 March 1899, supplied by Jeffrey Callaghan, BOM, Brisbane.

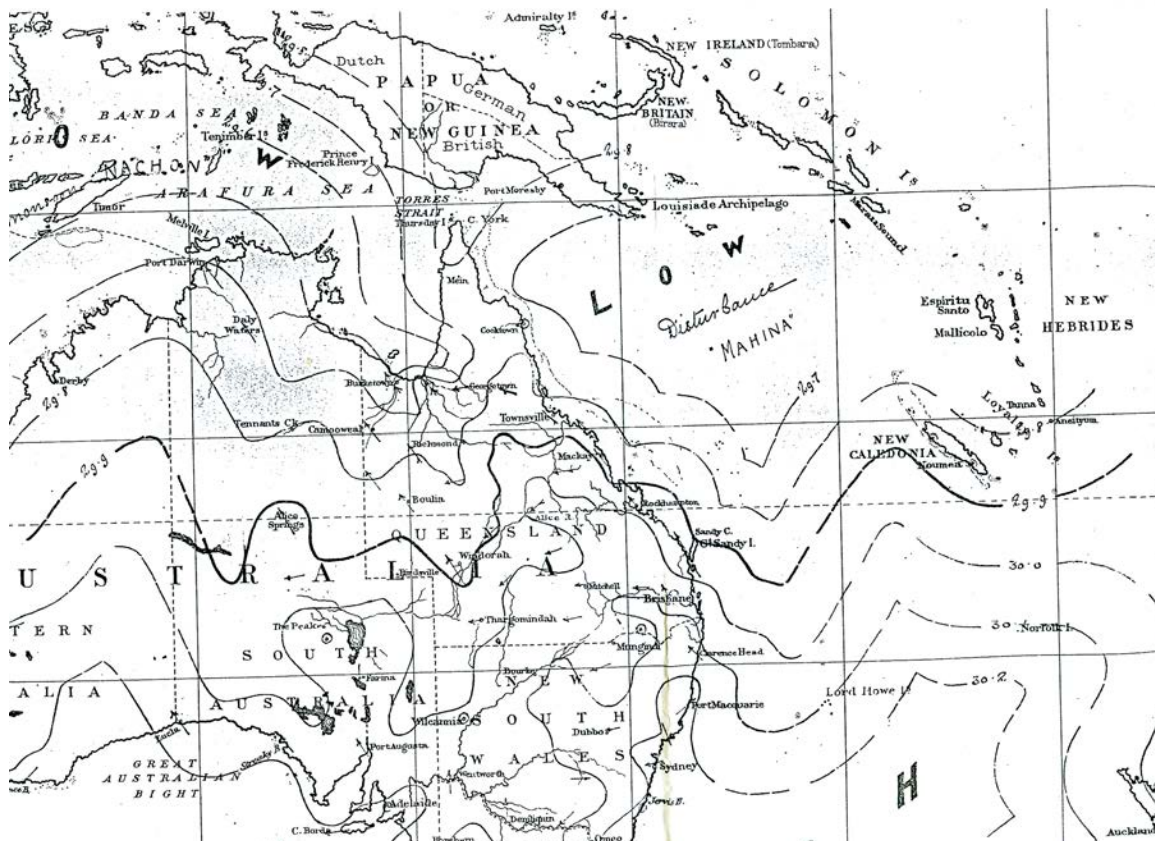


Figure 4.2 Wragge's weather chart for 6 March 1899, supplied by Jeffrey Callaghan, BOM, Brisbane.

There was criticism of Wragge's inability to forecast the cyclone that wrecked the pearling fleets,⁴⁷ and much later he revised his narrative to have *Mahina* striking the coast so far north that it was "unique in the annals of the Chief Weather Bureau, and the more so considering that it coalesced with the monsoonal storm *Nachon* in the heart of Cape York Peninsula."⁴⁸ By upgrading *Nachon* to a storm, he was suggesting that the event was so rare as to be unpredictable, whereas it was beyond his powers and the technology available in 1899 to predict exactly where any cyclone would be. By naming storms, Wragge had constructed a narrative around his own powers of forecasting and he was later forced to re-write his narrative to maintain that public illusion. Even after learning of the disaster, Wragge did not initially attribute it to *Mahina*. On 16 March, he wrote that, "all danger from a threatening disturbance *Mahina* appears to have passed away,"⁴⁹ and on 18 March the *Advertiser* in Adelaide reported that the disaster was caused by the disturbance *Nachon*.⁵⁰ On 22 March, 17 days after the disaster, Wragge began to re-write the record, blaming faulty barometers for misplacing *Mahina*, which he said did, in fact, contribute to the disaster.

It is quite possible that had the barometer at Gomen not developed an error we should have been able in more precise terms to have more accurately located the suspicious conditions attaching to the recent storm 'Mahina' when south from the Louisiades, the western edge of which was a most powerful factor in causing the recent deplorable loss of life on our far Northern coast. Now, further, it is a positive fact that had we cable communication with our stations in New Guinea, working in connection with those in the French dependency — when in order — and the observatories along our seaboard, no such storm as that which wrecked the pearling fleet could possibly approach our littoral without our being able to give ample notice to all places concerned telegraphically connected.⁵¹

Wragge insisted he could have accurately predicted the cyclone if the observatories were working properly, but even if they were, he had no way of warning the pearling

⁴⁷ For example, see "The Hurricane in the North", *Brisbane Courier*, 16 March 1899, 4.

⁴⁸ Wragge 1900, 63.

⁴⁹ "Meteorology of Australasia and Oceania", *Brisbane Courier*, 16 March 1899, 6.

⁵⁰ *Advertiser* (Adelaide), 18 March 1899, 6. The article is a strong defence of Wragge's forecast, and although it is anonymous, the style, expressions, and detail suggests it was written by Wragge. "A summer excursion among the picturesque islands and islets that abound in that region is ordinarily a delight, but when the disturbance labelled *Nachon* by Mr. Wragge came down, the fury of the tempestuous winds and waves was simply irresistible."

⁵¹ "Mr. Wragge's General Remarks", *Brisbane Courier*, 22 March 1899, 6.

fleets off the remote Cape York coast. This explanation came more than two weeks after the disaster and at a time when interest from newspapers was already waning (Table 4.1). By then, the pearling disaster was attributed in newspaper articles to the “northern hurricane”, and not to *Mahina*. *Mahina* was not associated with the disaster until Wragge re-wrote the narrative weeks after the event, and was hardly mentioned and not linked to the disaster in contemporary newspaper reports of 1899. It was, therefore, not part of the individual memories that could constitute a collective memory. It was a later construct. When it was published in September 1899, the Outridge memorial booklet repeated the newspaper reports of Wragge’s weather forecasts, including his later explanation that the disaster was caused by *Mahina* and *Nachon* acting together. The Outridge booklet had a small circulation, limited to “immediate relatives of the deceased and to others interested” and so as a memorial booklet it was not widely distributed beyond the European families and friends affected.⁵² Wragge associated *Mahina* and *Nachon* with the disaster in his Almanac for 1900,⁵³ and the myth of the two storms acting together was repeated in articles in 1934 and 1935.⁵⁴ The two-storm myth was not debunked until 1958, when Whittingham described it as “incredible” that Wragge would suggest the theory because his charts “do not support it in any way”.⁵⁵

As noted in Chapter Two, Wragge had been appointed chief meteorologist for the Queensland Government at the end of 1886, and he began to name storms in February 1894, initially based on the Greek alphabet.⁵⁶ He explained that it was “to avoid confusion” when several storms were in the Coral Sea,⁵⁷ but he later said it was to aid memory and “by this means the public and especially the shipping community will readily associate any unpleasant types of weather which they may experience with the names of the disturbances producing them.”⁵⁸ It created public discussion, raised his profile, and his forecasts were picked up by newspapers in

⁵² Anonymous 1899.

⁵³ Wragge 1900, 63.

⁵⁴ “1899 Holocaust Recalled”, *Telegraph* (Brisbane), 17 March 1934, 7; “Australia’s Most Serious Maritime Disaster”, *Telegraph* (Brisbane), 22 April 1935, 6.

⁵⁵ H. E. Whittingham, “The Bathurst Bay Hurricane and Associated Storm Surge”, *Australian Meteorological Magazine*, 23, 1958, 35.

⁵⁶ “Meteorology of Australasia and Oceania”, *Brisbane Courier*, 20 February 1894, 3. The first recorded naming in newspapers appears to be *Beta*.

⁵⁷ *Ibid.*

⁵⁸ “Local and General News”, *Queensland Times, Ipswich Herald and General Advertiser*, 28 April 1894, 4.

other colonies. In late April 1894, he began naming weather disturbances in NSW, and dubbed the first “Alpha.”⁵⁹

Wragge’s willingness to re-write his narrative can be best demonstrated by dissecting his narrative non-fiction book, *The Romance of the South Seas*, published in 1906. The book is a travelogue of Wragge’s adventures in New Caledonia and Tahiti and it is written in the present tense, but it was based on a journey Wragge made in December 1890 as a representative of the Queensland Government. The purpose was to establish weather stations in New Caledonia, from which Wragge could receive telegraph reports once the undersea telegraphic cable was laid in 1893. It would mean weather observations on the eastern side of the Coral Sea could be sent by telegraph to Wragge’s office at the General Post Office building in Brisbane twice a day.⁶⁰ From these reports, he would produce barometric charts of the region, to help him identify areas of low pressure in which a cyclone might lurk, so shipping could be warned. Wragge had already, in 1892, published a series of newspaper articles about his voyage to New Caledonia.⁶¹ His 1906 narrative of that same trip was changed to make the trip appear recent, but the material is almost identical to what he had written 14 years earlier.

(1892) Our passengers were few, but very interesting withal. Among the number were several jolly school-girls, all in, the lovely springtime of the bewitching teens, ably chaperoned by Captain Calder, and bound to their beautiful island homes in Erromango and Fiji for the Christmas holidays.⁶²

(1906) Our passengers are few, but very interesting, and among them are several jolly schoolgirls in the glorious springtime of the bewitching teens, bound to their tropic homes in the New Hebrides and Fiji for the Christmas holidays.⁶³

In his 1906 book, Wragge said he had left Brisbane in December, but did not give a year. It was probably not an oversight; the tone of the book was of a travelogue and a contemporary description of the South Seas, not one from a decade and a half

⁵⁹ “Shipping Items”, *Daily Commercial News and Shipping List* (Sydney), 27 April 1894, 5.

⁶⁰ “Scientific and Useful”, *Queenslander*, 12 May 1894, 887.

⁶¹ Clement Wragge, “Science and Travel in the Western Pacific”, *Illustrated Sydney News*, 2 January 1892, 7; 16 January 1892, 7; 13 February 1892, 4; 18 June 1892, 14; 13 August 1892, 16.

⁶² *Ibid.*, 2 January 1892, 9.

⁶³ Clement Lindley Wragge, *The Romance of the South Seas*. London: Chatto and Windus, 1906, 9.

earlier. By omitting the year and suggesting a contemporary account, Wragge presented a book of non-fiction that suited his narrative, but it calls into question Wragge's reliability as a source for historical data. The date of this trip has been interpreted by some historians as 1906,⁶⁴ but it is not clear if Wragge had updated his 1892 story using new information. For instance, the telegraph cable was laid from Australia to New Caledonia in 1893. Anticipating this in his 1892 articles, Wragge writes:

To me, fresh from Australia, the sense of isolation seemed somewhat oppressive, but some people seem, how ever, rather to prefer it. 'We don't want a cable,' said one. 'twould spoil business," though in what manner was not quite apparent. Such extraneous supplies as do not come from France, where the best of the world's goods are believed to be produced, are imported by the regular fortnightly boats from Sydney.⁶⁵

In 1906, when he published his book, the cable has since been laid, so Wragge adjusts his narrative:

To one from Australia and the outer world the sense of isolation is oppressive enough; but this, to some extent, is now relieved by the ocean cable which connects the island with Australia, and thus with the world. Yes some people liked the old *regime*. 'Je n'ai besoin d'un cable,' you hear one say; 'Spoilt my business," adds an English merchant, though how or why is not apparent. To the convicts the cable is a *bete noire*. Should one essay to escape, and succeed in putting to sea in a stolen boat, the Australian police are at once advised.⁶⁶

Wragge changed the details, turning a conversation with one man into a conversation with two. He suggests that he learned in New Caledonia that the telegraph cable was responsible for the arrest in Australia of escaped French convicts. Wragge has again revised his narrative. Can he be trusted? He is, as White describes, an historical agent prospectively prefiguring his life as a story with a plot,⁶⁷ but in Wragge's case there is evidence that he was also retrospectively

⁶⁴ Russell Brennan and Jonathan Richards, "'The Scum of French Criminals and Convicts': Australia and New Caledonia Escapees", *History Compass*, 12, No. 7, 2014, 563. Brennan and Richards write: "By 1906, when colonial meteorologist Clement Wragge visited the island ..."

⁶⁵ Wragge, "Science and Travel in the Western Pacific", 16 January 1892, 7.

⁶⁶ Wragge 1906, 35.

⁶⁷ White 1987, 173.

replotting the story of his life. If, as Munslow says, the facts are never innocent and an historian's job is to invest evidence with meaning so it can be "correlated and placed within a context,"⁶⁸ then the context in Wragge's case is that he is willing to change his story. Wragge's contribution is as an agent of memory, through his journalistic use of media, but it is his ability to reflect contemporary social narratives through his writing that is more reliable than his authority as a source for facts, because he tended to rearrange them to protect or enhance his reputation.

Wragge had a powerful narrative strategy with which he might have linked the pearling disaster to *Mahina* in a contemporary Australia-wide discourse, as he had been able to do with other storms, but he missed the opportunity by failing to forecast the disaster. When he decided retrospectively to blame the disaster on *Mahina*, it was too long after the event to enter the national discourse. It would be decades later that journalists, finding the Outridge booklet, used the name *Mahina* to reframe the disaster to reflect the cultural narratives of their day, and to attempt to reinstate it as part of a national memory.

How the pearling disaster unfolded in newspapers

Although the name *Mahina* was not linked to the disaster at the time, most of the dramatic aspects of the disaster were widely reported throughout all the Australian colonies. Chapter Two describes how events unfolded during the cyclone. Here (Table 4.1), the timeline shows when and how news of the disaster reached Brisbane, from where it was picked up by newspapers and relayed to other colonies.

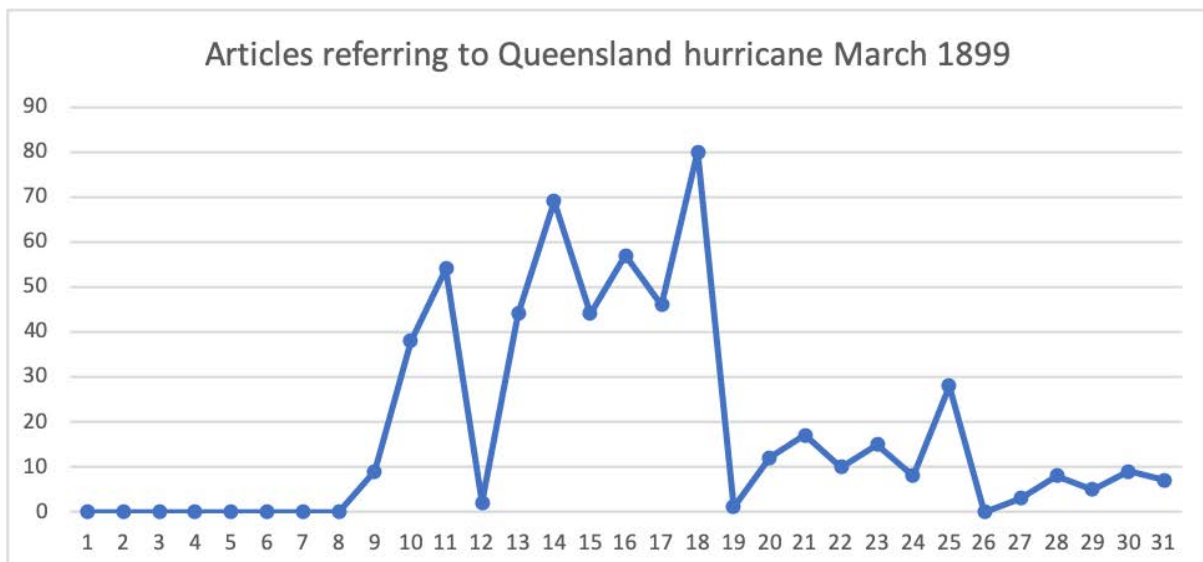
⁶⁸ Alun Munslow, *Deconstructing History*, 2nd ed., New York: Routledge, 2006, 8.

Saturday 4 March	Destructive winds begin to strike the area in which the pearling fleets are anchored on the evening.
Sunday 5 March	The cyclone crosses the coast at Cape Melville, the eye passing over Bathurst Bay. Survivors swim ashore as the storm passes.
Monday 6 March	The steamer <i>Duke of Portland</i> , travelling north, passes through the disaster area. In the evening, the <i>Duke of Norfolk</i> arrives off Cooktown and signals the loss of the <i>Channel Rock Lightship</i> and other shipping beacons to the signalmen on Grassy Hill, but bad weather prevents sending more details. This is the first report from the disaster area, but it was not published until Thursday. The loss of the beacons is wired to the Brisbane Port Master, Captain Almond, who immediately instructs the harbour master in Cairns to dispatch the small steamer <i>Victory</i> to search for the lightship.
Tuesday 7 March	The steamer <i>Kasuga Maru</i> , heading south, passes through the disaster area.
Wednesday 8 March	The <i>Duke of Norfolk</i> arrives at Townsville and wires Brisbane with more details of the disaster. The <i>Duke of Portland</i> arrives at Thursday Island, where the Government Resident John Douglas attempts to telegraph a report to Brisbane, but the cyclone has blown down the telegraph line south of Coen. Douglas sends the Government steamer, <i>White Star</i> , south to help. The <i>Kasuga Maru</i> arrives off Cooktown, but poor weather prevents communication with the telegraph station at Grassy Hill.
Thursday 9 March	The steamer <i>Warrego</i> , travelling south, passes through the area and collects telegrams to be sent from Cooktown. The <i>Warrego</i> reaches Cooktown and communicates with the telegraph station at Grassy Hill, which sends a wire to Captain Almond in Brisbane with more details of the disaster. The Government orders the <i>Warrego</i> to return to search for survivors. The editor of the <i>Cooktown Independent</i> , James Fowler, departs with the <i>Warrego</i> . The initial reports from the <i>Duke of Norfolk</i> are published in newspapers.
Friday 10 March	The telegraph line south of Coen is repaired and reports are sent by telegraph from Thursday Island to Brisbane. The <i>White Star</i> arrives at the northern edge of the disaster area and the <i>Warrego</i> arrives on the southern edge in the evening. Both ships spend the weekend delivering stores and helping survivors. Reports from the previous day sent by the <i>Warrego</i> are published.
Saturday 11 March	The search for survivors continues. Most major newspapers in other colonies report news of the disaster.
Sunday 12 March	The <i>Warrego</i> arrives back at Cooktown in the evening.
Monday 13 March	The first reports from James Fowler are published. The <i>White Star</i> arrives at Cooktown in the afternoon. Constable Kenny, who had been on the southern side of Cape Melville, returns to Cooktown.

Table 4.1 Timeline showing how events unfolded after the disaster.

Newspapers in Cairns were reporting heavy rain and flooding on Wednesday 8 March, and the *Duke of Norfolk's* initial report of beacons down, the lighthouse missing, and vessels damaged did not appear in newspapers until 9 March. The loss

of life and extent of damage did not emerge until Friday 10 March, when the *Warrego* arrived in Cooktown and sent its telegrams collected from the fleet, before returning to the scene. As discussed, when the *Warrego* left Cooktown for the disaster scene, it took with it Fowler, the editor of the *Cooktown Independent*,⁶⁹ who was also to be the “Special Correspondent” at the scene for the *Brisbane Courier*. The initial articles published in newspapers around the country originated from either the telegraphed reports of Fowler, or from the telegrams and letters sent from the fleets. Those reports had to be brought to Cooktown to be transmitted, or delivered to Brisbane by steamer, and it sometimes took several days for reports from the scene to appear in newspapers.



Graph 4.1 Newspaper articles referring to the pearling disaster published in Australia for March 1899. Note that 12, 19, and 26 March were Sundays, and most newspapers did not have Sunday editions. (Source: Trove, National Library of Australia.)

As reflected in Graph 4.1, the extent of the disaster was not reported in newspapers until 9 March, four days after the cyclone struck, because shipping had been disrupted and the telegraph line south of Coen knocked down.⁷⁰ The rate of reporting rose for 10 days as new information arrived, culminating in Saturday newspaper spreads on 18 March detailing all available aspects of what had happened.

⁶⁹ “The Late Hurricane. Return of the *Warrego*”, 6; T. P. Pugh, *Pugh’s Almanac and Queensland Directory*, 1899, 812; “Random Remarks,” *Truth* (Brisbane), 31 May 1903, 1.

⁷⁰ “The Late Hurricane. Further Particulars. Return of the Steamer *Warrego*. Loss of Life Estimated at 400”, *Brisbane Courier*, 14 March 1899, 5.

Reportage quickly fell away two weeks after the disaster. (It is worth noting that the reports generally referred to the disaster as the “northern hurricane”. As mentioned, the name *Mahina* was not associated with the cyclone until Wragge revised his narrative.)

In their study of disasters and national identity, Brad West and Philip Smith argue that the longer the duration of a disaster, or the more times it occurs, the more likely it is to be considered a “symbolic enemy.”⁷¹ In that sense, cyclones, floods and bushfires have been considered transitory threats. Droughts are considered national disasters because they endure for such a long time and affect larger parts of the country. However, West and Smith give the example of an exception; cyclone *Tracy*, which struck Darwin on Christmas Day 1974, destroying 90 percent of homes and causing about \$400 million in damage.⁷² They show that the national discourse in the *Australian* newspaper lasted two weeks and note that “media discourses on natural disaster have a short half-life.”⁷³ Cyclones, they argue, can only be constructed “with difficulty as a national event”⁷⁴ and even then they need to have a narrative linking them to other states. In the case of *Tracy*, it became a national event because the disaster was framed by its association with the Australian military, which took control of the devastated city, and through a national relief campaign.⁷⁵ West and Smith argue that cyclone *Tracy* “was the first Australian cyclone to be interpreted as a national event.”⁷⁶ *Tracy* was quickly portrayed in the media as Australia’s worst national disaster, “a nightmare of death and devastation unparalleled in Australian history”⁷⁷ and the “worst natural disaster ever to hit Australia.”⁷⁸ While it might be said that the journalists did not check their facts, the widespread representation of *Tracy* being the “worst” national disaster reflects both the cultural narrative and the social memory. This representation, says West, is consistent with Durkheim’s concept of social facts being specific realities that

⁷¹ Brad West and Philip Smith, “Natural Disasters and National Identity: Time, Space and Mythology”, *Australian and New Zealand Journal of Sociology*, 33, No. 2, August 1997, 206, <http://search.informit.com.au/documentSummary;dn=980201378;res=IELAPA> (accessed 7 February 2019).

⁷² *Ibid.*

⁷³ *Ibid.*, 206.

⁷⁴ *Ibid.*, 208.

⁷⁵ *Ibid.*, 213.

⁷⁶ West 2000, 198.

⁷⁷ “Cyclone toll”, *West Australian*, 27 December 1974, 6.

⁷⁸ John Lombard, “Man in the Centre of it all”, *Advertiser* (Adelaide), 27 December 1974, 5.

represent a social solidarity rather than “rational facts.”⁷⁹ West argues that because the battle at Gallipoli in the First World War had become the main national myth, *Tracy* resonated nationally because the involvement of the military linked the disaster with Australia’s war past. In contrast, the 1899 cyclone did not provide the elements to create a myth for a new nation. Instead, as previously discussed, it was considered an event that was predominantly one that affected foreign labourers in the far away and dangerous tropics. In the sense that it affected the European community, it was linked not to the emerging new Australian nation, but to ideals of colonial British determination, as expressed in a letter from a London correspondent published in the *Week* newspaper:

The blow is a heavy one for a small and young colony, but Queensland has, I hope, the mettle to meet it. Troubles and difficulties have often proved the grit of the British colonist. So may it be with you. In the meantime be assured that you have the warm sympathy of ‘the old folks at home.’⁸⁰

There was no Australian government in 1899, of course, and the disaster was considered a colonial Queensland responsibility. The Queensland Government did marshal resources to provide assistance to shipwrecked sailors and Aboriginal people ashore.⁸¹ Significantly, though, a public appeal for funds for the families of those affected fell flat.⁸² The appeal had been originally set up to fund “the relief of the widows and orphans and others rendered destitute by the late hurricane in the North.”⁸³ However, the only report of a widow in the newspapers was at Thursday Island where a “coloured woman whose husband was lost was greatly distressed.”⁸⁴ This refers to Maria Perez, wife of Marco Perez (who, confusingly, also had two death certificates. See Figure 4.3 and Figure 4.4) the master of the schooner

⁷⁹ West 2000, 198. See also Emile Durkheim, *The Rules of Sociological Method*, Sarah A. Solovay and John H. Mueller (trans.), George E.G. Catlin (ed.), New York: Free Press, 1964, 103.

⁸⁰ “Our London Letter”, *Week*, 28 April 1899, 23.

⁸¹ Walter Roth to Under Secretary Home Office, “Report Re Distribution of Gifts to Coastal Aboriginals”, 9 April 1899, HOM/A23/99/5252, QSA, ID847561, 1.

⁸² “Pearling Disaster. Mayor of Brisbane’s Fund”, *Telegraph* (Brisbane), 8 April 1899, 9. As previously mentioned, only three members of the public subscribed.

⁸³ “Relief Fund”, *Queenslander*, 25 March 1899, 544.

⁸⁴ “The Hurricane in the North”, *Northern Miner* (Charters Towers), 16 March 1899, 2. The pearling fleet’s indentured crews generally did not live on Thursday Island, but on their boats. Marco Perez, being a master of a schooner, was one of the exceptions.

Admiral.⁸⁵ The lack of newspaper coverage of the widows of the disaster may have undermined sentiment towards the appeal, which was largely based in far away and white Brisbane. There was little or no newspaper coverage of the effect of the cyclone on the families of those killed.

Figure 4.3 Death certificate of Marcus Perez, 5 March 1899, QBDM, Cooktown, 1899/1248.

Figure 4.4 Death certificate of Marco Perez, 4 March 1899, QBDM, Cooktown, 1899/1112.⁸⁶

Paula Hamilton, in her study of the 1938 *Rodney* ferry disaster in Sydney, discusses conventional narrative frameworks for disasters in media coverage that concern bravery as well as “victims of fate.”⁸⁷ In the 1899 pearling disaster, however, most of the Europeans who might have filled those narrative roles died when their vessels sank in Bathurst Bay.⁸⁸ No-one was left to tell tales of heroism. The stories of heroism appearing in the press related almost entirely to the non-European crews and local Aboriginal people.

⁸⁵ John Douglas, “Report of the Government Resident at Thursday Island for 1898”, *QVP*, 1, 1899, 100. Douglas writes: “One woman with two children has been left quite unprovided for, but with this exception I do not know of any case of serious destitution.”

⁸⁶ There are two death certificates for Perez. The anomaly is discussed in Chapter Three, showing they belong to the same person. Perez is also mentioned in the Outridge booklet as “Marcos Peres [sic], an excellent sailor and an old diver ...” As respected as he was, his name was not included in the memorials because he was not European, and Chapter Three addresses the questions this raises about the reliability of some official records and primary sources, and their contribution to what is remembered and forgotten about the pearling disaster.

⁸⁷ Paula Hamilton, “Memory Remains: Ferry Disaster, Sydney, 1938”, *History Workshop Journal* 1999, No. 47, 1999, 203.

⁸⁸ As described in previous chapters, William Field Porter, the master of the schooner *Crest of the Wave*, the only vessel in Bathurst Bay to stay afloat, provided the only narrative of the white male hero, saving his wife and child by forcing his crew to the pumps.

We read of Japanese women who swam to land not knowing that the infants in their arms, for whom they struggled so heroically, were dead.⁸⁹

A colored man reached the shore accompanied by two colored women after swimming about four days.⁹⁰

... considerable bravery was displayed by the coastal aboriginals in rendering assistance to the wrecked pearlers and in burying the bodies which were washed ashore.⁹¹

The natives were burying the dead and fighting the bushmen, and keeping them back from the bodies.⁹²

The confusing nature of some of the reporting helped weaken a narrative which included rumours that were later disputed.

Mr. James Clark ... spoke in high terms of the attention of the coastal aboriginals, and ridicules the idea of the hill tribes fighting the coast ones over the plunder.⁹³

Sociologist Thomas R. Forrest identifies natural disasters as major disruptions to society, representing “one of life’s most significant events, both individually and for the community. The anniversary of a disaster becomes an expression of community memory.”⁹⁴ In the pearling disaster, however, there were three distinct main communities: The Europeans, the non-European crews, and the Aboriginal people ashore. One of the other features that distinguishes the pearling disaster from other Australian disasters is the lack of commemoration in the years following the event. One small notice appeared in the *Brisbane Courier* on the first anniversary, in 1900, which read, “In memory of the Pearlers and Crew of the Lightship, drowned off Cape Melville in the hurricane of the 4th and 5th March, 1899.”⁹⁵ Other newspaper memorials followed for three years only, remembering the European pearlers Alfred

⁸⁹ *SMH*, 17 March 1899, 4.

⁹⁰ “The Hurricane. A Colored Man's Bravery”, *NQR*, 20 March 1899, 14.

⁹¹ “Northern Hurricane”, *Telegraph* (Brisbane), 20 April 1899, 2.

⁹² “Return of the Warrego”, *Queenslander*, 25 March 1899, 545.

⁹³ *Ibid.*

⁹⁴ Thomas R. Forrest, “Disaster Anniversary: A Social Reconstruction of Time”, *Sociological Inquiry*, 63, No. 4, 1993, 447.

⁹⁵ “Family Notices”, *Brisbane Courier*, 5 March 1900, 4

and Harold Outridge, Robert Cameron, and William Powell.⁹⁶ Cultural conventions normally provide a framework for which anniversaries are observed. There is often a first anniversary followed by remembrance at five years, and then often 25, 50, 75 and 100 years.⁹⁷ Theories of disaster commemoration fail to explain the anomaly of the pearling disaster, and this is because most of the victims were not considered to be part of the society in which the disaster occurred. The site of the disaster was also so remote as to be outside the experience of most Australians who lived south of the Tropic of Capricorn, and it would be decades before journalists rediscovered and reprised the event. This fragmented retelling also had an impact on the way the disaster was to be remembered.

Journalists not only use narrative structures to tell stories, but through their work they see the world in a “storied way.” Events are understood through stories that have a beginning, middle and end, and this structured narrative also includes a moral dimension to events.⁹⁸ Often the narrative strategy or narrative type (such as a romance narrative, or the story of a male hero overcoming adversity) will dictate how an event is reported, and the event will sometimes be retold in a way that fits the narrative strategy. In her article on the relationship between memory and the public record, Hamilton looks at the 1938 Sydney *Rodney* ferry disaster and asks why some events “slip from public consciousness” and others persist.⁹⁹ She concludes that one reason the ferry disaster was displaced from the collective memory was because of the “narrative strategies” used by the press, involving romance as the dominant story.¹⁰⁰ Most of the dead were women, and Hamilton argues that there was social disapproval of these young women behaving precociously and exerting their independence at the time. (They had taken the ferry to visit American sailors.) The romance narrative was met with disapproval. Hamilton describes the *Rodney* ferry disaster as not being entirely forgotten, but having followed a different pattern of

⁹⁶ “Family Notices”, *Telegraph* (Brisbane), 5 March 1901, 4; “Family Notices”, *Queenslander*, 8 March 1902, 504; “Family Notices”, *Brisbane Courier*, 4 March 1902, 4; “Family Notices”, *SMH*, 5 March 1903, 6.

⁹⁷ Forrest 1993, 446.

⁹⁸ Ronald Jacobs, “Producing the News, Producing the Crisis: Narrativity, Television and News Work”, *Media, Culture and Society*, 18, No. 3, 1996, 381.

⁹⁹ Hamilton 1999, 195.

¹⁰⁰ *Ibid.*, 207.

remembrance because the stories were attractive to popular history retelling involving melodrama. As Hamilton states:

... the disaster keeps a tenuous hold in localized popular memory, claimed as another kind of remembering. It persists, despite being absent from the wider canon of heroic tragedies that are worthy of public memorializing.¹⁰¹

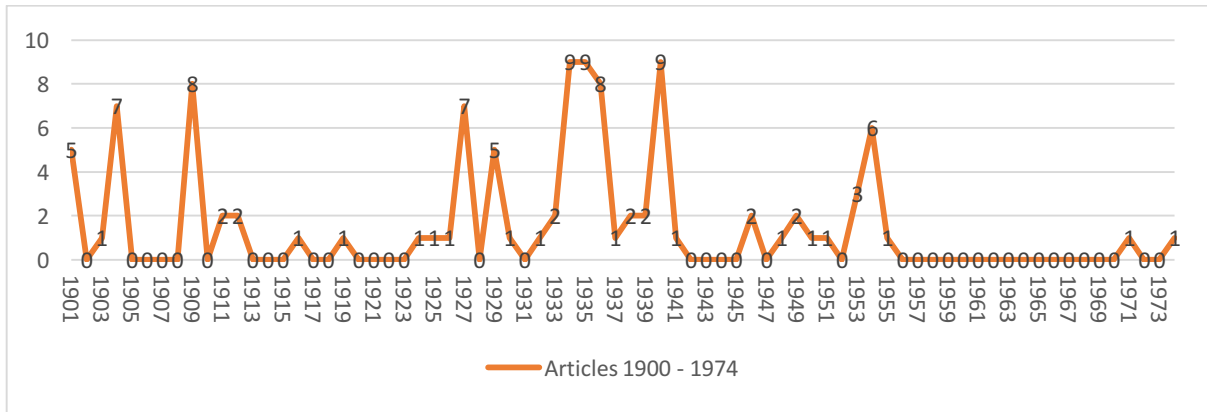
Similarly, the pearling disaster of 1899 was not something that most of the Australian colonialists appeared to find worthy. The attempt by journalists to employ the narrative strategy of the hero failed because it did not conform with the contemporary literary narratives involving tropicality. The heroes in the pearling disaster were not European. As previously stated, the social discourse in all colonies was the anticipation of the exclusion of aliens (who, in the pearling crews, constituted nearly all the dead) from a White Australia. Irwin-Zarecka points out that an event “which does not fit with the established structures of thinking and feeling is very likely to be excluded from remembrance.”¹⁰² I would add that, like the *Rodney* disaster, the pearling disaster was spatially restricted, to one geographical place, and it was also temporally restricted, to about two weeks of news in colonial newspapers, reprised briefly in later published coronial inquests or family notices, but generally quickly subsumed by other news. As Hamilton also explains, “disasters are not usually regarded as the substance of scholarly work by historians; it is left rather to other storytellers to keep these tales alive in the cultural imagination.”¹⁰³ Hayden White points out that an historical event cannot be separated from its retelling, and that the retelling is central to how the past is remembered.¹⁰⁴ In the case of the pearling disaster, it was left to journalists to later retell the event as a popular, narrative non-fiction history, and they struggled to find a narrative that resonated.

¹⁰¹ Ibid., 208.

¹⁰² Iwona Irwin-Zarecka, *Frames of Remembrance. The Dynamics of Collective Memory*, New Jersey: Transaction Publishers, 1994, 121.

¹⁰³ Hamilton 1999, 197.

¹⁰⁴ Hayden White, “The Historical Text as Literary Artifact”, *Clio: An Interdisciplinary Journal of Literature, History, and the Philosophy of History*, 3, 1974, 277–303.



Graph 4.2 Newspaper articles mentioning the 1899 pearling disaster published in Australia for 1900–1974 (from sources collected from Trove, National Library of Australia).

Graph 4.2 shows how the retelling of the pearling disaster between 1899 and 1974 does not follow any pattern of memorial anniversaries. The spike in reports in 1903 follows cyclone *Leonta* damaging Townsville. The spike in 1909 reflects the syndication in newspapers of an article referring to “Notable Events” in Queensland history and briefly mentioning the 1899 disaster, as do the spikes in 1927 and 1929. The first significant narrative retelling of the 1899 disaster occurred six days after a severe cyclone struck the coast north of Port Douglas on 11 March 1934, causing extensive damage to pearling fleets and killing 75 people. The first article mentioning the 1899 disaster published after the 1934 cyclone used the Outridge booklet as its source, and that article appears to be the basis for subsequent articles over the next two years.¹⁰⁵ ABC Radio in the 1930s or 1940s ran a narrative non-fiction dramatisation of the event featuring Moira Newi’s rescue of two white men (see Chapter Three),¹⁰⁶ but cyclone *Mahina* was rarely mentioned, and never as the sole cause of the disaster. It was not until 1971 that Holthouse declared it to be “Mahina’s responsibility alone.”¹⁰⁷

¹⁰⁵ “1899 Holocaust Recalled”, 7. The article states that its source was a memorial booklet provided by Charles Vidgen. Charles was the brother of H. G. Vidgen, manager of the *Olive*.

¹⁰⁶ Charles Porter, “The Pearling Fleet Disaster 1899”, Brisbane: Australian Broadcasting Commission, n. d., BP257/1, 69/12, NAA.

¹⁰⁷ Hector Holthouse, *Cyclone*, Adelaide: Rigby, 1971, 15. One newspaper article in 1955, however, did link it to *Mahina* before 1971. See “Looking at Queensland”, *Beaudesert Times*, 30 December 1955, 6.

Trauma and forgetting

Trauma is another aspect of the pearling disaster that undermined the collective memory. Psychological trauma plays a role in forgetting, when survivors withdraw emotionally and suppress memory.¹⁰⁸ For an event that killed about 300 people and was directly experienced by as many as 2,000 at sea and ashore, few personal reminiscences post-disaster exist, which is unusual for Australian disasters. As Stuart Piggin points out, “disaster memories are particularly tenacious.”¹⁰⁹ The reasons for forgetting 1899 are explained in Chapter Three, but there is evidence that psychological trauma played a significant role. In his study of the Mt Kembla coal mine disaster of 1902 (which he notes has been commemorated each year since), Piggin divided the long-term impact of disasters into three phases: The anniversary phase where a legend or memory is created, a survivor phase where the legend is defended, and the post-survivor phases where the legend is analysed.¹¹⁰ In the 1899 pearling disaster, the first two phases failed. It is only now, in the post-survivor phase, that the memory of the pearling disaster, or the lack of it, is being analysed. Of course, mining disasters usually occur close to small, relatively homogenous, close knit mining communities near the disaster site, where there are opportunities for commemoration, community support, and reflection. The 1899 pearling disaster was remote and involved disparate communities that, while they shared a common purpose and experience, were fragmented and racially segregated.

There is evidence that the isolation of families, unable to find support, may have also contributed to long-term trauma and forgetting. The family of the master of the *Channel Rock Lightship*, Gustaf Fuhrman, suffered considerably after Fuhrman drowned when the lightship sank in the disaster. Fuhrman was 46, leaving a wife and five children. He had a salary of £175 a year,¹¹¹ but his widow, Helena, received only a £75 grant from the government after his death.¹¹² Helena Fuhrman died of

¹⁰⁸ Hunt 2010, 8.

¹⁰⁹ Stuart Piggin, “The Mt Kembla Mine Disaster, 1902: Quarrying the Seams of Evidence to Assay the Human Response,” in Peter Hinton (ed.), *Disasters: Image and Context*, Sydney Association for Studies in Society and Culture, 1992, 11.

¹¹⁰ *Ibid.*, 14

¹¹¹ Public Service Board Queensland, *Blue Book of Queensland*, 1899.

¹¹² “Bystander’s Note-Book”, *Worker* (Brisbane), 30 December 1899, 5.

“Pulmonary TB, general wasting and exhaustion” on 10 November 1901.¹¹³ The couple’s eldest daughter, Teresa, also died from tuberculosis in 1904, aged 16,¹¹⁴ and the four surviving children were adopted out to two different families. The two sons lost contact with the two daughters. The living descendants of Gustaf Fuhrman state that their family rarely spoke to them about the disaster and its consequences, and they feel that there is a gap in their family history that they have found difficult to fill. In January 2011, one of Gustaf Fuhrman’s descendants, Robin Fuhrman-Luck, posted a message in Brisbane’s *Sunday Mail* asking for other descendants to contact him,¹¹⁵ but he received no reply. It was not until another of Fuhrman’s great grandsons, Jim McIntyre, contacted me, as the author of a novel, *The Devil’s Eye*, based on the disaster, that two branches of the family were reunited. One of the aspects that linked the experiences of all descendants was that, while all were aware that their ancestor drowned in a cyclone, they had no family memories of the disaster and their parents and grandparents never talked about the traumatic events that followed it. The descendants are unsure why the orphaned siblings, their grandparents, were separated. Beverley McGowan, a granddaughter of Oscar, one of Gustaf Fuhrman’s two sons, stated: “It has left a great ancestral hole in our upbringing because we weren’t even, like, I don’t think we even had a conversation until I was about 14.”¹¹⁶ James McIntyre is the grandson of Helena, one of Gustaf Fuhrman’s two daughters: “I heard that my great-grandfather was a ship’s captain, there was a terrible storm and he died in that storm. They didn’t share anything about Helena being orphaned from it and the Fuhrman-Luck side of things. ... so that’s all we were told as kids; there’d been a terrible storm and he was a ship’s captain.”¹¹⁷

Psychoanalyst M. Gerard Fromm describes overwhelming, unbearable traumatic experiences that “fall out of social discourse, but very often on to and into the next

¹¹³ Death Certificate of Helena Fuhrman, 10 November 1901, Queensland Births, Death and Marriages Registry, Brisbane, 1901/1846.

¹¹⁴ Death Certificate of Teresa Honora Fuhrman, 27 January 1904, Queensland Births, Death and Marriages Registry, Brisbane, 1904/4376.

¹¹⁵ “Hard-to-Find Items? Long-Lost Friends or Family? Arranging a Reunion? Ask Our Readers for Help”, *Sunday Mail*, 16 January 2011, 53.

¹¹⁶ Beverley McGowan in an interview with Ian Townsend, 10 May 2017.

¹¹⁷ James McIntyre in an interview with Ian Townsend, 10 May 2017.

generation.”¹¹⁸ Trauma often involves family silences, which develop when children try to protect traumatised parents by shunning a subject that causes distress and when families “collude to maintain these silences to protect themselves and the survivor from post trauma reactions.”¹¹⁹ The consequence can be a third generation aware of a conspiracy of silence and bereft of knowledge. For the Fuhrman descendants, there is no direct personal memory of the disaster, and the memories of the disaster that exist are the result of family research undertaken in recent years. The memories that have been re-introduced by this research feature two of the myths of the cyclone that were created by narrative non-fiction authors: The deaths of 100 Aboriginal people as described by Holthouse (see Chapter Three), and Wragge’s claim that the disaster was caused by the meeting of two cyclones. This is described by another of Fuhrman’s descendants, Robin Fuhrman-Luck: “One came across from the Gulf, one came from out in the Coral Sea, and they met at Bathurst Bay.”¹²⁰ That these myths resonate for the family, and that they were created after the event by narrative non-fiction authors, reveals the significance of the narrative form to history. It points to a perceived gap in a narrative of the pearling disaster that the authors felt needed to be filled by a contemporary cultural construct, and an explanation for the unpredictability of the disaster. These additions to the narrative appear to have made it more memorable.

Conclusion

Despite the loss of about 300 lives, the pearling disaster of 1899 failed to resonate as a national tragedy, and the reasons why can be understood through social, political, and media contexts pre-disaster and post-disaster. The political and racial discourses that dominated the debates over Federation, especially the anticipation of a White Australia, provided the framework for the initial newspaper reports of the disaster and, therefore, what was to be included in the collective memory. The media framed the disaster as a foreign one. The “alien question”, referring to the political

¹¹⁸ M. Gerrard Fromm, “Introduction”, in M. Gerard Fromm (ed.), *Lost in Transmission: Studies of Trauma Across Generations*, London: Karnac, 2012, (ebook).

¹¹⁹ Michelle R. Ancharoff, James F. Munroe, and Lisa M. Fisher, “The Legacy of Combat Trauma. Clinical Implications of Intergenerational Transmission”, in Yael Danieli (ed.), *International Handbook of Multigenerational Legacies of Trauma*, New York: Plenum Press, 1998, 263.

¹²⁰ Robin Fuhrman-Luck in an interview with Ian Townsend, 10 May 2017. Fuhrman-Luck said he began to research his family “about 10 years ago.”

and social debate about the benefits of foreign labour against the perceived threat to British racial purity, was already being addressed in the plebiscites of 1899, and the disastrous hurricane that caused the pearling disaster was also seen as a timely and symbolic answer to a political issue.¹²¹ As a reflection of the social discourses, the Outridge memorial booklet, published for the families and friends of the European victims of the disaster, was never meant to be an historical narrative. It was a cultural narrative and a work of journalism that should be treated with caution and yet it, and other accounts based on it, have been used by researchers as authoritative sources for data.¹²²

Similarly, Wragge's version of events was to later form part of official accounts and contribute to myths that were to persist about the disaster, including that it was caused by two cyclones colliding over Cape York. Wragge is credited for naming and forecasting the cyclone that caused the pearling disaster, but a review of his reports and weather charts shows that he revised his narrative to fit the event in hindsight. Newspaper reports did not associate *Mahina* with the pearling disaster at the time. Wragge's narrative device of personifying weather disturbances played a role in the collective memory of other weather events,¹²³ but he failed to forecast the cyclone that caused the pearling disaster. The "literary gymnastic efforts"¹²⁴ that he employed in his forecasts undermined the gravity of the disaster and rankled with readers and even some newspapers which published them, which described them as "strange in a sober meteorological report."¹²⁵ That, coupled with the excuses Wragge made for not forecasting the event, further undermined the contemporary cultural narrative. By way of comparison, cyclone *Tracy*, which struck Darwin in 1974, did resonate as a national disaster because the cyclone's name was immediately linked to the event and, as West notes, *Tracy* quickly became associated with the existing national ANZAC myth because the Australian military was involved in relief operations.¹²⁶

¹²¹ "Settling the Alien Difficulty", *NQR*, 20 March 1899, 25.

¹²² "Tropical Cyclone Wave Modelling", *Shore to Sea*, Australian Maritime College, University of Tasmania, 1, July 2012, 37.

¹²³ This was the case with *Emma* in 1897. See "Mr. Wragge's Spirits of the Storm", *Age* (Melbourne), 20 March 1897, 7; "Mr. Wragge's 'Emma'", *Argus* (Melbourne), 11 August 1910, 10.

¹²⁴ "Another Great Sorrow", *Telegraph* (Brisbane), 14 March 1899, 4.

¹²⁵ "Blacks and Blankets", *Evening News* (Sydney), 13 March 1899, 4.

¹²⁶ West 2000, 198.

Newspaper reporting of the 1899 disaster was temporally restricted, and the event was spatially restricted, which also limited the impact it had on the national discourse. The conventional narrative strategies of the media, in identifying bravery and “good victims,”¹²⁷ could also not be applied to the European community which constituted the media audience, because most of the Europeans who experienced the destructive centre of the cyclone died. The application of such narratives to the non-European crews did not resonate because of racial stereotyping. A heavily racialised political debate had already painted “aliens” as the antithesis of those who were to be citizens of a new White Australia. The disaster affected three distinct and disparate communities, so there was no one encompassing, consistent narrative. Finally, the psychological trauma of survivors and families, and their reluctance or inability to speak privately or publicly, also contributed to collective forgetting. There is evidence of intergenerational trauma, which short-circuited the family memories of the disaster. This social forgetting may have also contributed to a lack of academic interest in the disaster by social scientists, and therefore allowed myths to be perpetuated in the historical record and official and scientific databases.

The methodology in this thesis has dispelled the myths to produce better evidence for the disaster. The following chapter will show how better data from historical inquiry can contribute to science, by reconstructing significant aspects of the 1899 cyclone that may help communities prepare for future disasters.

¹²⁷ Hamilton 1999, 200.

CHAPTER 5

The Storm Tide: Applying History to Science

We need to understand what caused such a very large storm surge as there [are] other parts of the Queensland coast with similar complicated bathymetry.

BOM severe weather forecaster, Jeffrey Callaghan.¹

This chapter will show how historical evidence produced by the methodology can be applied to models of the 1899 cyclone, to prepare for future disasters. The Queensland *Disaster Management Act 2003* guideline on mitigating the impacts of cyclones considers “worst case” scenario predictions for storm tides.² One of the problems with preparing for natural disasters caused by cyclones is that few people know what a worst case looks like. Category Five cyclones passing directly over populated areas and producing damaging storm tides have been so infrequently recorded that it is difficult to get a statistically significant sample.³ In the case of the 1899 cyclone, the damaging eye passed over and near a relatively large number of trained weather observers, including ships captains who recorded the event with barometers and by taking reliable observations, making the event almost unique. That a wooden sailing vessel, *Crest of the Wave*, survived the eye of a Category Five cyclone, and that a Native Police patrol survived a world record storm tide at the place it came ashore, is remarkable. Data from the cyclone provides an opportunity to learn from a rare event and the value of surviving observations to scientists and emergency managers is recognised in the numerous academic papers that have

¹ Jeffrey Callaghan, “Our Interpretation”, BOM, Brisbane, 2006, 4. (Typed notes courtesy of Jeffrey Callaghan.)

² Queensland Government, *Queensland Prevention Preparedness, Response and Recovery Disaster Management Guideline*, Queensland Fire and Emergency Services, 2017, 27. <https://www.disaster.qld.gov.au/dmg/Documents/QLD-Disaster-Management-Guideline.pdf> (accessed 21 March 2019). Government risk assessments include the use of historical analysis “to cover the spectrum of most likely to credible worst case scenarios using geospatial intelligence.”

³ Bruce Harper, “Storm Tide Threat in Queensland: History, Prediction and Relative Risks”, *Conservation Technical Report No. 10*, RE 208, Department of Environment and Heritage, 1999, 5. “The historical rarity of severe storm tides along the Queensland coast, and more particularly at any specific location, precludes the use of basic statistical methods using measured water level data for the estimation of long term risk.” Bruce Harper, Stan Stroud, Michael McCormack, and Steve West, “A Review of Historical Tropical Cyclone Intensity in Northwestern Australia and Implications for Climate Change Trend Analysis”, *Australian Meteorological Magazine*, 57, 2008, 121–141. The study notes that the eyes of fewer than 20 of 900 cyclones in the Australian database passed directly over an instrument that could reliably measure them.

been published using data associated with those observations. As discussed in this thesis, much of the data referring to the 1899 cyclone and appearing in the scientific literature come from secondary sources which can be shown to have been shaped by media errors as well as social and political narratives. The current entry for the 1899 cyclone in the Australian Government's database on disasters, the *Disaster Resilience Knowledge Hub*, is a compilation of some of that secondary source data:

On 4 March 1899, a Category Five cyclone hit Bathurst Bay with winds reaching 260 kilometres per hour. A tsunami of 14.6 metres swept inland for five kilometres. A wave surge measuring 13 metres at Ninian Bay (adjacent to Barrow Point, 30 kilometres south of Bathurst Bay) extended inland for three to five kilometres. At Bathurst Bay, near Princess Charlotte Bay (Cape York), at least 307 crew members died from a pearling fleet of over 100 vessels plus other craft (with 152 sunk or wrecked, some found kilometres inland) as a result of the storm surge. Over 100 Aboriginal people died trying to help the shipwrecked.⁴

In fact, the cyclone crossed the coast on 5 March, the winds were not measured, and there was no tsunami. The methodology used in this thesis shows that there is a reliable report of a storm tide that may be as high as 13 metres, but that height was not measured and is yet to be corroborated. It was not reported at Ninian Bay. Although the death toll may have exceeded 300, there is evidence for fewer than 300 deaths. Fewer than 60 vessels were lost, and none was found kilometres inland. There is no evidence that 100 Aboriginal people died, but there is evidence (as shown in Chapter Three) that this figure was invented in 1971.

Most previous attempts to map the path of the 1899 cyclone and corroborate the height of its storm surge have also relied on untested data from secondary sources. This chapter will demonstrate how historical inquiry can reveal unreliable data in scientific and government databases, and produce credible data in which scientists and emergency managers can have more confidence. This thesis will show how an historical methodology, described in Chapter One, can reveal the cyclone's likely track and the elements that contributed to the storm tide associated with the cyclone.

⁴ Australian Institute for Disaster Resilience, "Cyclone Mahina 1899", *Disaster Resilience Knowledge Hub*, <https://knowledge.aidr.org.au/resources/cyclone-cyclone-mahina-cape-york-queensland> (accessed 7 February 2019).

The cyclone's track: previous studies

Understanding the tracks of past cyclones, and the factors that influence them, helps scientists better predict cyclones. Cyclogenesis, the formation of the cyclone, was discussed in Chapter Two. The Queensland Government meteorologist, Clement Wragge, on 24 February 1899, described a tropical disturbance he named *Tirau* 300 miles (about 480 kilometres) north of New Caledonia.⁵ The technological limitations of the era meant that Wragge could not have known where the disturbance was centred, but he described an area of low pressure probably imbedded in a monsoon trough south of the Louisiade Archipelago in what was then British New Guinea. This is a common region of cyclogenesis in the Coral and Solomon seas. The cyclone is likely to have formed in this area a week to ten days before it struck Cape Melville. Previous attempts have been made to assess its track. Clement Wragge reconstructed a track for the Outridge booklet when it was published in September 1899 (Figure 5.1) but, as described in Chapter Four, this was a revision of his daily weather charts in which the disturbance he had renamed *Mahina* never crossed the coast.⁶

Most modern reconstructions have the cyclone tracking from the north-east. However, meteorologist H. A. Hunt in 1914 had the cyclone coming from the north-north-east (Figure 5.2)⁷ and in 2011 meteorologist Jeffrey Callaghan proposed the cyclone came from the north, because the wind at midnight near Pelican Island veered south-east to south-west, as well as other observations (Figure 5.6).

The *Crest of the Wave* in Bathurst Bay reported that the wind only began to increase between 11 p.m. and midnight whereas *Olive* near Pelican Island reported that the gales began at 10 p.m. This northerly track would also be more likely to bring large waves into Bathurst Bay and Barrow Point as ... there is more open water northwest of Cape Melville inside the reef and the largest breaks in the reef are north of Cape Melville.⁸

⁵ "The Weather", *Telegraph* (Brisbane), 24 February 1899, 8.

⁶ "Meteorology of Australasia and Oceania", *Brisbane Courier*, 16 March 1899, 6. Wragge, ten days after the disaster, wrote that, "all danger from a threatening disturbance 'Mahina' appears to have passed away."

⁷ H. A. Hunt, *Results of Rainfall Observations Made in Queensland*, Melbourne: Albert J. Mullett, Government Printer, 1914, 146.

⁸ "Meteorology of Australasia and Oceania", 6.

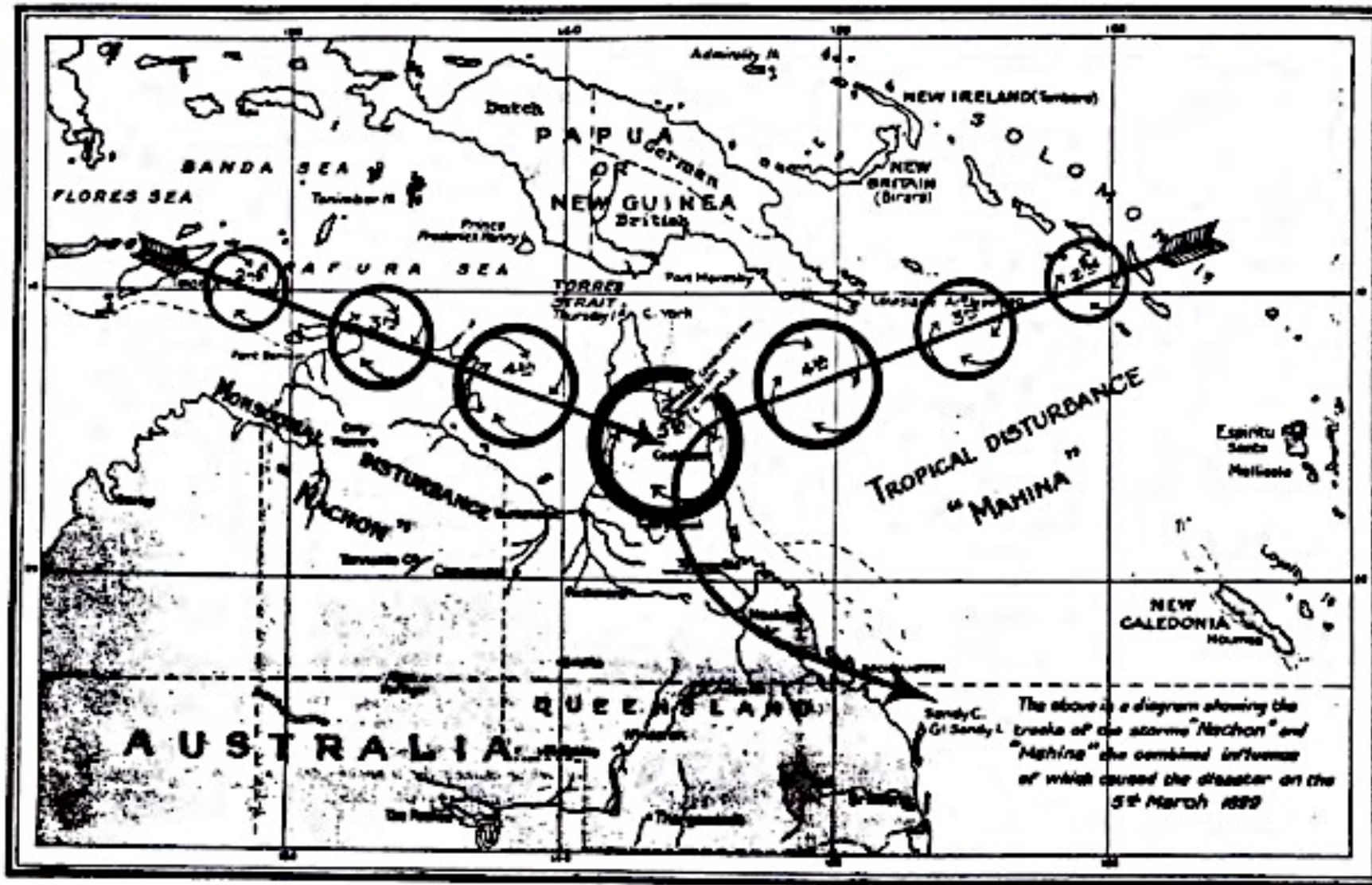


Figure 5.1 Wragge's 1899 cyclone track (Anonymous 1899, 15).

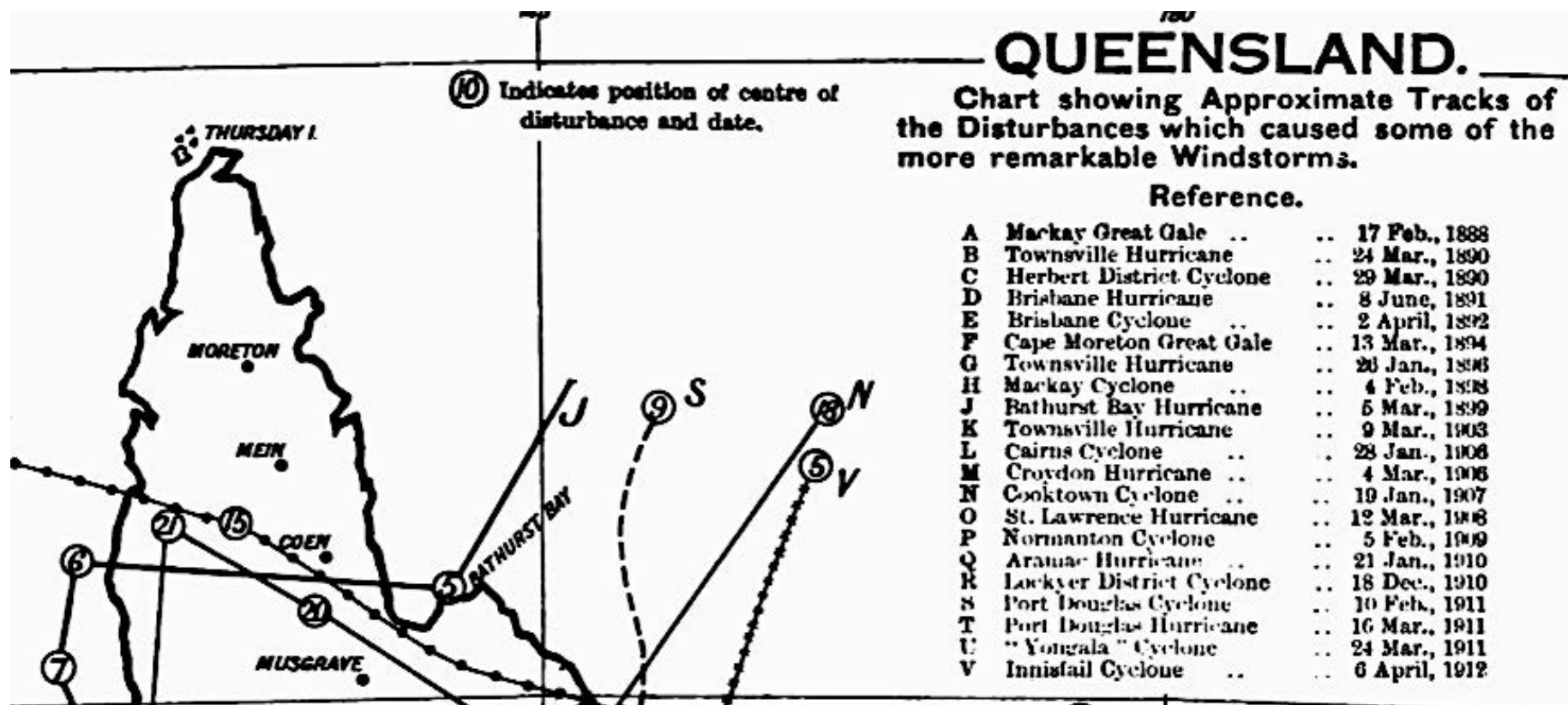


Figure 5.2 Government meteorologist H. A. Hunt in 1914 proposed the "Bathurst Bay Hurricane" track marked J. (Hunt 1914, 146).

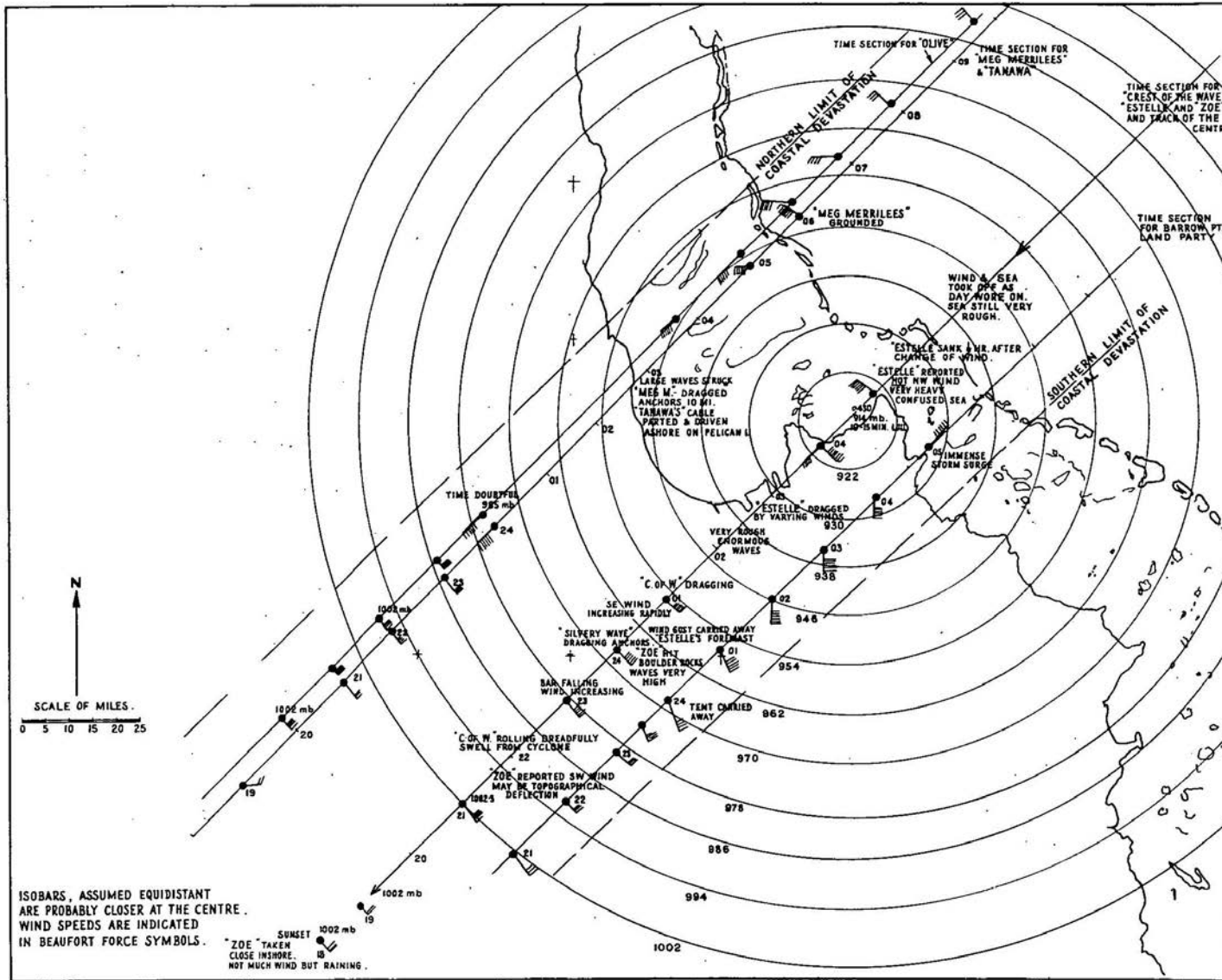


Figure 5.3 Whittingham's 1958 cyclone reconstruction (Whittingham 1958, 22).

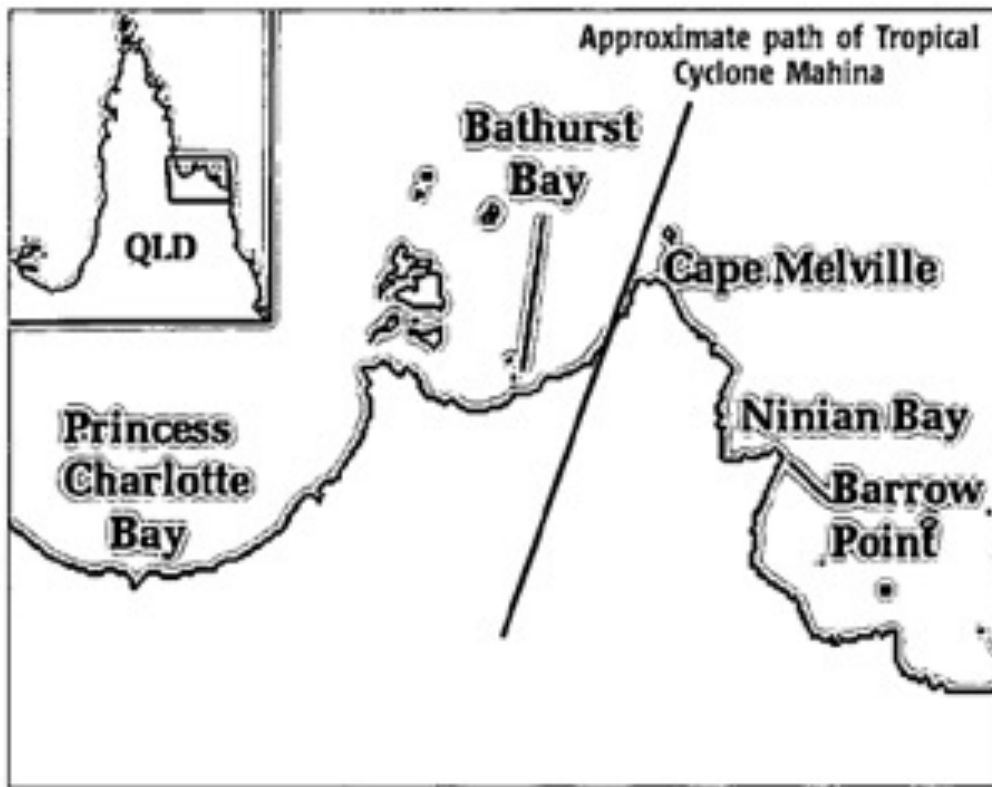


Figure 5.4 The estimated track of cyclone *Mahina* (Nott and Hayne 2000, 11).

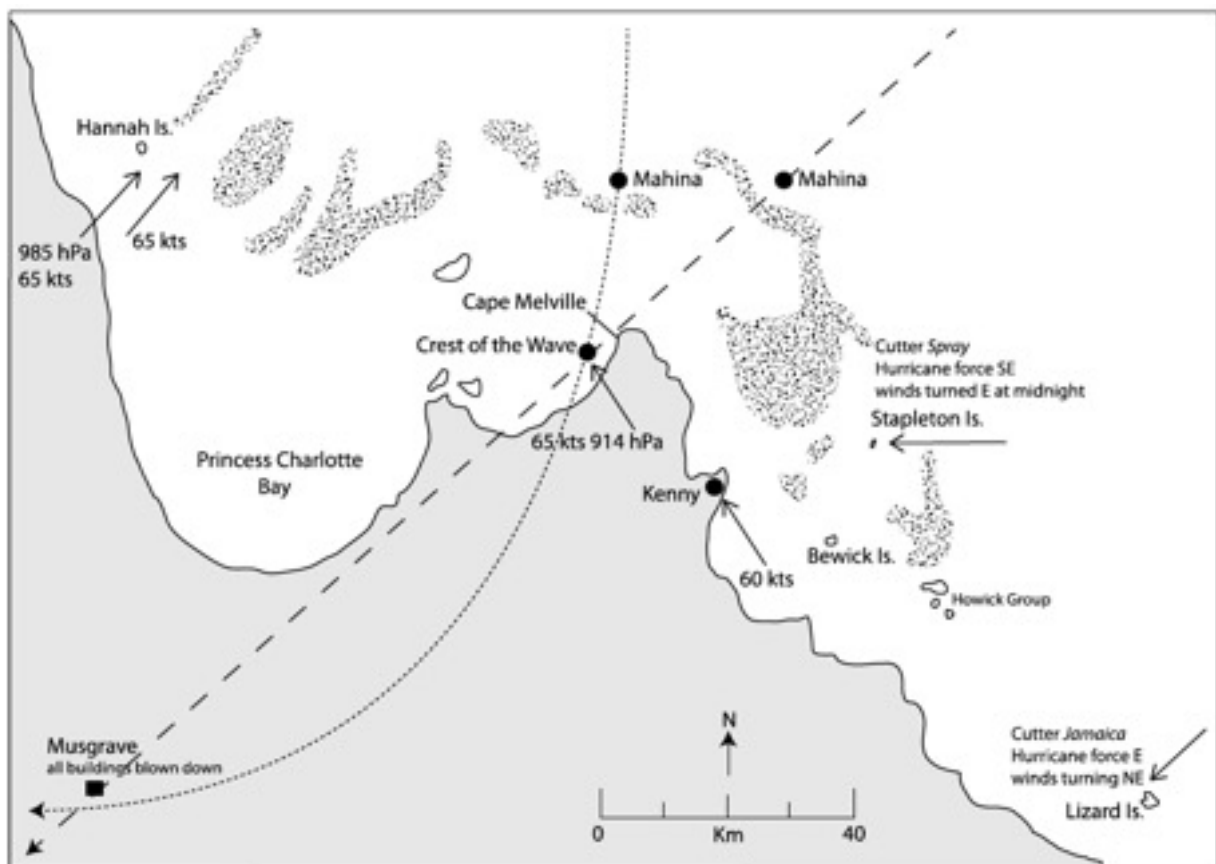


Figure 5.5 Two tracks considered for the 1899 cyclone (Nott et al. 2014, 759).

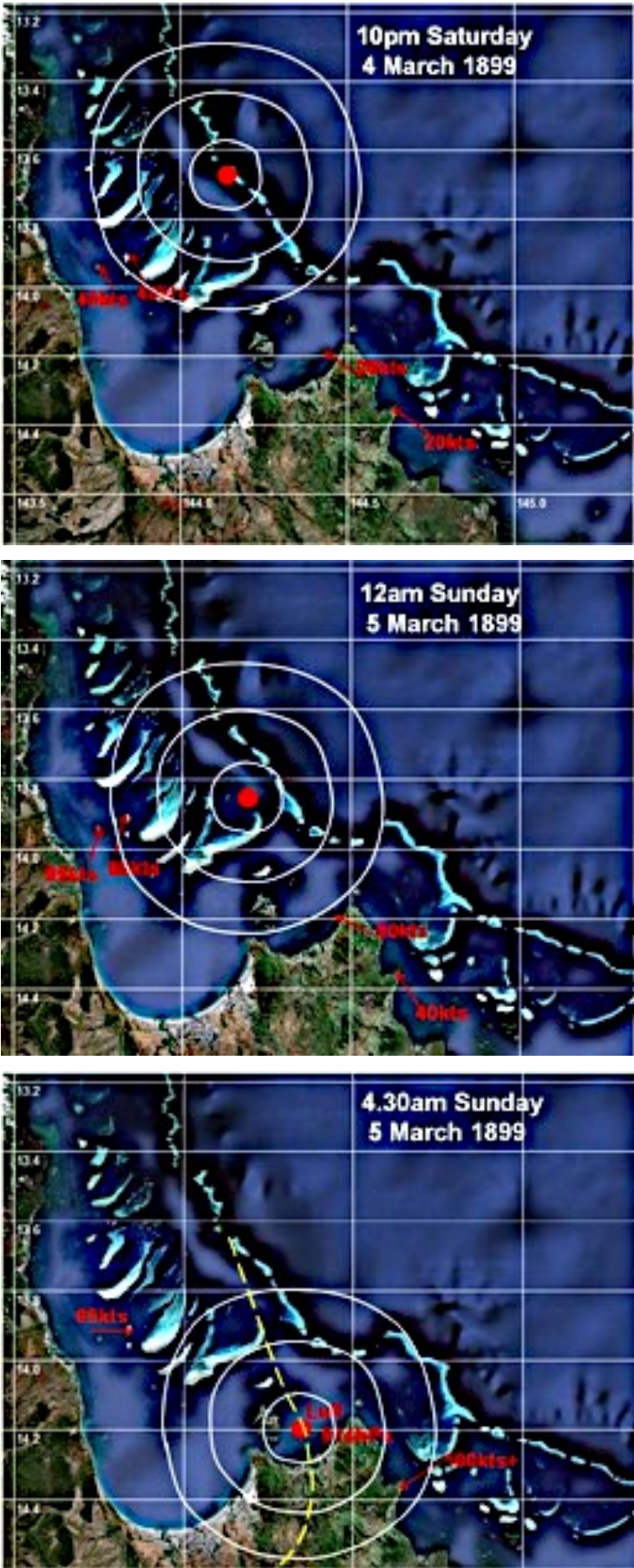


Figure 5.6 A northerly track for the 1899 cyclone (Callaghan 2011).

As with most attempts to reconstruct the cyclone's path and storm surge, this is based on data from the secondary source 1899 Outridge booklet and meteorologist Herbert E. Whittingham's 1958 analysis of that booklet. However, the change of wind direction near Pelican Island after midnight is also consistent with a cyclone approaching from the east. At 4.30 a.m., when the *Crest of the Wave* reported its lowest pressure, followed by a lull, the schooner was no longer in Bathurst Bay, but had dragged its anchor north 15 to 20 kilometres. The methodology also shows that the *Crest of the Wave* did report the wind increasing earlier in the night,⁹ and that Kenny was not in Ninian Bay, but 13 kilometres south at Wakooka Creek. This is not to criticise Callaghan, who used the best evidence available to him at the time, but to demonstrate that historical inquiry using an historical methodology can produce data that is more credible than data from secondary sources, and reveal different hypotheses for the tracks of cyclones.

The cyclone's track: a new hypothesis

As described in Chapter One, there have been efforts in the US since 1990 to review the National Hurricane Centers Hurricane Database (HURDAT), to extend its dataset of Atlantic hurricanes back into the 19th century.¹⁰ Scientists have applied algorithms to historic data to try to better establish the tracks of cyclones, to understand the factors influencing those tracks. It is not the intention of this thesis to apply the data produced by the historical methodology to tracking algorithms. That is the job of scientists. However, using simple models, some of the data, such as reports of damage and the observations of wind direction, can be shown to better indicate the cyclone's track. Part of the purpose of this thesis is to demonstrate how historical inquiry can produce new hypotheses for the cyclone's movement and behaviour. Understanding better the cyclone's track can also help corroborate other historical data, such as the observations of the world record storm tide. Previous scientific

⁹ William Field Porter, "The Great Hurricane at Queensland. A Struggle for Life. An Aucklander and His Wife and Child. Forcing the Blacks to the Pumps", *New Zealand Herald* (Supplement), 1 April 1899, 1. Porter wrote: "About nine p.m. it got worse and blew fearfully hard, the glass going down fast."

¹⁰ Christopher W. Landsea et al., "The Atlantic Hurricane Database Reanalysis Project", in Richard J. Murnane and Kam-Biu Liu (eds), *Hurricanes and Typhoons: Past, Present and Future*, New York: Columbia University Press, 2004, 177–221; Christopher W. Landsea, "Counting Atlantic Tropical Cyclones Back to 1900", *EOS*, 88, 2007, 197–200.

studies have estimated the 1899 cyclone's track based on incomplete data and data discredited by this thesis. For these reasons, a simple model has been devised to estimate the 1899 cyclone's track using the better data.

Buys Ballot's Law states that, in the Northern Hemisphere, the centre of a cyclone is on the observer's left when facing downwind.¹¹ In the Southern Hemisphere, the reverse is the case, with the centre on the right with the wind at the observer's back. The rule suggests that the centre of the cyclone can be estimated by drawing a line perpendicular to wind direction, but this assumes that winds revolving around the centre of cyclone follow gradients of atmospheric pressure (represented on weather maps by isobars) that are circular, whereas the winds tend to cross the isobars as they spiral in towards the eye wall. To estimate better the centre of a cyclone from historical observations I have applied Buys Ballot's Law and accounted for inflow (the angle of deviation of the wind from the pressure gradient) which usually varies in cyclones between 15 and 30 degrees and reduces to zero in the eye wall. A study of 18 US hurricanes in 2012 found the mean inflow angle was 22.6 degrees.¹² (Some Australian models assume an angle of inflow in tropical cyclones of 25 degrees, based on a 1973 US study.¹³ For the purposes of this hypothesis I will use the more recent study and assume the inflow to be 22.6 degrees outside the eye wall, and zero in the eye wall.) I have also considered a margin of error for the practice used in 1899 of describing wind direction as compass bearings. The difference between south-south-east and south-east, for example, is 22.5 degrees. If a ship's captain described the wind as being from the south-south-east, he meant it was more likely to be from this direction than from south or south-east, implying a margin of error associated with those compass point observations of 11.5 degrees. Combining several observations should indicate a position for the cyclone on which the observers agree, in an area where the observations and their margins of error

¹¹ H. E. Willoughby and M. Chelmon, "Objective Determination of Hurricane Tracks from Aircraft Observations", *Monthly Weather Review*, 110, 1982, 1298. Dutch meteorologist Christophorus Buys Ballot proposed the rule for finding the centre of storms in 1857.

¹² Jun Zhang and Eric Uhlhorn, "Hurricane Sea Surface Inflow Angle and an Observation-Based Parametric Model", *Monthly Weather Review*, 140, No. 11, 2012, 3587. The authors conclude: "The mean inflow angle in hurricanes is found to be $-22.6^\circ \pm 2.2^\circ$ (95% confidence)."

¹³ Bruce Harper, T. Hardy, L. Mason, L. Bode, I. Young, and P. Nielsen, *Queensland Climate Change and Community Vulnerability to Tropical Cyclones, Ocean Hazards Assessment. Stage 1 Report*, Department of Natural Resources and Mines, Queensland, Brisbane, 2001, 45.

overlap. Ideally (although this is not always possible because of gaps in observations at the time) triangulation, from three observations north and south of the cyclone's path at approximately the same time, will provide a more accurate estimate of the cyclone's location. Using Appendix 2 (Observations Relevant to Remodelling the Cyclone), three timeframes are used as examples to estimate the positions of the cyclone over time, and therefore the probable track. The observations taken when the cyclone is closest to the coast, and therefore to the observers, are likely to give a more accurate position.

The most reliable observations at 11 p.m and. 11.30 p.m. on 4 March 1899 were from the schooner *Aladdin* in the Claremont Islands, the *Crest of the Wave* in Bathurst Bay, and Constable Kenny at Wakooka Creek (Figure 5.7).¹⁴ Other observations support the hypothesis, but are less reliable. (For example, an observation from the *North Wales* near Noble Island, east of Wakooka Creek, comes from a passenger.) The *Aladdin* at 11 p.m. reported the wind from the south-west, the *Crest of the Wave* the wind veering to the south, and Kenny at Wakooka Creek the wind from the south-south-east (see Appendix 2). The reading of the *Crest of the Wave* is credible, although the winds striking the mountains at Cape Melville may have been deflected. To satisfy all credible observations, the hypothesis puts the centre of the cyclone about 60 kilometres east-north-east of Cape Melville at 11.30 p.m. on 4 March (Figure 5.7).

¹⁴ It is impossible to determine precisely the cyclone's position from the observations because the estimates, although the best evidence, are approximate, but a position can be established for the purposes of the hypothesis using margins of error and, where possible, triangulation.

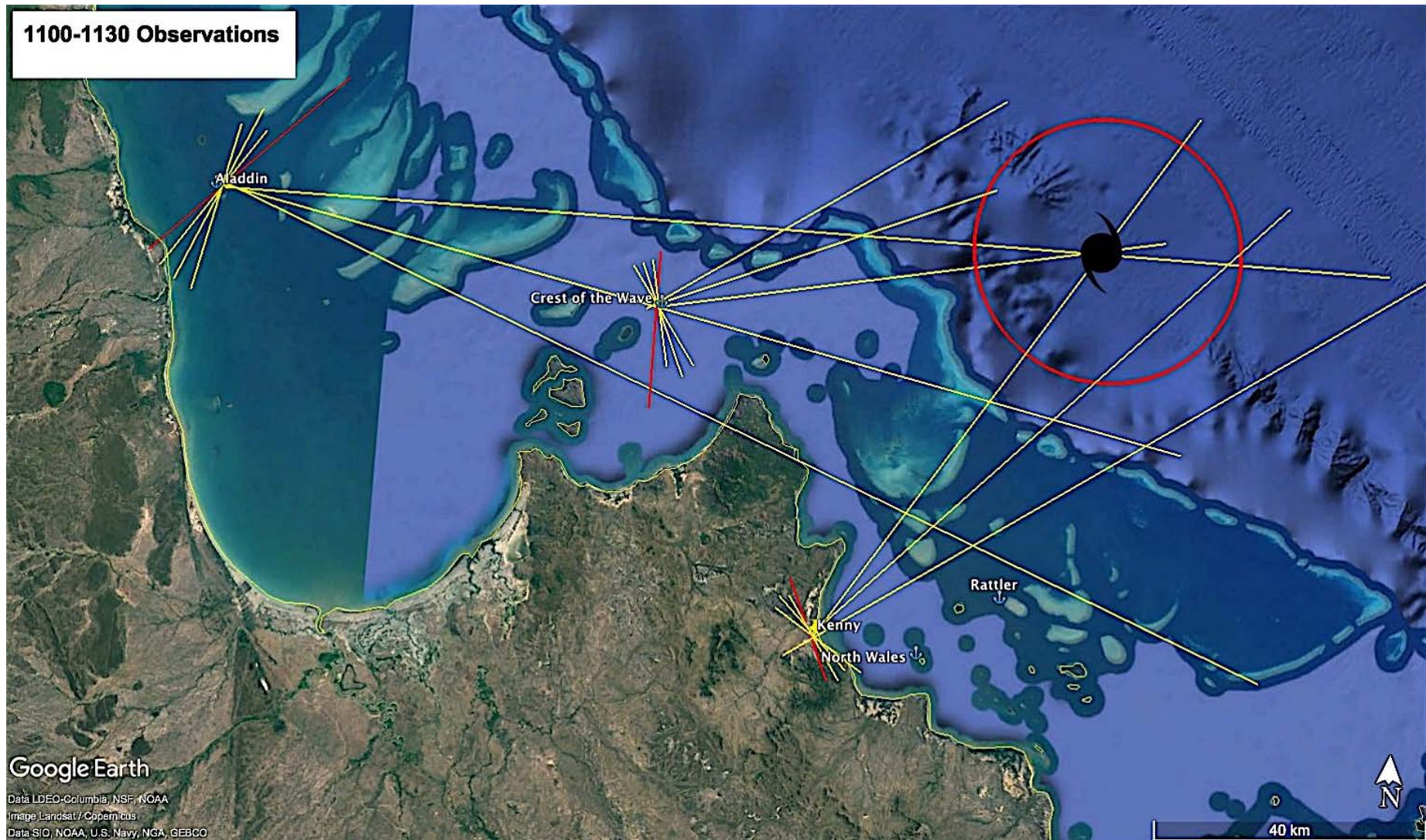


Figure 5.7 The approximate position of the 1899 cyclone at 11.30 p.m. The red lines at the observation points show wind direction. The short yellow lines are the tangents to the pressure gradients (with two lines showing maximum margins of error either side), found by allowing for angle of inflow of the wind. The centre of the cyclone will be along the long yellow lines which are perpendicular to the tangents (Google Earth).

The observations from the schooner *Meg Merrilies* and the cutter *Spray* just after midnight suggest the cyclone was 40 kilometres east-north-east of Cape Melville (Figure 5.8). The *Rattler*'s observation before midnight was that the wind was south-east, which puts the cyclone on the same track, but further east, as would be expected for an earlier time. The *Rattler* is reported to have sunk about midnight. The *Spray* after midnight was aground on Stapleton Island and appears to be close to the eye wall where the angle of wind deviation from the pressure gradient would be negligible or zero. Again, the observations give only an approximation of the cyclone's centre, but they agree on a position that puts the *Spray* just south of the eye.¹⁵

At 4.30 a.m. on Sunday (Figure 5.9), Captain Porter aboard the *Crest of the Wave* recorded a low pressure of 26inHg (880hPa).¹⁶ This was recorded not in the calm eye, but in the eye wall of the cyclone. He wrote to his father the next day that, "about 4.30 a.m. ... the barometer was down to 26. Then came a lull."¹⁷ The Outridge booklet described the lull as lasting 10 to 15 minutes,¹⁸ and Porter told his father it was followed by the wind from the north-west. Porter could have only recorded these observations at the top of the cyclone's eye, inside the calm eye, but near the eye wall.

¹⁵ The estimated position of the cyclone is not just a matter of having observations in agreement at a specific time, but also of them being consistent with observations at other times. For example, the most southerly possible interpretation of the *Meg Merrilies* observation at midnight has the cyclone already crossing the coast south of Cape Melville, which is inconsistent with all later observations, including the *Crest of the Wave*'s 4.30 a.m. observation of the eye, the area of destruction, and the arrival of the storm tide. All credible observations over time can be compared to increase the level of confidence in the cyclone's track.

¹⁶ This was later revised to 4.45 a.m. and 27inHg in "Log *Crest of the Wave*", in John Douglas, "Report of the Government Resident at Thursday Island for 1898", *QVP*, 1, 1899, 100. That report described "a short lull." The earliest primary sources, including Porter's letter to his parents, are the more credible for the lowest recorded pressure.

¹⁷ Porter, "The Great Hurricane at Queensland. A Struggle for Life", 1.

¹⁸ Anonymous, *The Pearling Disaster, 1899: A Memorial*, Brisbane: Outridge Printing Company, 1899, 26.

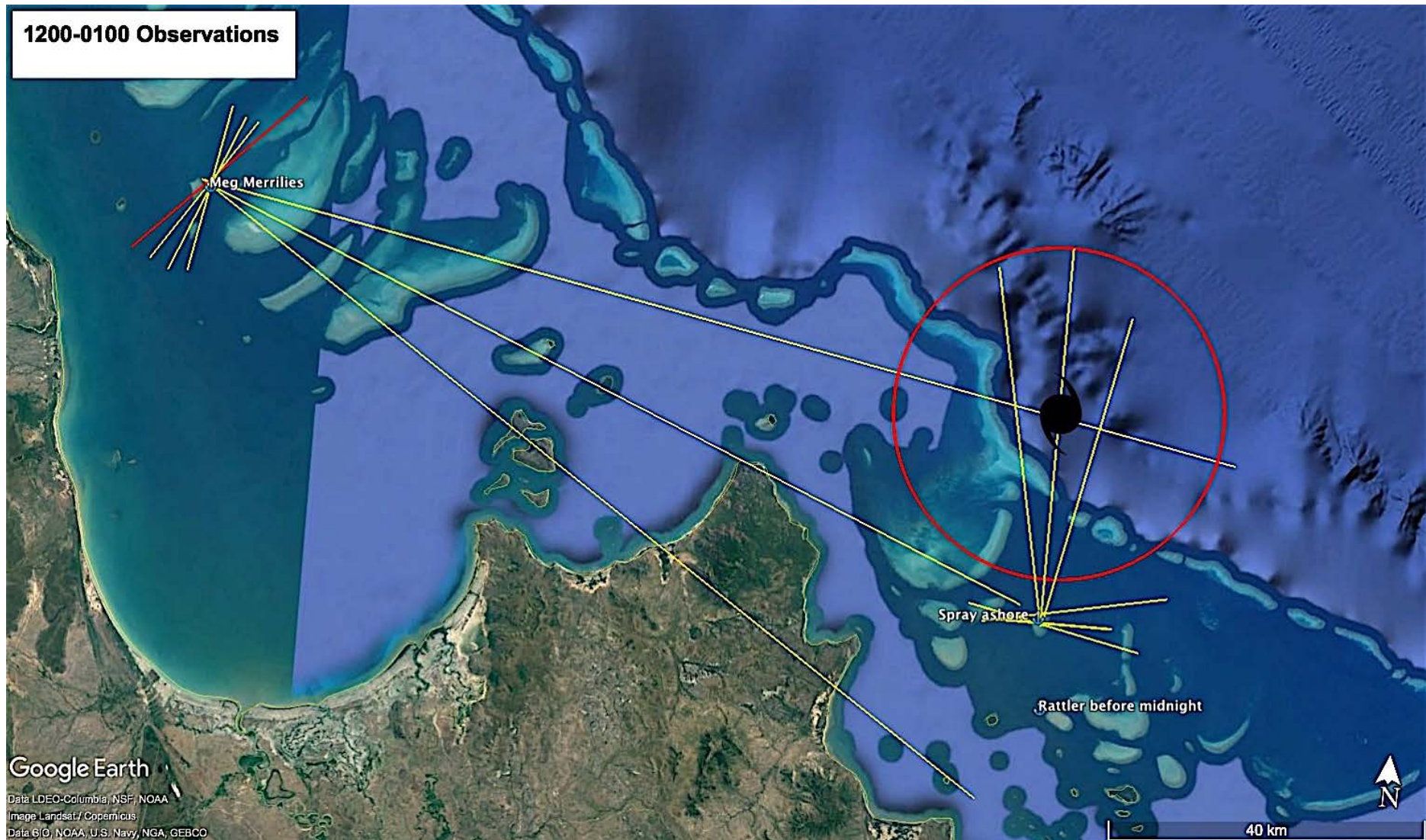


Figure 5.8 The approximate position of the 1899 cyclone at 1 a.m. (Google Earth).



Figure 5.9 The approximate position of the 1899 cyclone at 4.30 a.m. (Google Earth).

About 50 kilometres south-east of Porter, on the other side of the centre, Kenny did not experience the calm eye, suggesting the eye to his north was less than 50 kilometres wide. Kenny at 5 a.m. reported the wind shifting north-east. Also by 5 a.m., Porter was back in the eye with north-westerly winds.¹⁹ The angle of inflow in the eye wall is negligible, the wind, having been drawn to the centre, now rotating in a circle. The diameter of the cyclone's eye appears to have been no more than 50 kilometres, but probably no less than 40 kilometres, if it was to pass between the *Crest of the Wave* and Kenny at Wakooka Creek, but also place the schooner and Kenny in or near the eye wall at 5 a.m.²⁰ The eye wall also appears to have started crossing the Cape after 3 a.m., which coincides with the swamping of several luggers near the tip of the Cape between 3 a.m. and 4 a.m.²¹ Porter's 4.30 a.m. observation puts the eye's centre over Cape Melville at 4.30 a.m. The estimated positions of the cyclone at 11.30 p.m., 1 a.m., and 4.30 a.m. can therefore be shown. For this hypothesis, the cyclone's calm eye is 40 to 45 kilometres in diameter and the cyclone may have been travelling about 12 kilometres an hour west-south-west when it crossed the coast. (It travelled 60 kilometres in five hours between 11.30 p.m. and 4.30 a.m.) The Thursday Island Government Resident John Douglas toured the area on 12 March and described the damage to vegetation:

Bewick Island, or Howick No. 5 [sic], appeared to be the southern limit of the cyclone. At Newton Island, south of Bewick, there appeared to us no indication of the storm, the vegetation being untouched, whereas between Bewick and Hannah Island everything in the shape of trees or grass had been swept clean.

Hannah Island in 1898 was a low island two miles in circumference "covered with bushes and has a few trees."²² It is not clear if Douglas was describing Hannah

¹⁹ The cutter *Spray*, 30 kilometres north-east of Kenny's position, did not report the calm eye, which passed to its north. Two men, Albert and Moses, whose lugger *Little Bill* was wrecked at Boulder Rocks at the tip of Cape Melville around midnight, tried to swim for the Cape, but were blown north-east by a south-westerly wind onto Pipon Island, suggesting the centre of the approaching eye would pass south of them.

²⁰ A. R. Vidgen, "Northern Hurricanes", *Telegraph* (Brisbane), 17 April 1899, 5. Vidgen paraphrased Kenny: "At 5 a.m. [the wind] shifted to north-east, and if possible blew harder than ever, with torrents of rain."

²¹ "The Late Hurricane. Letter from Mr. James Clark", *Brisbane Courier*, 15 May 1899, 7. These luggers sank otherwise undamaged and were later salvaged.

²² Charles B. Yule and G. A. Browning, *Great Britain, Hydrographic Department, Australia Directory. Compiled Chiefly from Various Surveys Made by Order of the Lords Commissioners of the Admiralty Volume ii*, 5th edition, London: Hydrographic Office, Admiralty, 1898, 386.

Island also being swept clean, but the area of destruction was south of Hannah Island and in a strip about 90 kilometres wide that followed the cyclone's track. It was particularly marked on the southern side of the cyclone, from Cape Melville to Cape Bowen (Figure 5.10).²³ This is the area where the forward movement of the cyclone produced the strongest winds. As the cyclone moved inland it weakened and slowed, but in the early hours of 6 March it was powerful enough to destroy most buildings in the town of Musgrave, 130 kilometres west-south-west of Cape Melville, and level the telegraph line for 50 kilometres north of the town and an unknown distance south,²⁴ suggesting the cyclone maintained its track west-south-west for at least 20 hours after crossing the coast. The cyclone appears to have eventually swung south and shipping reports suggest it may have crossed the coast back into the Coral Sea north of Townsville around 9 March.²⁵

²³ See James P. Terry, *Tropical Cyclones Climatology and Impacts in the South Pacific*, New York: Springer, 2007, 69. "The maximum rise in sea level from surge and wind-driven waves is felt from 20 to 50 km to the left of the storm track as the cyclone passes." This corresponds with the area of destruction described ashore in 1899.

²⁴ "Late Bowen Cyclone", *Brisbane Courier*, 14 March 1899, 4.

²⁵ "Hurricane Off Cooktown", *Capricornian* (Rockhampton), 18 March 1899, 25. "On Thursday evening [9 March] Captain Haswell [of the steamer *Kasuga Maru*] found it necessary to anchor all night under the lee of Palm Islands, owing to the rapidly falling glass."

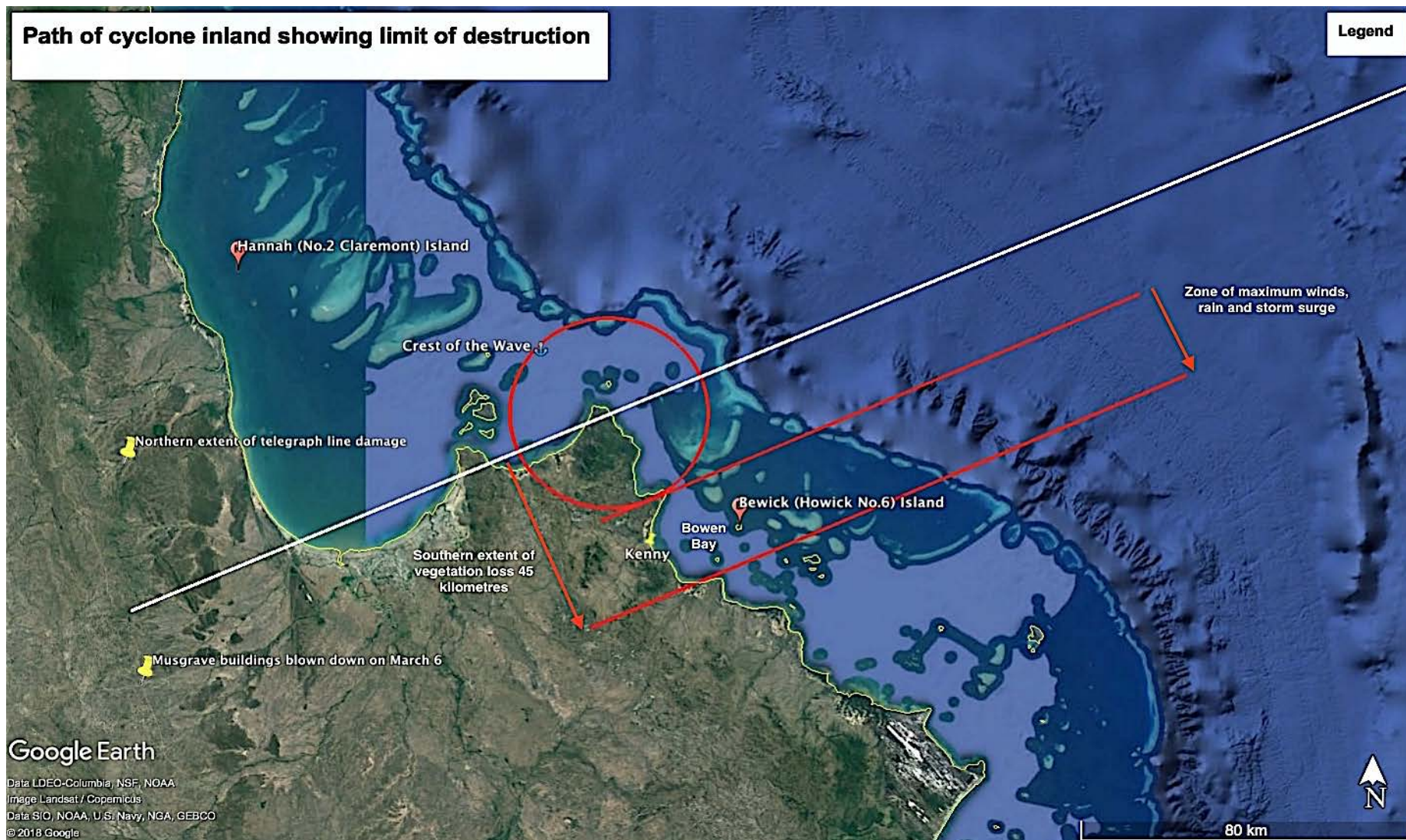


Figure 5.10 The 1899 cyclone's track, idealised to satisfy all credible observations. The white line represents its west-south-westerly track. The area between the two red lines south of the eye represents the zone of strongest winds and rain, and area of highest predicted storm tide (satellite image Google Earth).

The storm tide

There have been attempts to put a more accurate value on the height of the storm tide associated with the 1899 cyclone (Table 5.1). Many of these studies cite each other and their sources can be traced back to the 1899 Outridge booklet.

Source	Surge	Storm tide	Surge + Tide + Waves + Run-up (m)	Location
Anonymous 1899 ²⁶		40ft (12.192m)		Barrow Point
Whittingham 1958 ²⁷	43ft (13.106m)			Barrow Point
Nelson 1975 ²⁸	13.7m			Barrow Point
Granger and Smith 1995 ²⁹			14m	Barrow Point
Harper 1999 ³⁰	14m			Bathurst Bay
Nott and Hayne 2000 ³¹		5m	Higher than storm tide	Ninian Bay
WMO 2006 ³²	13m			Bathurst Bay
Terry 2007 ³³	13m			Bathurst Bay
Disaster Resilience Knowledge Hub 2019 ³⁴	14.6m			Bathurst Bay
Disaster Resilience Knowledge Hub 2019 ³⁵	13m			Ninian Bay
Nott et al. 2014 ³⁶	9.1m		13m	Ninian Bay
Masters 2014 ³⁷			13–14.6m	Bathurst Bay

Table 5.1 Storm surge and tide levels attributed to cyclone *Mahina* (adapted from Hal F. Needham, Barry D. Keim, and David Sathiaraj, "A Review of Tropical Cyclone-Generated Storm Surges: Global Data Sources, Observations, and Impacts", *Reviews of Geophysics*, 53, No. 2, 2015, 570.).

²⁶ Anonymous 1899, 18.

²⁷ H. E. Whittingham, "The Bathurst Bay Hurricane and Associated Storm Surge", *Australian Meteorological Magazine*, 23, 1958, 32.

²⁸ R. C. Nelson, "Tropical Cyclone Storm Surges in Australia 1880 to 1970", in *Second Australian Conference on Coastal and Ocean Engineering, 1975: The Engineer, the Coast and the Ocean*, Sydney: Institution of Engineers, Australia, 1975, 196.

²⁹ K. J. Granger and D. I. Smith, "Storm Tide Impact and Consequence Modelling: Some Preliminary Observations", *Mathematical and Computer Modelling*, 21, No. 9, 1995, 15.

³⁰ Harper 1999, 4.

³¹ Jonathan Nott and Matthew Hayne, "How High Was the Storm Surge from Tropical Cyclone Mahina? North Queensland, 1899", *Australian Journal of Emergency Management*, 15, No. 1, Autumn 2000, 13.

³² WMO, "World Weather/Climate Extremes Archive", <https://wmo.asu.edu/content/tropical-cyclone-largest-storm-surge-associated-tropical-cyclone> (accessed 21 February 2019).

³³ Terry 2007, 67.

³⁴ Australian Institute for Disaster Resilience, "Cyclone Mahina 1899."

³⁵ Ibid.

³⁶ Jonathan Nott, Camilla Green, Ian Townsend and Jeffrey Callaghan, "The World Record Storm Surge and the Most Intense Southern Hemisphere Tropical Cyclone: New Evidence and Modeling", *Bulletin of the American Meteorological Society*, 95, No. 5, May 2014, 765.

³⁷ Jeffrey Masters, "World Storm Surge Records", Weather Underground wunderground.com, 2014, http://www.wunderground.com/hurricane/surge_world_records.asp (accessed 18 March 2019).

All are interpretations of one uncorroborated observation made by Kenny; that he was camped on “a ridge fully 40 feet above sea level and about half a mile from the beach” when “an immense tidal wave swept in shore and reached waist deep on the ridge” just after the wind veered to the north-east after 5 a.m.³⁸ It is significant that all the reports listed can be traced to the same source and that there are eight different answers to the question, “How high was the storm surge/storm tide?” The original primary source for the data is not listed in the table and, apart from Nott and his colleagues, it is not cited by the authors. However, the impression given by the inclusion of the data in international and national databases, and in the scientific literature, is that the source is credible even though there is no evidence it had been tested. Even when the authors raise doubts about the data, there appears to have been no attempt made, apart from Nott and his colleagues, to find the original source for the data and test its credibility.

Three scientific field trips to the area, though, have been conducted to look for corroborating physical evidence such as corals, shells and debris that might have been preserved at high elevation by waves from the cyclone. Nott and his colleagues looked for marine deposits in Ninian Bay and in a portion of Bowen Bay adjacent to the Barrow Point headland two kilometres south.³⁹ In 2000, Jonathon Nott and Matthew Hayne had focussed their search for physical evidence on this northern section of Bowen Bay. In 2010, an honours student at James Cook University’s (JCU) School of Earth and Environmental Sciences, Camilla Green, conducted a field study at Ninian and Bowen bays, paying close attention to false indicators such as Aboriginal shell middens. Green also used sophisticated models to simulate storm tides in Ninian and Bowen bays from an 880hPa cyclone approaching from the north-east (Figure 5.11).

While no debris was found at a height that could confirm Kenny’s description of the storm tide, models showed inundation to a height of 13 metres was theoretically possible by a combination of storm tide and wave setup. One model was of a cyclone with a minimum central pressure of 880hPa and a 30-kilometre radius of

³⁸ Vidgen, “Northern Hurricanes”, 5.

³⁹ Nott et al. 2014, 759.

maximum winds (the distance between the cyclone's centre and the band of strongest winds around it) approaching the coast from the north-east and crossing at Cape Melville. It showed that such a scenario could produce a storm surge in the southern part of Bowen Bay of 8.279 metres around 4 a.m.⁴⁰ (The simulation makes assumptions about the angle of approach of the cyclone to the coast, in this case from the north-east. As mentioned, the hypothesis of my thesis is based on evidence that the cyclone approached from the east-north-east, with the strongest winds blowing directly into Bowen Bay.) The simulated height in Green's paper is based on a point further south in Bowen Bay than Kenny observed the storm tide, and outside the 30-kilometre radius of maximum winds (Figure 5.11. Kenny's camp was midway between the points marked NB and XX). Kenny's camp can now be shown in my thesis to be 30 kilometres south of the cyclone's centre and therefore in the path of the strongest winds in that particular model (Figure 5.11).



Figure 5.11 Storm surge simulation sites and nominal north-east cyclone track from Green 2011. The site of Kenny's camp was not known at the time, and has been added to Green's map to show that it was half-way between the simulation points, at the head of Bowen Bay (adapted from Green 2011, 70).

⁴⁰ Camilla Green, *Quantifying the Height of the Storm Surge of Tropical Cyclone Mahina, Bathurst Bay, Qld, 1899*, Honours Thesis for the Degree of Bachelor of Planning, JCU, Cairns, June 2011, 74.

Nott and his colleagues in 2014 had placed Kenny's position at Ninian Bay for several reasons. It matched Kenny's description of having reached Barrow Point (his destination presumed to be the Barrow Point headland that forms the eastern part of Ninian Bay), scientific models showed that a north-easterly track for a cyclone with a central pressure of 880hPa produced the highest storm surge in Ninian Bay (9.1 metres), and a sand ridge of 6.6 metres behind the beach could be shown to be wave-constructed. The paper concluded that a storm tide of 9.75 metres is possible in Ninian Bay and that the remaining 3.25 metres of water at this site may be explained by waves and wave run-up.⁴¹ The paper did not explain the other significant observation of Kenny; that the sea flooded "between two and three miles" (3.2 to 4.8 kilometres) inland. This inundation is not possible at Ninian Bay, because there is no point behind the bay where the land remains below 20 metres further than half a kilometre inland. As a co-author of Nott et al., and in the process of further historical research for this thesis, I have now placed Kenny's position more precisely, at the mouth of Wakooka Creek, 13 kilometres south of Ninian Bay. This is based on an analysis of historical documentary evidence using the historical methodology described in Chapter One, followed by a visual survey of the site (see Chapter Three). The physical evidence observed at the site includes shells and stones that Daniel Gordon, a Traditional Owner and Cape Melville National Park Ranger, believes are evidence of an Aboriginal campsite. Geoscientific and archaeological surveys should be conducted before any conclusions can be made as to whether this corroborates any historical or geoscientific evidence. However, a hypothesis based on documentary evidence can be made explaining Kenny's choice of this site to camp on the evening of 4 March (see also the description of the site in Chapter Two).

The world record storm tide: A new hypothesis

There have been three approaches to validating the height of the world record storm tide associated with the 1899 cyclone. The first approach was to search the historical archives for documentary evidence, the second to search for physical evidence for the storm tide, and the third to use available data to model the storm tide using the

⁴¹ Nott et al. 2014, 764.

GCOM2D storm surge model.⁴² The world record storm tide height of 13 metres could not be validated by physical evidence, and therefore the data available to the storm surge model is restricted. New historical evidence and data based on the findings of this thesis form the basis of a new hypothesis that will help scientists better determine the height and nature of the storm tide.⁴³ (The new data has not yet been applied to the GCOM2D model.)

Questions remain about the validity of Porter's observation of 26inHg (880hPa) and Kenny's observation of being on a ridge 40 feet (about 12 metres) above sea level when a "tidal wave" came up to his waist. The atmospheric pressure recorded by Porter does not represent the cyclone's central pressure because it was not recorded in the cyclone's eye. The atmospheric pressure is lowest in the eye of a cyclone. Porter was under duress when reading his barometer because he believed his schooner was sinking. Although there is evidence that such a low barometric pressure was not believed at the time, the reason why the reading was later revised upward is unclear. Nevertheless, the methodology shows that the observations of Porter and Kenny are credible and remain the best evidence for the lowest pressure and the height of the storm tide. The two observations partly support each other (the height of a storm tide being a function of the cyclone's central pressure).⁴⁴ Green's modelling, without knowing Kenny's position, showed that a cyclone of 880hPa approaching from the north-east could produce a storm surge of 8.279 metres in the southern part of Bowen Bay and 9.1 metres in Ninian Bay, and the remaining three to four metres could be accounted for by wave setup. This modelling was based on several assumptions including the angle of approach of the cyclone to the coast. It does not therefore provide substantial evidence for the storm tide being as high as Kenny observed. Without physical evidence of debris for Kenny's observation, the only other approach was to interrogate further the historical records, which has been the objective of this thesis, and to find the ridge on which he stood so it can be measured.

⁴² Nott and Hayne 2000; Nott et al. 2014. The GCOM2D storm surge model was developed by Graeme D. Hubbert and Kathleen L. McInnes, "A Storm Surge Inundation Model for Coastal Planning and Impact Studies", *Journal of Coastal Research*, 15, No. 1, 1999, 168–185.

⁴³ Camilla Green emails to Ian Townsend and 18 August 2010 – 18 October 2011. Jonathan Nott emails to Ian Townsend 14 December 2012 – 7 February 2013. Nott et al. 2014 and Green 2011 used and acknowledged historical data provided by me in their papers.

⁴⁴ Green 2011, 74.

How good an observer was Kenny?

The methodology showed that the newspaper article based on the letter describing Kenny's observation was credible. The letter's author, A. R. Vidgen, was at the time a trained clerk and the manager of the Burns Philp store in Cooktown.⁴⁵ His letter bypassed the telegraph and was handed directly to the *Telegraph* newspaper to be the source of what is today considered a world record storm tide. The letter can be judged credible, in that both Vidgen and Kenny were good witnesses close to the scene temporally and spatially, and had no reason to lie. This does not confer credibility to the data, however, and determining the height of coastal inundation Kenny witnessed depends on Kenny's skills as an observer and on measuring the ridge on which he stood.

Kenny, although in the Native Police, trained as a regular policeman and was a court witness in murder trials.⁴⁶ As an armed patrol officer, he was required to make daily judgements of distance and height, but it would be unreasonable to consider his estimates as being as accurate as scientists might wish. It would be understood by those to whom he reported that he could judge distance and height adequately, within a level of uncertainty. This would be necessary for firing his weapons and calculating the width of a stream or the distance of a landmark. In 1897, when he was a Native Police officer stationed at Highbury, on the Mitchell River west of Cairns, he described in a letter to a friend a duck hunting expedition: "I had a good look at the river, which was about 250 yards here almost dry"; "I would be able to get within 50 yards of the ducks"; "I crawled along very careful untill [sic] about 70 yards from my ducks."⁴⁷ In this case, he considered the distance of the ducks to be closer to 70 yards than 60 yards or 80 yards. Kenny described the shooting distance of ducks in units no smaller than 10, because he had no means of measuring accurately under the circumstances. Such estimates of distance would paint a picture for a fellow shooter, who would understand the difficulty.

⁴⁵ Graham Taylor, a relative by marriage to A. R. Vidgen, in an email to Ian Townsend, 13 June 2018.

⁴⁶ Police Staff File, John Martin Kenny, A/38868, QSA, ID563796.

⁴⁷ Jack Kenny, Highbury Police Camp, letter to a friend (Alex), 11 November 1897, (courtesy of Kenny's descendent Catherine Spooner).

Similarly, his description of the ridge being “fully 40 feet above sea level” cannot be taken as an exact measurement. Kenny also qualifies his estimate of “40 feet” by the word “fully”, meaning “at least” or to emphasise that it is not an exaggeration,⁴⁸ but it does not mean exactly 40 feet. Kenny would not have measured the height above sea level and may not have meant mean sea level, but the observed level of the sea. There is no tidal gauge at Wakooka Creek. The normal tidal range at the two closest gauges today, Leggatt Island and Munro Reef, is 0.6 to 1.1 metres (between about two to 3.5 feet).⁴⁹ In describing “40 feet” above the sea, Kenny is suggesting the ridge was closer to 40 feet than to 30 or 50 feet and so there is a level of uncertainty implied; plus or minus five feet. For this hypothesis, Kenny was describing the height of the ridge as being between 35 and 45 feet (10.6 to 13.7 metres)⁵⁰ above the level of the sea that may have varied by as much as 1.1 metres (3.5 feet). Even if Kenny was a reasonable accurate observer, his description of the ridge being 40 feet (12.192 metres) high comes with a total level of uncertainty of plus or minus 2.5 metres, if he was estimating his height against an observed level of the sea, rather than the mean sea level (which, for Leggatt Island in 1899, was 1.531 metres).

Kenny’s estimate of his distance from the beach also needs qualification. Half a mile inland is 880 yards (or 804 metres). Kenny needed to judge distance accurately to shoot a target with a police issue Martini Henry carbine rifle⁵¹ which was, at the time, a weapon used for long range shooting competitions at targets up to 900 yards (823 metres or more than half a mile) distance.⁵² He used the term “half a mile” when describing the distance of his campsite from the beach, and this may reasonably have been considered within rifle shot of the beach, between 850 and 900 yards (777 and 823 metres). However, how did he define the “beach”? The exposed sand

⁴⁸ Vidgen “Northern Hurricanes”, 5.

⁴⁹ Tidal Unit, MSQ, provided tidal readings for 4 and 5 March 1899, on 23 August 2018.

⁵⁰ If Kenny had described 39 or 41 feet, the impression would be that he had measured the height of the ridge, which he was unlikely to have done. However, as the camp was almost certainly a regularly used patrol camp, his description would not have been based on an observation he made on 4 and 5 March, but on its use over years by the Native Police and possibly its qualities as a defensive position.

⁵¹ “Letter from John Martin Kenny to Inspector Durham at Cairns, 22 August 1904 (re lending his Martini Henry rifle to the Rev. Schwarz of Cape Bedford Mission)”, in Police Staff File, John Martin Kenny, A/38868, QSA, ID563796; Noelene Cole, “Battle Camp to Boralga: A Local Study of Colonial War on Cape York Peninsula, 1873–1894”, *Aboriginal History*, 28, 2004, 170. Cole writes: “Snider rifles were used [by the Native Police] throughout the frontier period and Martini Henry rifles were added from 1884.”

⁵² “The Rifle”, *NQR*, 28 November 1898, 58.

between the sea and the coastal dune varies depending on the tide. Because he could not see the beach, he may have estimated his distance from the higher coastal dune that he could see. His estimate that the “tidal wave ... stretched between two and three miles” (3.2 to 4.8 kilometres) inland is also a qualified observation. It was dark at 5 a.m. when the wave swept over the ridge.⁵³ However, by light he may have been able to make a better assessment of its inland extent and, as will be discussed, he had the opportunity a month later to view the debris inland. Without knowing where Kenny camped and being able to measure the ridge on which he stood, the height for the storm tide he witnessed cannot be corroborated.

Where did he camp?

The methodology shows Kenny’s original report to be credible. Kenny describes camping at 6 p.m., an hour before sunset, on 4 March on a patrol to the country of the Barrow Point people. As described in Chapter Two, there were two routes Kenny could have taken by horseback to reach Barrow Point, but only one route that stayed within his patrol territory and took him along the beach as he described (Figure 5.16. See also Figure 2.6 and Figure 2.7 in Chapter Two). This also appears to be the faster, less arduous, route, avoiding mountains. It follows the beach around Cape Bowen to the Northern Road of the Barrow Point people, and Kenny can be shown to have used the beach section of the route and the Northern Road on other occasions.⁵⁴ The Eight Mile Native Police camp near Cooktown, from which the Native Police patrolled the coast north to Cape Melville, was gazetted in 1874,⁵⁵ and by 1900 the Eight Mile patrol area was well defined.⁵⁶ Native Police had ridden north from the Eight Mile to Barrow Point for 25 years.⁵⁷ The only overland route to Barrow

⁵³ Geoscience Australia, “Sunrisenset Program, Version 2.2”, Geoscience Australia National Mapping Division, 2005. <http://www.ga.gov.au/bin/geodesy/run/sunrisenset>. Sunrise at Cape Melville on 5 March 1899 was at 6.24 a.m. See also Vidgen “Northern Hurricanes”, 5. Vidgen, paraphrasing Kenny, said that “it was not properly daylight till about 10 o’clock on Sunday morning.”

⁵⁴ Walter Roth, Northern Protector of Aboriginals, to Under Secretary, Home Office, “Report re Distribution of Gifts to Coastal Aboriginals”, 9 April 1899, HOM/A23, QSA, ID847561; Vidgen, “Northern Hurricanes”, 5.

⁵⁵ *Queensland Police Gazette*, 11, No. 98, (from information supplied by Jonathan Richards, “Native Police at the ‘Eight Mile’ Cooktown, North Queensland, 1874–1904”, in an email to Ian Townsend, 19 September 2006).

⁵⁶ “Native Police Camps”, Laura Police Station files 1900, Administration files (Police), A/41364, QSA, ID290072.

⁵⁷ Patrols also used boats when available.

Point within the Eight Mile patrol area follows the beach around Cape Bowen. The campsites along this route would have been well established by 1899, so that a party of five men could ride 30 to 40 kilometres a day and arrive before sunset at a known and carefully chosen campsite where there was enough water for their 10 horses. When Kenny described making camp on 4 March “about 6 p.m.”, an hour before sunset, this was a planned stop at a known campsite on a regular route. The only site that matches all aspects of Kenny’s description is a site near the mouth of Wakooka Creek (Figure 5.12). It is on a sand ridge that appears to be between nine and 13 metres above sea level and about half a mile (804 metres) from the beach, there is a higher ridge between the campsite and the beach, and it is the only place on the coast north or south of the Barrow Point headland where a 12 to 13 metre sea level rise could flood two to three miles (3.2 to 4.8 kilometres) inland.⁵⁸ It also fulfils the requirements of a campsite for a patrol of five men and 10 horses, being beside a patrol track Kenny can be shown to have used, with a fresh water lagoon next to it, and on a flat open ridgetop with grass for hobbled horses. After establishing the site of Kenny’s camp at Wakooka Creek from historical documents, the site was visited on a field trip in September 2018 and was found to also contain stone tools and seashells spread over a 300 metres length of flat ridgetop (Figure 5.12).⁵⁹

A subsequent archival search found oral history evidence linking the site to the Native Police. The Barrow Point people had abandoned a camp near the mouth of Wakooka Creek following a Native Police raid in December 1881.⁶⁰ (For a full description of the evidence, see Chapter Three.) Although a thorough search has yet to be conducted, no evidence of another camp near the mouth of Wakooka Creek was seen during the field trip in September 2018. Some of the qualities that made the site a good seasonal campsite for the Barrow Point people — being beside the Northern Road, next to fresh water, near food sources, cooled by the sea breeze, elevated, flat and open with wongai shade trees and soft sand — would also make it a convenient and attractive patrol camp for the Native Police.

⁵⁸ The sand ridge appears to be stabilised with vegetation, but there is evidence of erosion on a mound in the middle of the ridge, and it is possible the ridge height has changed since 1899.

⁵⁹ There is also evidence of a blaze on a tree near a two-metre high oval mound in the centre of the site. This type of structure is sometimes associated with Aboriginal grave mounds. No archaeological study of the site appears to have been done.

⁶⁰ John Haviland and Roger Hart, *Old Man Fog and the Last Aborigines of Barrow Point*, Bathurst: Crawford House Press, 1999, 36.



Figure 5.12 The sand ridge on which Kenny camped, half a mile from the beach. This is the only ridge that touches the Northern Road. In the wet season, swales between the ridges fill with water to become swamps, making access to the ridges closer to the coast difficult. Far fewer shells and no tools were observed on ridges closer to the sea (satellite image NationalMap).



Figure 5.13 The flat top of the sand ridge at Wakooka Creek on which Kenny camped on 4 March 1899 (photograph Ian Townsend).



Figure 5.14 Shells at the Wakooka Creek site (photograph Ian Townsend).

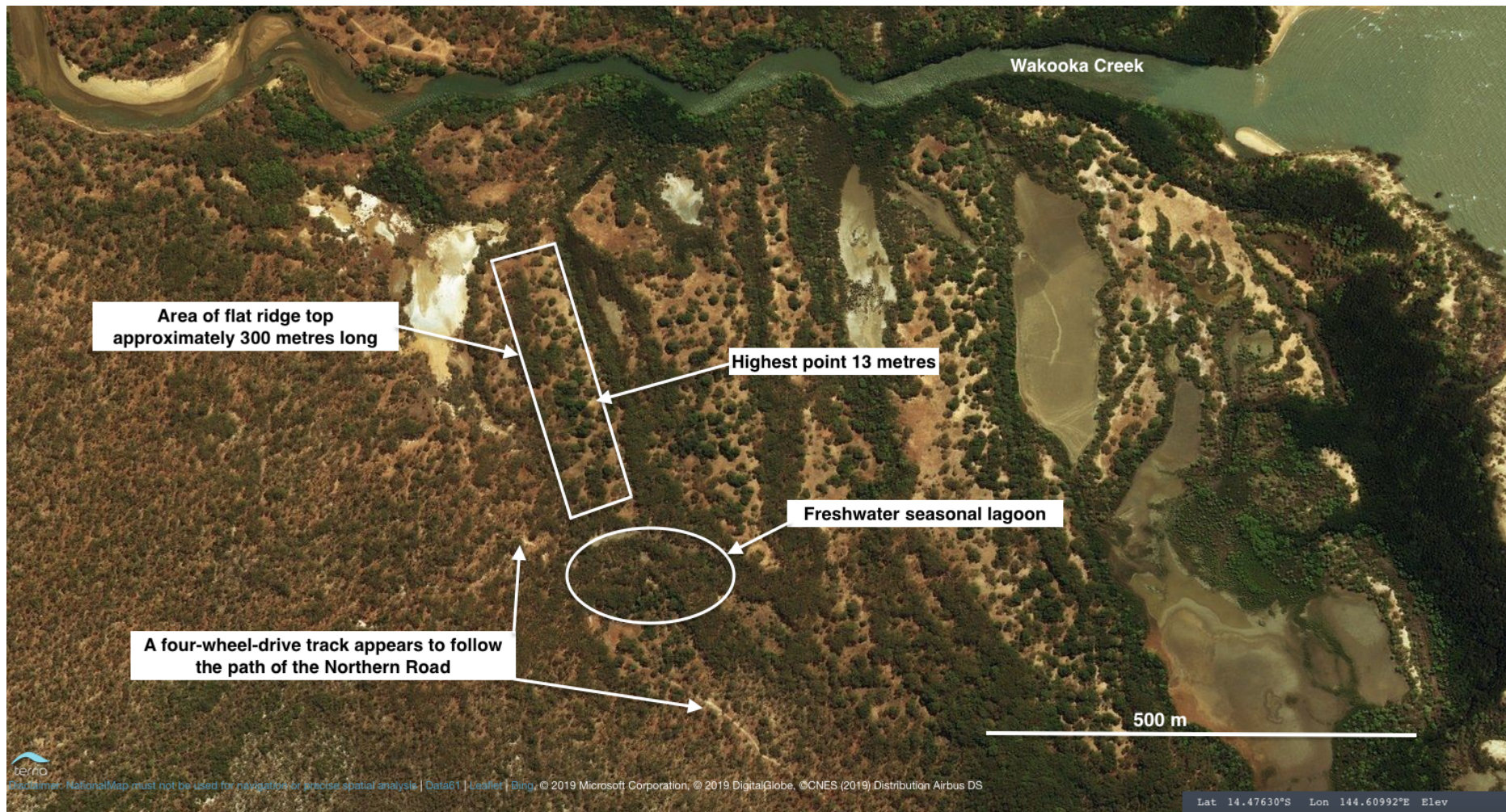


Figure 5.15 The ridge at Wakooka Creek closest to the Northern Road is 850 metres from a sandy beach at the creek mouth (satellite image NationalMap).



Figure 5.16 Satellite photo showing the catchment for Wakooka and Saltwater creeks, the site of Kenny's camp, and the patrol route (satellite image Geoscience Australia).

Wakooka Creek

The campsite is at the mouth of Wakooka Creek which, together with nearby Saltwater Creek, drains a 358-square kilometre catchment bounded by the Melville and the Altanmoui ranges (Figure 5.16). The lower slopes of the ranges near the

coast force the creeks to within 1.5 kilometres of each other before they enter the sea at the head of Bowen Bay. Before entering Bowen Bay, Wakooka and Saltwater creeks flow through an area of low salt pans and seasonal wetlands that are generally less than 10 metres above sea level behind a row of coastal sand ridges (see Chapter Two, Figure 2.10). The creeks cut through a 10 to 14-metre-high frontal sand ridge behind the beach. The Aboriginal track, described by Roth as the Northern Road in 1898⁶¹ and the “main track” in 1899,⁶² leaves the beach four kilometres north of Cape Bowen to avoid the mangrove-lined and tidal Wakooka and Saltwater creek estuaries, as well as several other estuaries further north. The track runs west to cross Wakooka Creek at a ford near the creek’s tidal limit, 2.4 kilometres inland, where the road turns north (Figure 5.16). On 3 April 1899, Roth described meeting Kenny at a pre-arranged rendezvous point “1.5 miles” (2.4 kilometres) inland on the “main track”. Roth, after being dropped by dinghy on the beach south of Wakooka Creek, picked his way west and described the landscape having been altered by the cyclone, seaweed hanging from the high branches of surviving trees, and the area smelling of dead fish.

While travelling in this direction, one could not fail noticing that the full force of the wind must here have come from the east, the timbers having nearly all fallen towards the west.⁶³

This meeting of Kenny and Roth, a month after the cyclone, puts Kenny back at Wakooka Creek where he would have been able to reassess his observations, including the inland extent of flooding from the sea. Kenny returned to Cooktown from the scene on 9 April on the cutter *Mystery*,⁶⁴ which appears to be when he described his experiences to the Burns Philp store manager A. R. Vidgen, who repeated it in a letter that was published in Brisbane on 17 April.

⁶¹ Walter Roth, “A Report to the Commissioner of Police on the Aboriginals Occupying the 'Hinterland' of Princess Charlotte Bay Together with a Preface Containing Suggestions for Their Better Protection and Improvement”, 30 December 1898, A/19899, QSA, ID1154345, 22.

⁶² Roth 1899, 1.

⁶³ *Ibid.*, 2.

⁶⁴ “The Northern Hurricane”, *Brisbane Courier*, 10 April 1899, 4.



Figure 5.17 The ford near the tidal limit of Wakooka Creek, 2.4 kilometres inland, the rendezvous point of Roth and Kenny on 3 April 1899. This is not a vehicular crossing and the deep tracks cut into the bank appear to be used today by feral pigs and cattle. The bank is two to three metres high and a 12-metre flood would reach the tops of the trees (photograph Ian Townsend).

The storm tide

Damaging storm tides are rare and their height and incursion inland is a function of the cyclone's wind strength and central pressure, and the bathymetry and topography of the site impacted. In 2005, *Katrina*, a Category Three hurricane,

produced a storm tide of 8.5 metres (28 feet) on the Mississippi Gulf coast.⁶⁵ In 1887, seven people are reported to have drowned when a storm tide from a cyclone flooded Burketown, 20 kilometres inland from the coast in the Gulf of Carpentaria.⁶⁶ In January 1918, a cyclone that struck Mackay reportedly produced a storm tide of more than three metres.⁶⁷ In March 1918, a storm tide demolished the Hull River Mission (now Mission Beach) near Innisfail and killed an unknown number of Aboriginal people. Ironically Kenny, who had survived the 1899 cyclone and was, in 1918, the mission's superintendent, had overseen the building of the superintendent's residence on a ridge above the mission, but was killed with his daughter by flying timber.⁶⁸ However, the most common cause of death in cyclones is drowning and storm tides can have a devastating effect on coastal communities.⁶⁹ Although the many factors that produce a storm tide are understood, the height of coastal inundation at any particular point can be difficult to predict. The height can depend on numerous factors interacting with each other, including the central pressure of the cyclone, the astronomical tide, the speed and direction at which the cyclone is moving, the speed of winds and the angle at which they strike the coast, the shape and topography of the coastline, the slope of the seabed, and terrestrial flooding.⁷⁰ Some of these factors, such as terrestrial flooding, can be difficult to model and are not considered in Green's GCOM2D model of storm tide height for the 1899 cyclone.⁷¹

The historical methodology in this thesis has been able to place Kenny at the mouth of Wakooka Creek on 4 and 5 March 1899. It has also been able to show that the best evidence for the cyclone's central pressure is 880hPa and that it approached the coast from the east-north-east. For this hypothesis, the observations of vessels show that the cyclone's eye was 40 to 45 kilometres wide and the cyclone was

⁶⁵ US National Hurricane Centre, "Storm Surge Overview", NOAA, <https://www.nhc.noaa.gov/surge/> (accessed 24 February 2019).

⁶⁶ Granger and Smith 1995, 17.

⁶⁷ Ibid. This figure is based on contemporary accounts and, as this thesis has shown, accounts cannot be considered credible until tested with an historical methodology.

⁶⁸ Beachcomber (E. J. Banfield), "The Storm Wind", *Townsville Daily Bulletin*, 27 March 1918, 3.

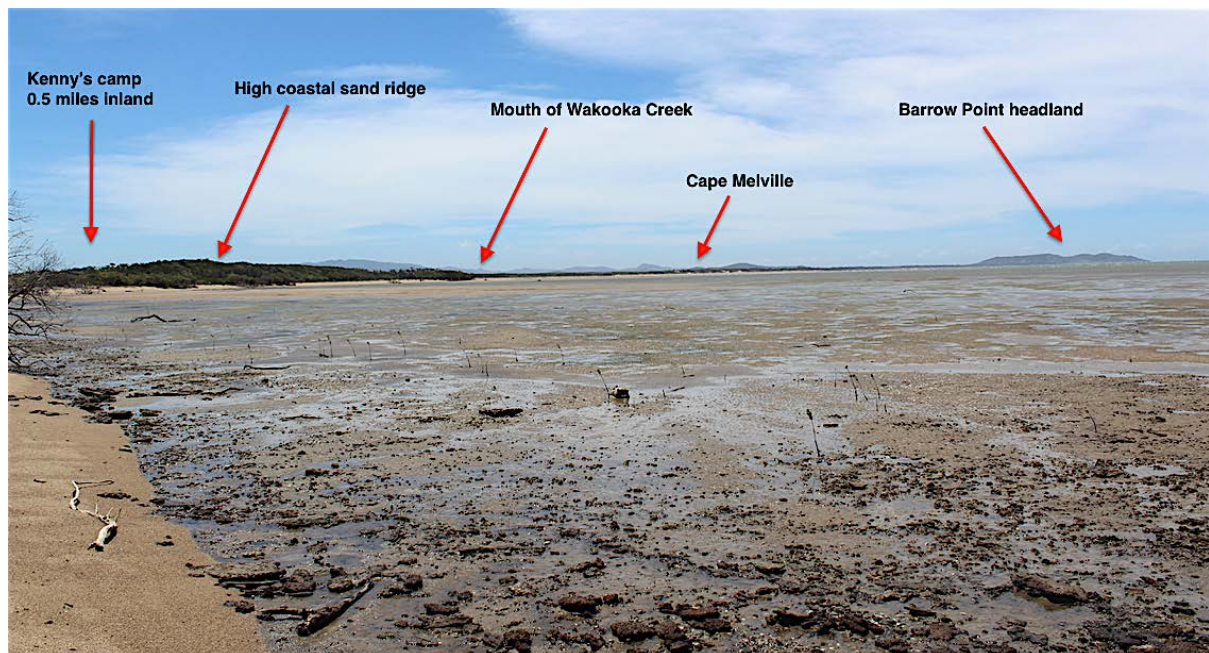
⁶⁹ Jeffrey Callaghan, "The Tropical Cyclone Risk in Cairns", *Natural Hazards* 30, No. 2, 2003, 129–153.

⁷⁰ Granger and Smith 1995, 16.

⁷¹ Nott and Hayne 2000; Nott et al. 2014; Graeme D. Hubbert and Kathleen L. McInnes, "A Storm Surge Inundation Model for Coastal Planning and Impact Studies", *Journal of Coastal Research*, 15, No. 1, 1999, 168–185.

moving about 12 kilometres an hour west-south-west. (These remain approximations based on simple models.) A hypothesis based on the best historical evidence can also show what factors contributed to the flooding observed by Kenny just after 5 a.m. on 5 March 1899.

Cape Melville is the closest point on the Queensland coast to the edge of the Australian continental shelf. About 50 kilometres east-north-east of Wakooka Creek, the continental shelf rises abruptly from a depth of several hundred metres to 20 to 30 metres. At Bowen Bay, the seabed 2.5 kilometres offshore is three metres below mean sea level, gradually becoming shallower towards the shore (Figure 5.18). During a cyclone, as Granger and Smith point out, the “shallower water of the Continental Shelf will magnify the surge, as will confined locations such as bays and inlets.”⁷² As can be seen in Figure 5.10, Wakooka Creek at the head of shallow Bowen Bay was at the midpoint of the zone of strongest winds on the cyclone’s southern side. This is also the area, generally 20 to 50 kilometres from the cyclone’s centre, that produces the maximum storm tide and wind-driven waves.⁷³



5.18 The head of Bowen Bay at low tide, looking north (photograph Ian Townsend).

⁷² Granger and Smith 1995, 16.

⁷³ Terry 2007, 69.

In Figure 5.10, the cyclone's track can be seen to be approaching from the east-north-east, and the most destructive winds to its south would push the storm surge over the edge of the continental shelf and into shallower water, magnifying the surge. The winds on the cyclone's southern side are stronger, because of the forward movement of the cyclone, in this case an estimated 12 kilometres an hour. The mouth of Bowen Bay can be seen to match the width of the area of maximum winds, and it appears to be facing the area of sea most likely to experience a storm surge. By the time the peak of the storm tide arrived, just after 5 a.m. on 5 March 1899, hurricane force winds had been blowing into the bay for five hours, the water piling up against the beach at the head of the bay on a rising tide. This piling up of water is what scientists call wave setup. One study using data from Hurricane *Katrina* in the US has applied wave setup to a model of the 1899 cyclone used by Nott et al., showing that a setup of four metres in 1899 was plausible.⁷⁴

Brisbane meteorologist, Herbert E. Whittingham, in reconstructing the cyclone in 1958, calculated that the astronomical high tide at Cape Melville on 5 March 1899 was between 3.17 a.m. and 3.22 a.m.⁷⁵ This is based on the high tide at Townsville on 5 March 1899 being at 3.11 a.m. and the high tides at Pison and Howick islands occurring eleven and six minutes later. This is similar to the high tide time predicted at Cooktown for 5 March 1899 (published in *Pugh's Almanac*) at 3.31 a.m. Because of the close correlation between the tides at Townsville, Cooktown, and Cape Melville, Whittingham assumed high tide at near Cape Melville arrived before 3.30 a.m. on 5 March 1899.

Maritime Safety Queensland (MSQ) was contacted during research for this thesis. MSQ used the tidal prediction model CPRED to show the 1899 tide times for the two closest modern tidal gauges: Munro Reef (23 kilometres north-east of Wakooka Creek), and Leggatt Island (28 kilometres east-south-east).⁷⁶ The CPRED prediction

⁷⁴ S. A. Hsu and Baozhu Liu, "Wave Setup during Hurricane Katrina and Tropical Cyclone Mahina", *Mariners Weather Log*, United States National Weather Service, 58, No. 3, <https://www.vos.noaa.gov/MWL/201412/cyclones.shtml> (accessed 11 March 2019).

⁷⁵ Whittingham 1958, 32.

⁷⁶ John Broadbent, Coastal Impacts Unit, MSQ, email to Ian Townsend, 29 August 2018. Broadbent explains: "CPRED is the name given by MSQ to its tidal prediction program. It is a modern program that is based on the work of A. T. Doodson (1921, 1926). Doodson's work is a comprehensive mathematical description (model) of the tidal potential. It is still relevant today and has not been supplanted by more recent work." [Arthur Thomas Doodson was a British oceanographer.]

program showed high tide at Leggatt Island to have been at 5.14 a.m. (2.33 metres), and high tide at Munro Reef to have been at 5.11 a.m. (2.19 metres). This suggests that high tide at Wakooka Creek was not at 3.30 a.m., but between about 5.15 and 5.20 a.m. The height of sea level rise since 1899 was calculated to be 0.16 metres.⁷⁷ The Mean Sea Level today for Leggatt Island is 1.691 metres. The mean sea level for 1899 was therefore 1.531 metres (calculated by subtracting sea level rise from current mean sea level). Remarkably, the storm surge on the morning of 5 March 1899 at Wakooka Creek coincided with a high tide of 2.33 metres, when the astronomical tide at Leggatt Island was 0.799 metres above mean sea level. For this hypothesis, this is the astronomical tide component for the storm tide Kenny witnessed.⁷⁸

Another component of the storm tide is the cyclone's low atmospheric pressure, which can raise the sea level about one centimetre for every hectopascal fall in pressure.⁷⁹ The atmospheric pressure recorded by the *Crest of the Wave* at sunset on 4 March 1899, just before 7 p.m., was 1002.37hPa.⁸⁰ The pressure reached a recorded low of 880hPa measured in the cyclone's eye wall, a difference of 122hPa, which could therefore contribute 1.22 metres to the sea level. Because Wakooka Creek appears to have experienced the eyewall as the cyclone passed to the north between 4.30 a.m. and 5 a.m., the air pressure may also have been approaching 880hPa at that spot. If so, the combination of the astronomical tide and the atmospheric pressure may have contributed two metres to the sea level rise, on top of four metres of wave setup, just as the storm surge arrived. This would explain how sea water came up to Kenny's waist on the ridge, but until the sand ridge is measured, a more accurate height for the storm tide cannot be calculated. However, because Green's modelling of a cyclone of 880hPa approaching from the north-east

⁷⁷ Paul Finger, Tides Officer, MSQ, email to Ian Townsend, 23 August 2018; John Broadbent, Coastal Impacts Unit, MSQ, email to Ian Townsend 29 August 2018.

⁷⁸ Broadbent 2018. For the purposes of the hypothesis, MSQ's model is presumed correct. The difference between the contemporary tide predictions and today's modelling was explained by John Broadbent: "Before the modern era, the methodology and observations, if any, used to prepare predictions for publications, such as Pugh's [Almanac of] 1899, are unknown. From ancient times, a number of non-harmonic tidal prediction processes have been devised and used. The basis and accuracy of these processes is highly questionable (variable) and impossible to assess. My experience is that they were adequate for the time but are no longer acceptable."

⁷⁹ Terry 2007, 58.

⁸⁰ "Log *Crest of the Wave*", in John Douglas, "Report of the Government Resident at Thursday Island for 1898", *QVP*, 1, 1899, 100.

has already been shown to produce a storm surge in the southern part of Bowen Bay of 8.279 metres, the storm tide's potential height exceeds 10 metres. What the model did not consider was Wakooka Creek's proximity to the cyclone and the cyclone's more direct east-north-east approach to the coast, wave setup of as much as four metres, wave runup, the funneling effect of Bowen Bay, and terrestrial flooding.

Wakooka Creek flooding: A discussion

Nott and Hayne proposed that one explanation for Kenny's observation not being supported in the field work by physical evidence was that, "Kenny's camp may have been inundated by a peak in terrestrial flood waters or a combination of marine surge and terrestrial run off which may have given the appearance of a 'tidal wave'."⁸¹ Based on the site of Kenny's campsite at the mouth of Wakooka Creek, this thesis supports the hypothesis of a combination of terrestrial flooding and marine surge. Kenny described an "immense tidal wave" sweeping inland just after 5 a.m., and the position of his campsite at the mouth of Wakooka Creek supports the theory that creek flooding contributed to the phenomenon.

Figure 5.10 shows the most destructive zone of the cyclone, between 20 and 45 kilometres from the centre's west-south-westerly track. This is not only the area of strongest winds, but the heaviest rain, and it can be seen to cover the entire 358 square kilometre Wakooka and Saltwater creeks' catchments. At midnight on 4 March, Kenny reported that the wind blew away the tents of his troopers and a tree limb fell onto his hammock. Several horses were killed by flying timber and the patrol moved to an open area away from the trees and covered their heads with a blanket against "the pelting rain, which seemed to hit as hard as hail."⁸² Torrential rain fell for the next five hours as vegetation was shredded across the catchment, which bore the brunt of the most destructive winds. The volume of rain may have been enormous because of orographic lift, when the spiralling rain bands were forced to rise when they met the Altanmoui and Melville ranges, 200 to 600 metres high,

⁸¹ Nott and Hayne 2000, 12.

⁸² Vidgen, "Northern Hurricanes", 5.

surrounding the catchment.⁸³ The winds felled most trees,⁸⁴ and the flood waters would have carried debris towards the narrow estuaries, where a rising tide and hurricane-force winds were piling seawater against the frontal sand ridge and preventing the terrestrial flood from escaping the creek mouth. The debris may have added to the dam-wall effect and a lake formed behind the frontal ridge. Just after 5 a.m., at high tide, the storm surge reached the coast and the peak passed over or around the front ridge and across the lake as if it was an extension of the sea. This may explain Kenny's description of a "tidal wave" sweeping across the ridge and reaching waist deep.⁸⁵ The ridge on which he had camped would have been surrounded by rising water before the storm surge arrived, but in the dark and driving rain he would not have noticed until the surge peak swept inland across the lake and spoilt his watch.⁸⁶ In an article published in 1938, John Kyle Little, a Native Police colleague of Kenny, appears to describe this aspect of the 1899 cyclone.

At Barrow Point in one wet season about March end, the rolling grey cloud masses presaged heavy wind. A handy old mangrove log off tidal mark made a break. The sand dune back of that was fairly high and behind the dune land flattened for a good space before the rise of the definite ridge came. We were watching for a masthead light, else had we not chanced the beach. Wind velocity that night lifted masses of ocean water over the sand dune and created an inland lake. So much the break of a new day told us as from various perches in scattered mangrove trees we shook the salt tears from our eyes and wondered where in that inland lake lay our packs.⁸⁷

Little's article had started by describing aspects of the 1899 cyclone, comparing it to the March 1907 cyclone that struck Cooktown, and several other cyclones. Little in 1899 was with the Native Police at Turnoff Lagoon in Queensland's Gulf Country west of Burketown and could not have witnessed the cyclone at Cape Melville.⁸⁸ In 1904 he was stationed at Coen when he was replaced by Kenny, and Little moved to

⁸³ Terry 2007, 76.

⁸⁴ Roth 1899, 2. Roth reported that, "... a far larger proportion of trees being down than up, these, the further we proceeded north, having fallen proportionately north of west."

⁸⁵ Vidgen, "Northern Hurricanes", 5.

⁸⁶ Ibid.

⁸⁷ J. K. Little, "Great Blows. Damage in Early Cyclones", *Sunday Mail* (Brisbane), 10 April 1938, 42.

⁸⁸ Jonathan Richards, *A Question of Necessity: The Native Police in Queensland*, PhD Thesis, School of Arts, Media and Culture, Griffith University, 2005, 328.

the Eight Mile outside Cooktown.⁸⁹ Little had the opportunity to speak to Kenny and would have heard Kenny's description of his cyclone experience. Little's description matches Kenny's likely experience, although Little makes two allusions that are difficult to interpret. Does the reference to the "handy old mangrove log off tidal mark" suggest the point where the beach track "made a break" or changed direction inland? Does the reference to watching for a masthead light refer to Kenny's search for Thomas's boat on the beach as being the reason for the patrol being there? It is impossible now to know, but there does appear to be an echo of Kenny's oral history in Little's article. After leaving the Native Police, Little had gone on to be a prolific writer of outback tales in newspapers, but he is not a credible witness for the 1899 cyclone because it can be shown he did not experience the event and he lied by suggesting he did. His description, although not credible as data, can be considered memory.

Implications for emergency management

In Queensland, coastal development is often concentrated on the heads of bays and the mouths of rivers because they provided access and shelter for shipping, which in the 19th century was the main mode of transport and trade along the coast. During the past 100 years, urban development has encroached closer to beaches and river mouths. Frontal dunes, shallow bays and low lying coastal land have been modified for housing. In cities such as Cairns, Townsville, and Mackay, some of these developments are at the head of shallow bays and behind sand ridges or flood barriers which appear to have similar bathometric and topographic features as Bowen Bay and Wakooka Creek. Emergency managers have long been aware of the dangers, but because large storm tide impacts are so rare, there are few case studies that can provide an adequate understanding of the risks, particularly when planning for worse-case scenarios. As environmental risk scientist Ken Granger explained:

For emergency managers, it is imperative that appropriate information and estimates are available on which to base life-and-death decisions

⁸⁹ Report from Sub Inspector Garraway re Constable J. K. Little's Resignation, 11 July 1904, QSA, A/40052/04/12610, (supplied by Jonathan Richards, "Native Police at the 'Eight Mile' Cooktown, North Queensland, 1874–1904", in an email 19 September 2006).

such as whether to order an evacuation of a settlement or not. More work is clearly needed to better understand the hazard, the attendant vulnerabilities and the consequent risks.⁹⁰

This thesis shows that using historical inquiry to reassess the 1899 cyclone and its storm tide can, by producing more credible data, potentially produce a better understanding of the behaviour of cyclones and the causes of coastal inundation. With changes in technology and the continuing development of the Queensland coast, meteorologist Bruce Harper has argued that storm tide risks should be reassessed.

... there is an emerging and relatively strong case for a comprehensive reassessment of storm tide risks along the entire coast. The opportunity now also exists for greater integration of the diverse service requirements of engineering, planning and counter disaster measures.⁹¹

Understanding the risks is now more urgent due to a greater appreciation of the impacts of a changing climate, in which a warmer world produces more intense cyclones and, therefore, more and higher storm tides. To assess those risks, a better understanding is needed of the past frequency of severe cyclones and their impacts. National manager of tropical cyclone warning service policy at BOM, Alan Sharp, has said that the “assessment of risk attributable to many phenomena relies on the analysis of past history.” He also warns that, because the number of recorded tropical cyclones is limited and the methodologies used to gather data have changed, there may be unknown biases in databases. Sharp has urged a “detailed reanalysis of older data — at least to the start of the satellite era. This can be done by the Bureau [of Meteorology], but will require significant resources currently not available.”⁹² This thesis produces a methodology based on historical inquiry that should be considered in any reanalysis of older data, to obtain a more accurate picture of past cyclones and storm tides, to help scientists and emergency managers better prepare for future cyclones.

⁹⁰ Granger and Smith 1995, 20.

⁹¹ Harper 1999, 18.

⁹² Alan Sharp, “Assessing Risk from Meteorological Phenomena Using Limited and Biased Databases”, *Australian Journal of Emergency Management*, 23, No. 4, 2008, 11.

Conclusion

The 1899 cyclone that caused the pearling disaster is an example of a documented historical cyclone that produced what is now considered a world record storm tide. Its value to scientists and disaster managers is recognised, but the data used to model it has been shown by the methodology to be from secondary sources, many of which can be shown to be untested and unreliable. An historical methodology, developed in Chapter One of this thesis, was applied in this chapter to scientifically significant aspects of the cyclone, including the positions of observers and their observations of wind direction, atmospheric pressure, and the height of the storm tide. To show by example how the tested data might be applied to reconstructing aspects of the cyclone, such as its track, a simple model has been developed. This produced a new hypothesis for the cyclone's track and behaviour, the site of the storm tide's impact and, from that, a detailed description of the elements that may have contributed to the storm tide. This hypothesis is based on data from historical inquiry and has not been tested by algorithms. However, the hypothesis proposes that the destructive 1899 cyclone approached Cape Melville from the east-north-east travelling at approximately 12 kilometres an hour, the centre crossing directly over Cape Melville about 4.30 a.m. on 5 March 1899, producing a storm tide in excess of 10 metres at Wakooka Creek that coincided with high tide after 5 a.m. and terrestrial flooding in a creek at the head of a shallow bay. In other words, the 1899 cyclone appears to provide a potential case study for a worst-case cyclone and storm tide impact on the Queensland coast.⁹³

This reanalysis of the 1899 cyclone demonstrates how historical inquiry can produce the best available evidence for past disasters, to help science better predict future ones. Credible primary source data on the 1899 cyclone has always been available, but media errors and social and political narratives over 120 years appear to have had a significant influence on the historical record, Government databases, and the scientific literature. As scientists extend their samples of cyclones and storm tides back before the age of satellites and into the 19th century, to better understand and

⁹³ See Harper 1999, 11, for a list of storm tides and the risks of recurrence.

predict cyclones and the disasters they cause, and as archives become digitised and more easily accessed, there is increasing use by science of data from historical documents. It can be difficult to find, in the large amount of data now available online, the small number of original primary and credible sources.

Once data enters the scientific literature, it can acquire a degree of credibility. Scientists today referring to the 1899 cyclone often cite data from previous papers, unaware of its origin or how it has been tested. In this way, official databases have become populated with unreliable secondary source data for the 1899 cyclone that appears to be credible, but is not.

It is unknown if the problems revealed in this thesis extend to other historical cyclones, but the possibility that they do should be considered. Any scientific evaluation of an historical cyclone, the data for which is drawn largely from historical records, should include a review of the primary evidence for that data, if more confidence is to be placed in cyclone prediction and disaster planning for communities along Queensland's coast.

CONCLUSION

On 25 September 2018, I stood on the sand ridge south of Cape Melville where, nearly 120 years earlier, five men of the Native Police witnessed what would later be considered a world record storm tide associated with Australia's deadliest and strongest recorded tropical cyclone. The purpose of this thesis, and the reason for visiting the remote site on Cape York, was to examine why such a significant disaster was never constructed as a national event and why, despite decades of scientific inquiry, there are discrepancies between the data used by scientists today and what the best evidence for the disaster shows.

The approach I took was, first, to search personal and public archives for references to, and evidence for, the event. A methodology was then developed to test the credibility of documents and their data. Theories of narrative and memory were applied to those documents to show how and why the data changed over time. Finally, the best evidence was used to reconstruct aspects of the event. I have concluded that powerful cultural narratives were responsible for the forgetting of the disaster, and those narratives, coupled with media errors, were responsible for changing some data over time. This is not surprising. Historians have long described the process by which memory diverges from history that is "no longer."¹ Halbwachs described memory as being reconstructed "with data borrowed from the present,"² and White argued that history is also a narrative with a structure that prevents it from being an accurate record of fact.³ What is surprising is how much of the official record, including data in government and scientific databases, is influenced by narratives and based on secondary source data from memory, rather than more credible and primary source data from history. The 1899 cyclone has never been the subject of historical inquiry, and as a result, untested data has entered the scientific literature.

¹ Pierre Nora and Marc Roudebush (trans.), "Between Memory and History: Les Lieux de Mémoire", *Representations*, 26, Spring 1989, 8.

² Maurice Halbwachs, *The Collective Memory*, New York: Harper and Row, 1980, 69.

³ Hayden White, *The Content of the Form: Narrative Discourse and Historical Representation*, Baltimore: Johns Hopkins University Press, 1987.

In searching for the best evidence, the research led me to the site of the world record storm tide, the ridgetop on which the Native Police camped on 4 March 1899, at the mouth of Wakooka Creek, south of Cape Melville. This site is an appropriate metaphor for this thesis. This is the country of the Barrow Point people and, while descendants still use the country, no-one lives there permanently anymore. This ridgetop, on which shells and stone tools provide evidence for former habitation, had been lost to the memory of the Barrow Point people because of the greater disasters that befell them in the late 19th and early 20th centuries; the removal from country, separation of families, massacres, and disease. Relatively few survived, but fragmentary evidence in archives and oral histories links this ridgetop to the Barrow Point people and the Native Police. As Munslow says, the job of the historian is to “invest evidence with meaning” so it can be “correlated and placed within a context.”⁴ The significance to science of the cyclone cannot be fully understood without the context of the Traditional Owners of the area, their contact with the 19th century fishing industry, and the actions that led to the Native Police camping on the site to record the 1899 storm tide. The data for the 1899 cyclone does not exist in isolation. It is given meaning, and its credibility better assessed, by understanding how and why it was recorded.

Like the main track linking the campsites of the Barrow Point, described by Roth as the Northern Road, this thesis has shown that memory tends to follow a path of least resistance through time. The four-wheel-drive track used today by fishermen to reach Bowen Bay, which I followed to reach the Native Police patrol campsite at Wakooka Creek, follows the Northern Road, but not the road as it was in 1899. Traditional Owner and a manager of Cape Melville National Park, Daniel Gordon, standing on the track, described how in the early 20th century newly arrived cattle also followed the path of least resistance through the bush, following the tracks the Barrow Point people had walked for centuries. Today, the original track is obscured by a confusion of modern tyre tracks criss-crossed by old and new cattle pads. They tell several overlapping narratives woven through time, echoes of the original, but which have taken a turn here to avoid a fallen branch, or a detour there to water or a food source as the seasons change the country. These are part of the fabric of

⁴ Alun Munslow, *Deconstructing History*, London: Routledge, 1997, 8.

history, but they can obscure what came before. Detours are informative, but time and use have changed the track from what it was in 1899. So, too, have social narratives changed over time and influenced the memory of the event, as can be seen reflected in newspaper articles. When new data appearing in media resonates with contemporary cultural narratives, such as the addition to Newi's story of two white men, or when Hothouse adds 100 Aboriginal people to the death toll, later writers can be seen to follow that same narrative path. Such myths can be difficult to unpick. This thesis has revealed a tendency for data from secondary sources and even myths in media to enter the scientific literature, perhaps because some scientists are unaware of the differences between history and memory, and how political and social narratives, and media processes, can influence data over time. This is an area in which historians can help scientists. As Marwick states, historians' skills "lie in sorting these matters out, in understanding how and why a source came into existence, [and] how relevant it is to the topic under investigation."⁵

At least two significant pieces of data of interest to science have been produced in the process of conducting this historical inquiry into the 1899 cyclone. Porter's observation of the cyclone's lowest pressure, 914hPa (27inHg), has been revised to 880hPa (26inHg), after more credible data was found.⁶ Why the revision? The first figure, 914hPa, came from the secondary source Outridge booklet, published six months after the cyclone. New evidence shows that Porter reported "26 inches" (880hPa) the day after the cyclone, but at the time colleagues did not believe a cyclone could have such a low pressure. No vessel had, before 1899, recorded and survived such a low pressure in a tropical cyclone, typhoon or hurricane, but lower cyclone pressures have since been recorded in the Pacific.⁷ Unless better evidence is found to show otherwise, the best and most credible evidence is that Porter recorded 880hPa in the cyclone's eye wall.

⁵ Arthur Marwick, *The New Nature of History: Knowledge, Evidence, Language*, Basingstoke: Palgrave, 2001, 27.

⁶ Jonathan Nott, Camilla Green, Ian Townsend, and Jeffrey Callaghan, "The World Record Storm Surge and the Most Intense Southern Hemisphere Tropical Cyclone: New Evidence and Modeling", *Bulletin of the American Meteorological Society*, 95, No. 5, May 2014.

⁷ G. M. Dunnavan and J. W. Diercks, "An Analysis of Super Typhoon Tip (October 1979)", *Monthly Weather Review*, 108, No. 11, 1980, 1915–1923.

The extraordinarily low central pressure of the 1899 cyclone is partly supported by the report of its associated world record storm tide. The methodology used in this thesis showed that Kenny's report of sea water reaching his waist while on a ridge just over 12 metres (40 feet) above sea level is credible; however, until further investigation, it cannot be corroborated. This thesis reveals for the first time the location for the ridge on which he made his observation, and there are now opportunities for scientists to measure its height and determine the factors that contributed to Kenny's observation. While it was beyond the scope of this thesis to apply science to the data it revealed, a hypothesis was developed to show how the data could help corroborate other historical evidence, and to demonstrate the potential value of historical inquiry to science. The hypothesis in Chapter Five applied the credible data to simple models to show a cyclone of 880hPa travelling west-south-west at 12 kilometres an hour, with an eye 40 to 45 kilometres wide, beginning to cross the coast at Cape Melville after 3 a.m. on 5 March 1899, producing a storm tide of more than 10 metres at the mouth of Wakooka Creek, in Bowen Bay, just after 5 a.m. The best evidence shows that the storm tide coincided with high tide and the height of the sea experienced by Kenny was also likely to have been influenced by wave setup along the beach, as well as terrestrial flooding behind the sand ridges at the mouths of Wakooka and Saltwater creeks. (This hypothesis, although based on the best available historical evidence, is not meant to be a substitute for scientific inquiry.)

Previous scholarly inquiry into the 1899 cyclone and the disaster it caused has been conducted not by historians, but by scientists, primarily Whittingham in 1958, Nott and Hayne in 2000, and Callaghan in 2008. These studies have been based on data from the Outridge booklet, Whittingham in 1958, and Holthouse in 1971. Green in 2010 and Nott and his colleagues in 2014 incorporated primary evidence into models to more accurately describe the cyclone. Their conclusions, that the lowest pressure of 880hPa is credible and the storm tide height of more than 12 metres plausible, remain valid. This thesis, through the development of a methodology, produces better evidence, including evidence for the site at which the storm tide was observed, further demonstrating the value of applying historic inquiry to science.

Non-academic histories have had a greater impact on the social memory of the event. These include Holthouse in 1971, Norman Pixley in 1972,⁸ John Singe in 1979,⁹ Bill and Bev Shay in 1999,¹⁰ and Evan McHugh in 2003.¹¹ They have generally not produced new research,¹² but repeated secondary sources from the Outridge booklet, or repeated interpretations of Outridge, such as Whittingham and Holthouse. That the Outridge booklet, an account of “the Europeans who were lost,”¹³ became the de facto official history is understandable. It was a well-written contemporary compilation of information, a piece of journalism that included some primary source interviews, but was primarily paraphrasing “Press and official reports” without attribution.¹⁴ The booklet was subjective and followed the tendency in the 19th century to focus, as Rivard has noted, on men in power thereby “erasing the many rich histories of communities and cultures that were not related to elite, white power-holders.”¹⁵ The booklet, when copies were found by journalists and scientists in the second half of the 20th century, exerted a powerful influence on memory, providing a summary of events and observations framed by the narratives of the contemporary “white power-holders”; the Europeans who made up just four percent of the members of the fleets in 1899. When describing the experiences of other cultures, it generally described them as they affected the European narratives.

One of the main questions this thesis asks is why the cyclone has not had a more prominent place in the nation’s memory. Despite its appeal to a White Australia in 1899, the Outridge booklet had a small circulation and failed to cement the disaster into the story of the new White Australian nation. The disaster is better remembered by descendants, and by some communities of North Queensland, and it is often reprised in local media stories when cyclones threaten the coast. A feature of the

⁸ Norman S. Pixley, “Presidential Address: Pearlers of North Australia: The Romantic Story of the Diving Fleets”, *Journal of the Royal Historical Society of Queensland*, 9, No. 3, 1972, 9–29.

⁹ John Singe, *The Torres Strait: People and History*, St Lucia: UQP, 1979, 164–165.

¹⁰ John Shay and Bev Shay, *The Greatest of All Cyclones Bathurst Bay 1899*, Cooktown, Queensland: Cooktown and District Historical Association, 1999.

¹¹ Evan McHugh, *Shipwrecks: Australia’s Greatest Maritime Disasters*, Camberwell, Victoria: Viking, 2003, 209–227.

¹² Shay, however, produced for the first time a list of names of those who died, interpreted from the Cooktown Death Register.

¹³ Anonymous, *The Pearling Disaster, 1899: A Memorial*, Brisbane: Outridge Printing Company, 1899, 6.

¹⁴ *Ibid.*

¹⁵ Courtney J. Rivard, *Archiving Disaster: A Comparative Study of September 11, 2001 and Hurricane Katrina*, PhD thesis, University of California, 2012, 51.

cyclone's recurrence in national media is its framing as a "forgotten" story; an acknowledgment that the event remains outside the national memory. As West has argued, cyclones are constructed as a national event "with difficulty."¹⁶ Darwin's cyclone *Tracy* in 1974 is the exception, portrayed in the media at the time as Australia's worst national disaster.¹⁷ It is remembered, as West suggests, because of the involvement in the recovery of the military, long associated with national identity, and the framing of all victims of *Tracy* as Australian. The pearling disaster caused by the 1899 cyclone was one in which most victims were the antithesis of citizens of a new White Australian nation as it was being imagined in 1899 in the lead-up to Federation.

The disaster also occurred in Queensland's far north, a region still reasonably remote from most Australians. The two memorials to the disaster, at Bathurst Bay and Thursday Island, are seen by few people and do not therefore contribute to social memory as might more prominent memorials in larger population centres. Both memorials name the European dead, but not the non-Europeans. This should be corrected, and this thesis produces a list of 298 known dead. One of the limitations of such a list, however, is the contradiction amongst sources of the spelling of names, reflecting the poor quality of record keeping in 1899. Errors of translation and transmission compounded problems of illiterate or non-English speaking men who signed, or had others write their names into, ships' articles. This should not, however, preclude more accurately recognising all the people who died as a result of the cyclone. There may, for example, be opportunities for a separate memorial giving a qualified explanation of the names, for a memorial in which the names could be updated if necessary, or for a memorial symbolising the many cultures involved, reflecting the pearling industry and also the Aboriginal communities which suffered on shore. In this way, all people are remembered and respected. One limitation of this thesis was the inability to do comprehensive research overseas to trace these men and their families. As shown in Chapter Three, evidence exists in Japan of a memorial with names associated with the 1899 cyclone, but they cannot be matched to any of the known dead. It is likely memories

¹⁶ Brad West and Philip Smith, "Natural Disasters and National Identity: Time, Space and Mythology", *Australian and New Zealand Journal of Sociology*, 33, No. 2, 1997, 208.

¹⁷ John Lombard, "Man in the Centre of it All", *Advertiser* (Adelaide), 27 December 1974, 5.

and memorials exist in other communities that could shed more light on the names and backgrounds of the dead. The impact of the disaster on some small villages from which groups of young men left to work in Australia, never to return, may still be felt (as has been described, with an example of intergenerational trauma, in Chapter Four). In Britain's Australian colonies the impact of 12 dead Europeans did not have the lasting impact that 300 Australian dead might have had, and the memorialisation of the event is a continuation of the influence of contemporary cultural and racial attitudes.

This has not stopped attempts to revise events to conform with British and White Australian narratives. There have been attempts to dramatise Porter's role in saving his ship in newspaper features and fictional recreations.¹⁸ Most recorded acts of heroism during the disaster, however, were performed by the non-European crews, and these acts became the focus of attempts at myth-making, to fold them into white narratives. When in 1899 Thursday Island Government Resident John Douglas recognised Newi's bravery in rescuing two relatives, this was not enough to get it public attention. When the Queensland Government awarded her a medal for bravery, it was not reported in newspapers at the time. In the 1930s, the story was revived to become part of the "noble savage" racial construct, and Newi's rescue of her relatives changed in 1934 to become the rescue of two white men.¹⁹ This story was repeated by journalists and non-fiction writers, including by Holthouse in 1971, who also added the myth that 100 Aboriginal people were swept out to sea and drowned. Myths have played important roles in helping an event live on in social memory, but this thesis has demonstrated how science has also incorporated myths such as the 100 dead Aboriginal people into scientific literature and, as was shown in Chapter Three, models of cyclone behaviour.

One unexpected aspect of the thesis was the relative absence today of personal stories in family memories. The cyclone had a profound impact on the survivors as well as the families of those who did not survive, and I expected to find more material

¹⁸ For example, Cappy Ricks, "They Were Saved by a Babe. True Story of a Terrible Storm at Sea", *New Zealand Free Lance*, 13 April 1938, 2; Ian Townsend, *The Devil's Eye*, Pymble, NSW: Fourth Estate (HarperCollins), 2008.

¹⁹ E. K. P., "300 Drowned", *Sunday Mail* (Brisbane), 15 April 1934, 6. This appears to be the first reference to Newi's rescue of two white men.

in family archives and oral histories. The role of trauma was examined as a possible cause. Amongst the pearling fleet descendants contacted, including members of the Porter, Guivarra, Pitt, Fuhrman, Outridge, Vidgen, and Murray families, there was a marked absence of personal stories. One common comment by descendants is that their older relatives did not talk about it. This follows a pattern described by Damousi, referring to the trauma of war, of the silence of widows.²⁰ Families contacted were aware of the event, but not the details, and if they described the cyclone, it was often to repeat myths, suggesting that an absence of family stories could be filled by collective memories. Collective memory requires a negotiation between many people to remember a shared experience or memory, and it is impossible for families to share an experience if it is not articulated.²¹ Although the pearling disaster directly impacted about 1,000 people at sea and an estimated 1,000 people ashore in the Cape Melville area and Princess Charlotte Bay hinterland, there are surprisingly few personal stories. This is partly because many of those who experienced the worst of the disaster in Bathurst Bay drowned, and most of the surviving foreign crew were later deported or finished their contracts and went home. In the early 20th century, the Aboriginal people ashore were removed from their country, and the young separated from their families and put onto missions, often forbidden to speak of their culture. The old appear to have died before many stories could be passed on. This thesis has found that, despite the large number of people who experienced the event, the high death toll associated with the disaster, a diaspora of those who survived, the breaking up of families and the associated intergenerational trauma broke the chain of custody for those memories. This thesis, therefore, contributes to a body of research on grief and memory.

It is also notable that unlike wars, disasters, as Hamilton has pointed out, are not generally a topic of scholarly work by historians. Disasters tend to be geographically and temporally restricted, affecting one place for a short time. War, on the other hand, can be considered a disaster on a national or international scale, played out over longer periods of time. Wars are often contests involving national identity. The features that make the 1899 disaster forgotten — the relative absence of national

²⁰ Joy Damousi, *Living with the Aftermath: Trauma, Nostalgia and Grief in Post-war Australia*, Melbourne: Cambridge University Press, 2001, 99.

²¹ See Halbwachs 1980.

identity and short span of media attention — are reversed in war. Communities are more likely to remember events if they are relevant to their social identity, and it appears also that historians are more likely to study those events. Studies of social memory in war and disaster are also functions of social memory.

For science, the social memory of an event is usually not a consideration. The increased scientific interest in the 1899 cyclone is a result of the increasing research into the potential impacts of climate change and the rising costs of disasters caused by severe weather events. The geoscientific and meteorological study of cyclones is concerned with finding data that can reveal the behaviour of the cyclone and its associated impacts. However, as demonstrated in this thesis, when scientists use data from historical documents, particularly those from the 19th and early 20th century, they may not fully appreciate the ways in which human error and social discourses can influence that data over time. Even when data is initially recorded on sophisticated instruments, such as a barometer, by a credible witness, its credibility is at risk every time it is repeated. This thesis demonstrates the importance to science of historical inquiry and historiography, and recommends that scientists studying historical documents use a historical methodology, or collaborate with an historian, to find the earliest sources and test that data before accepting it as credible. Likewise, scientific inquiry can help historians better understand natural events and corroborate historical evidence. The two acting separately are more likely to produce errors, such as reports in scientific literature of porpoises found 15 metres up cliffs, and 100 people in Bathurst Bay blown or swept into the sea. These can be shown by collaboration to be not only based on rumour, error or fabrication, but scientifically unlikely.

The thesis also identifies a problem with the increasing digitisation of archives that allows for easier access to historical documents and data. As shown in Chapter Five, there are 14 credible sources for weather observations at Cape Melville during the 1899 cyclone, and these come from handwritten journals, government inquiries and reports, and newspaper accounts. Many are not available online or are difficult to identify amongst the thousands of more easily accessible secondary sources. The inclusion of secondary sources in government databases can give the impression that the data is credible, but the lack of references to primary sources makes it

difficult to test those assumptions. It is unreasonable to expect scientists to dig down to the primary sources for each piece of data they cite in every journal or database. This thesis recommends the review of databases of historic cyclones of the 19th and early 20th centuries to ensure historical data is credible.

There is also scope for further collaborative research with scientists and archaeologists. The Traditional Owners of Cape Melville National Park, who are also the managers of the park, have expressed an interest in identifying sites where bodies were buried after the cyclone. There is documentary evidence for a number of graves on Pipon Island, five graves on Bewick Island, and between 105 and 115 on or near the beaches in Bathurst Bay between Bathurst Head and the tip of Cape Melville.²² A separate study could better identify the location of graves, which would help with identification should remains be found. The beach at Bathurst Bay where many of the bodies were buried is now a tourist campsite. Similarly, the locations of ship wrecks could be better identified. Of 69 vessels reported wrecked or sunk in the cyclone, 12 were salvaged and the locations of more than 40 remain unknown over a 120-kilometre length of coastline. Historical documents used in this thesis can better show their last known positions.

Finally, and significantly, a collaborative historical study with archaeology and geoscience is needed of the Wakooka Creek campsite at which Kenny camped during the cyclone, and which appears, from documentary and oral history evidence, to also be a significant seasonal campsite the Barrow Point people abandoned in 1881 as a result of a Native Police reprisal for attacks on the fishing industry. Sediments, shells, and stones on the ridge need to be examined to show if they were deposited by waves or people, and the ridge surveyed to show its height above mean sea level. This will provide data to help determine the height of the storm tide, in which there is international interest. There are significant cultural issues associated with the site that need further research. A visual survey of the site in 2018 showed a mound in the middle of the site and a blaze on a tree nearby, which in

²² Anonymous 1899, 34; "The Pearling Disaster. Discovery of Five More Bodies", *Torres Straits Pilot*, 25 November 1899; Walter Roth, Northern Protector of Aboriginals, to Under Secretary, Home Office, "Report re distribution of Gifts to Coastal Aboriginals", 9 April 1899, HOM/A23, QSA, ID847561; "The Late Hurricane. Letter from Mr. James Clark", *Brisbane Courier*, 15 May 1899, 7.

other parts of Cape York have been associated with graves.²³ Because of the site's links to a Native Police reprisal in 1881, including oral history of a massacre at a camp near the mouth of Wakooka Creek, the site needs an archaeological assessment in consultation with Traditional Owners.

This thesis set out to examine the evidence for the pearling disaster of 1899, and the factors that influenced how it was remembered, reported, and scientifically studied. In the process, it raised research questions that are relevant to other disciplines, particularly meteorology, geoscience, and archaeology. Because this thesis also explores the roles of media and narrative on memory, it is also appropriate to observe that the Northern Road of the Barrow Point people could play a role in correcting some of the errors of memory, identify new but forgotten aspects of Barrow Point culture, and better express the significance to history and science of this remote area of Queensland. The Northern Road can be considered a metaphor for what has been forgotten and what might be remembered. It tells a story that links the present to the past, the pearling industry to the Barrow Point people and the Native Police who used the same campsite beside the road at Wakooka Creek, which also bore the brunt of one of the world's most powerful cyclones. It could be used, as history is often used, to inform contemporary social discourses and, by example, explain the complex nature of frontier conflict. Despite what may seem to be criticism in this thesis of the role of media in the distortion of evidence, the media recorded and preserved much of the credible data for the 1899 cyclone and the pearling disaster. The careful presentation of evidence in the media can correct errors of memory, and my hope is that this thesis provides a basis for rejuvenating a wider interest in this scientifically and culturally significant part of Australian history.

²³ Lawrence B. Conyers, Emma J. St Pierre, Mary-Jean Sutton, and Chet Walker, "Integration of GPR and Magnetics to Study the Interior Features and History of Earth Mounds, Mapoon, Queensland, Australia", *Archaeological Prospection*, 2018, published online 3 July 2018, <https://onlinelibrary-wiley-com.ezproxy.library.uq.edu.au/doi/full/10.1002/arp.1710> (accessed 14 March 2019).

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APPENDICES

Appendix 1: Death Toll 1899 Cyclone

	A	B	C	D	E	F	G
1	Name	Other Name	Place of Origin ^{1, 2}	Fleet	Position ¹	Age	Death Cert 1899/00 ¹
2	Abdrahman ¹ Abrahaman ²		India	Silvery Wave	Seaman	37	1209
3	Abdullah ^{1, 2}		Singapore	Sketty Belle	Seaman	27	1257
4	Aboo ¹ bin Aboo ²	Sambin ¹ Sam ²	Singapore	Silvery Wave	Seaman	32	1251
5	Abraham ^{1, 2}	Joe ^{1, 2}	Singapore	Sagitta	Diver	29	1329
6	Abris ¹ Batchoo ²	Batchoo ¹	Malay	Silvery Wave	Seaman	27	1211
7	Adriano ¹ Adrana ²		Manilla	Sagitta	Sailor	25	1321
8	Ah Mat ^{1, 2}		Java	Sketty Belle	Seaman	27	1260
9	Ah Mat ^{1, 2}		Malaya	Silvery Wave	Seaman	25	1196
10	Ah Mat ^{1, 2}		Singapore	Sketty Belle	Seaman	25	1259
11	Ahmet ¹		India	Silvery Wave	Seaman	28	1274
12	Alban ^{1, 2}	Juan ^{1, 2}	Manilla	Silvery Wave	Seaman	44	1226
13	Allinous ¹ Allionis ²		Malaya	Silvery Wave	Cabin Boy	25	1206
14	Amos ¹ Amios ²		South Sea Islands, Rotumah	Sagitta	Diver	20	1290
15	Andris ¹ Andres ²	Gostene Waduga ¹	Ceylon	Pirate (A.J. Bebroth)	Pearlsheller	31	1356
16	Appoo ¹ Apos ²	Sine ¹ Sing ²	Ceylon	Silvery Wave	Seaman	28	1284
17	Aquilar ¹ Aguilas ²	Philip ^{1, 2}	Manilla	Silvery Wave	Boatswain	42	1231
18	Assan ¹ Assam ²	Ali ²	Egypt, Aden	Crest of the Wave	Seaman	25	1286
19	Assan ¹ Java ²	Assam ²	Java	Silvery Wave	Seaman	28	1263
20	Atthow ^{1, 2}	Edward Charles ¹	Queensland, Brisbane	Silvery Wave	Clerk	20	1341
21	Barqua ^{1, 2}	Captain ¹	South Sea Islands, Malaita	Sagitta	Seaman	31	1294
22	Bateena ^{1, 2}	Jimmy ^{1, 2}	South Sea Islands, Honдах	Sagitta	Sailor	31	1296
23	Ben ¹ Rotumah ²	Ben ²	South Sea Islands, Rotumah	Silvery Wave	Diver	34	1121
24	Benlabie ¹ Benlabi ²		Manilla	Silvery Wave	Seaman	40	1228
25	Billie ²		South Sea Islands	Rattler (Douglas Pitt)			
26	bin Abdullah ^{1, 2}	Mydin ^{1, 2}	Malay Peninsula	Sketty Belle	Seaman	39	1214
27	bin Aboo ^{1, 2}	Omar ^{1, 2}	Malaya	Silvery Wave	Seaman	30	1200
28	bin Ahmat ¹ Ah Mat ²	Kilchi ^{1, 2}	Malay Islands	Silvery Wave	Seaman	27	1202
29	bin Ali ^{1, 2}	Cassim ¹ Cassin ²	Malay Peninsula, Penang	Silvery Wave	Seaman	24	1225
30	bin Ali ^{1, 2}	Almon ^{1, 2}	Singapore	Sagitta	Sailor	25	1325
31	bin Assam ¹	Elam ¹ Etam ²	Malaya	Silvery Wave	Seaman	20	1199
32	bin Assan ¹ Ben Assam ²	Abboo ^{1, 2}	India, Calcutta	Sketty Belle	Seaman	30	1279
33	bin Assan ¹ Bin Assam ²	Ali ^{1, 2}	Malaya	Silvery Wave	Seaman	27	1205
34	Bin Assan ¹ Bin Asson ²		Malay Islands, Borneo	Sagitta	Sailor	29	1337
35	bin Brahim ¹ Ben Brahim ²	Doolah ¹ Dollah ²	Malay Islands	Sagitta	Sailor	25	1334
36	bin Dolla ¹ Bin Dalleh ²	Salleh ¹ Salleb ²	Malaya	Silvery Wave	Seaman	35	1198
37	bin Doolah ^{1, 2}	Ali ^{1, 2}	Malaya	Silvery Wave	Seaman	20	1197
38	bin Hadji Sahib ¹ Bin Hadgi ²	Dollah ¹ Dalah ²	Malaya	Silvery Wave	Seaman	18	1201
39	bin Hosin ¹ Bin Hassin ²	Cassin ¹ Cassim ²	Malaya	Crest of the Wave	Seaman	26	1220
40	bin Jelet ^{1, 2}	Bengal ^{1, 2}	Singapore	Sketty Belle	Seaman	20	1256
41	bin Kamis ¹ Bin Kamin ²	Matrom ^{1, 2}	Java	Silvery Wave	Seaman	20	1265
42	bin Kitchil ¹ Ben Kitchiel ²	Osman ^{1, 2}	Singapore	Silvery Wave	Seaman	30	1250
43	bin Labbu ¹ Ah Wong ²	Ah Wong ¹	Malaya	Silvery Wave	Seaman	22	1208
44	bin Munbz ¹ Bin Muntz ²	Daran ¹ Tarani ²	Malay Peninsula	Sketty Belle	Seaman	21	1216
45	bin Omar ¹	Alee ¹ Alle ²	Malay Islands, Penang	Crest of the Wave	Seaman	20	1223
46	bin Prim ^{1, 2}	Acha ^{1, 2}	Siam	Sketty Belle	Seaman	20	1276
47	bin Sali ¹ Salli ²	Ahmat ^{1, 2}	Malay Peninsula	Sketty Belle	Seaman	24	1213
48	bin Salleh ^{1, 2}	Dollah ¹ Dooleh ²	Malay Peninsula, Malucca,	Silvery Wave	Seaman	29	1224
49	bin Salleh ^{1, 2}	Omar ^{1, 2}	Macassar	Sketty Belle	Seaman	20	1281
50	bin Sampa ¹ Bin Tampa ²	Naga ¹ Nogo ²	Malay Peninsula	Crest of the Wave	Seaman	33	1222
51	bin Sarpin ^{1, 2}	Sarpin ^{1, 2}	Batavia	Silvery Wave	Seaman	30	1282
52	bin Seedin ¹ Bin Sedin ²	Ahmat ^{1, 2}	Java	Silvery Wave	Seaman	25	1261
53	Bob ¹ Singapore ²		Singapore	Silvery Wave	Seaman	26	1254
54	Bob ²		Aboriginal	Maygalle (Barney Erromanga)			
55	Booka Booka ^{1, 2}	Sam ^{1, 2}	South Sea Islands	Crest of the Wave	Seaman	33	1126
56	Brown ¹ Brain ²	Charley ^{1, 2}	Singapore	Sagitta	Sailor	30	1322
57	Bryan ^{1, 2}		Malay Peninsula	Sketty Belle	Seaman	21	1217
58	Cameron ¹	Robert ¹	Scotland	Sagitta	Seaman	23	1343
59	Camoy ^{1, 2}		South Sea Islands, Rotumah	Silvery Wave	Tender	30	1124
60	Campie ¹ Canapie ²		Java	Silvery Wave	Seaman	30	1271
61	Cassim ¹ Kasim ²	Ahmat ^{1, 2}	Malaya	Silvery Wave	Seaman	24	1212
62	Castilion ^{1, 2}	Pilano ^{1, 2}	Manilla	Crest of the Wave	Seaman	25	1236
63	Cedar ²		Torres Strait, Murray Island	Pirate (A.J. Bebroth)	Crew		
64	Cedar ⁴	Billy ⁴	Torres Strait, Darnley Island	Rattler (Douglas Pitt)	Crew		
65	Charley ²		Aboriginal	Maygalle (Barney Erromanga)			
66	Charlie ²		South Sea Islands	Francis (Pedro Guvarra)		30	
67	Cheefoo ¹ Cheopan ²		Malay Islands, Borneo	Silvery Wave	Seaman	28	1285
68	Collin ⁴		Aboriginal, Flinders Island		Crew		
69	Coomooki ¹ Coomarkie ²	Jimmy ¹	South Sea Islands, Malaita	Sagitta	Seaman	28	1293
70	Crowley ¹	Daniel ¹	England	Channel Rock Lightship	Seaman	30	1110
71	Dan ²		Aboriginal	Maygalle (Barney Erromanga)			
72	Dau ¹ Dan ²	Sam ^{1, 2}	Java	Silvery Wave	Seaman	37	1272
73	Davis ^{1, 2}	Charley ^{1, 2}	Singapore	Sagitta	Sailor	26	1323
74	Dick Dead-eye ³		Aboriginal				
75	Doas ^{1, 2}		Japan	Crest of the Wave	Seaman	20	1173
76	Domingo ²		Manilla	North Wales (Aplin, Brown, Co)	Crew		
77	Doolah ^{1, 2}		India	Silvery Wave	Seaman	25	1275
78	Doolah ^{1, 2}		Singapore	Sagitta	Sailor	27	1330

	A	B	C	D	E	F	G
79	Doretio ¹ Donetio ²		Manilla	Crest of the Wave	Tender	30	1244
80	Doria ¹ Davia ²		Malaya	Silvery Wave	Seaman	26	1210
81	Douglas ⁵		Torres Strait, Murray Island			20	
82	Dowdoolong ^{1,2}	Bob ^{1,2}	South Sea Islands, Motlop	Sagitta	Sailor	33	1299
83	Edris ^{1,2}		Malay Islands	Silvery Wave	Seaman	19	1195
84	Espata ^{1,2}	R. ²	Manilla	Silvery Wave	Seaman	22	1227
85	Esta ^{1,2}		Japan	Crest of the Wave	Seaman	20	1191
86	Etarō ¹ Etari ²		Japan	Crest of the Wave	Seaman	30	1188
87	Faria ¹ Paria ²	Martin ^{1,2}	Manilla	Sketty Belle	Sailmaker	31	1232
88	Felece ⁵		Torres Strait, Murray Island			2	
89	Fotomatz ¹ Tokomatzae ²	Noha ¹ Naka ²	Japan	Silvery Wave	Diver	23	1131
90	Fuhrman ¹	Gustaf Oscar ¹	Sweden	Channel Rock Lightship	Master	46	1105
91	Fukushima ^{1,2}		Japan	Silvery Wave	Diver	22	1133
92	Geusuki ¹ Gensuku ²		Japan	Crest of the Wave	Seaman	31	1180
93	Gisa ^{1,2}		Japan	Crest of the Wave	Seaman	36	1178
94	Gonzales ^{1,2}		Manilla	Crest of the Wave ¹	Tender	25	1234
95	Gregorio ¹ Gregoria ²	Francis ^{1,2}	Manilla	Crest of the Wave	Diver	29	1240
96	Guillermo ²		Manilla	North Wales	Crew		
97	Guivarrā ¹ Guvarra ²	Pedro ^{1,2}	Manilla	Francis (Pedro Guivarrā)	Master	28	1109
98	Haissen ¹ Hanson ²	Fred ^{1,2}	Egypt	Silvery Wave	Seaman	29	1278
99	Hamogutchi ¹ Hamaguchi ²		Japan	Silvery Wave	Carpenter	26	1130
100	Hamogutchi ¹ Hameguchi ²		Japan	Silvery Wave	Seaman	22	1166
101	Harry ^{1,2}		South Sea Islands, Rotumah	Silvery Wave	Diver	23	1118
102	Headā ^{1,2}		Japan	Sagitta	Carpenter	30	1311
103	Hongeo ¹ Honges ²		Japan	Sketty Belle	Seaman	22	1177
104	Ikwan ² Equam ²		Torres Strait, Murray Island	Rattler		36	
105	Ishikawa ¹ Ishakawa ²		Japan	Silvery Wave	Seaman	22	1165
106	Isogowa ^{1,2}		Japan	Crest of the Wave	Seaman	25	1193
107	Itchiwata ¹ Itchivala ²	Suga ¹ Luza ²	Japan	Silvery Wave	Seaman	21	1158
108	Iwa ^{1,2}		Japan	Crest of the Wave	Seaman	25	1194
109	Jacob ^{1,2}		India	Silvery Wave	Seaman	50	1273
110	Jarno ^{1,2}		Malay	Silvery Wave	Seaman	25	1207
111	Java ¹ Jack ²	Jack ¹	Java	Silvery Wave	Seaman	42	1267
112	Java ^{1,2}	Charlie ¹ Charley ²	Java	Silvery Wave	Seaman	26	1264
113	Jefferson ^{1,2}	Edward ^{1,2}	England	Silvery Wave	Master Mariner	36	1111
114	Jerokitchi ¹ Jirokichi ²		Japan	Crest of the Wave	Seaman	18	1190
115	Johnny ²		Aboriginal	Pirate (A.J. Bebrouth)	Crew		
116	Jones ¹	Daniel ¹	South America	Crest of the Wave	Seaman	21	1287
117	Joseman ^{1,2}		Java	Silvery Wave	Seaman	25	1269
118	Kamor ¹ Kansim ²		Japan	Silvery Wave	Seaman	20	1140
119	Kassner ¹	Henry ¹	German	Channel Rock Lightship	Seaman	28	1340
120	Kataoka ¹ Katooka ²		Japan	Silvery Wave	Diver	23	1144
121	Kayama ¹ Koyama ²		Japan	Silvery Wave	Carpenter	24	1134
122	Kirie ²		South Sea Islands	Silvery Wave		42	
123	Kitchel ¹		Singapore	Silvery Wave		42	1252
124	Klan ²	Emil ²	Manilla	Silvery Wave			
125	Kumenbetha ²		South Sea Islands	Silvery Wave			
126	Kusmaa ¹ Kusman ²		Malay Islands	Sagitta	Sailor	22	1331
127	Kussim ¹ Kassim ²		Malay	Silvery Wave	Seaman	23	1204
128	Lacoon ^{1,2}	Willie ^{1,2}	South Sea Islands	Crest of the Wave	Seaman	27	1127
129	Lamere ^{1,2}		South Sea Islands	Crest of the Wave	Seaman	29	1128
130	Latwako ¹		Japan	Sagitta	Sailor	35	1307
131	Lee ¹	Douglas ¹	Scotland	Channel Rock Lightship	Mate	50	1096
132	Levatee ¹ Levatee ²	John ¹ Joh ²	South Sea Islands, Malo	Sagitta	Sailor	26	1300
133	Little Jack ²		Aboriginal	Maygalle (Barney Erromanga)			
134	Longwillup ¹ Willup ²		South Sea Islands	Crest of the Wave	Seaman	25	1125
135	Lupa ¹ Lifu ²	Billy ^{1,2}	South Sea is, Hondah	Sagitta	Sailor	31	1295
136	Mabi ^{1,2}		Japan	Crest of the Wave	Seaman	27	1185
137	Macassar ¹ Bryan ²	Boyan ¹	Singapore	Silvery Wave	Seaman	25	1253
138	Mahomet ^{1,2}		Egypt	Silvery Wave	Seaman	38	1277
139	Mahomet ^{1,2}		Malay Islands	Sagitta	Sailor	23	1333
140	Mair ¹		Malay Islands	Sagitta	Diver	39	1336
141	Mallaree ¹ Aree ²	Aree ¹	South Sea Islands, Solomon	Sagitta	Sailor	26	1303
142	Manila ¹	Charley ¹	Manilla	Crest of the Wave	Seaman	32	1246
143	Manuel ^{1,2}		Manilla	Crest of the Wave	Seaman	26	1239
144	Manuel ²		Manilla	North Wales (Aplin, Brown, Co)	Crew		
145	Maraoona ¹ Manooma ²	Jim ^{1,2}	New Zealand	Sagitta	Sailor	29	1339
146	Mariam ¹ Mariana ²		Japan	Sagitta	Sailor	22	1318
147	Marloo ^{1,2}	Charlie ¹	South Sea Islands, Hondah	Sagitta	Sailor	26	1298
148	Masta ^{1,2}	George ^{1,2}	Japan	Sketty Belle	Diver	25	1170
149	Mataquii ¹ Molaquii ²	Tommy ¹ Tom ²	South Sea Islands, Lagoon	Sagitta	Sailor	41	1305
150	Matiwosuki ¹		Japan	Silvery Wave	Seaman	19	1168
151	Matsuhara ^{1,2}		Japan	Crest of the Wave	Tender	21	1179
152	Matsuhava ¹ Matsuhara ²		Japan	Silvery Wave	Tender	28	1160
153	Matsumura ¹ Matsimura ²		Japan	Silvery Wave	Seaman	41	1167
154	Matthew ¹		Manilla	Crest of the Wave	Seaman	27	1245
155	Mau ¹	Tani ¹	Japan	Sagitta	Sailor	25	1312
156	Mayden ¹ Maydin ²		Malaya	Sketty Belle	Seaman	32	1219

	A	B	C	D	E	F	G
157	Mayeda ¹ Moyeda ²		Japan	Sagitta	Sailor	24	1316
158	Mendez ^{1,2}	Antonio ^{1,2}	Timor	Silvery Wave	Seaman		1280
159	Mendoza ^{1,2}	Cataleno ¹ Catulino ²	Manilla	Crest of the Wave	Diver	26	1241
160	Minamie ¹ Minami ²		Japan	Crest of the Wave	Diver	20	1181
161	Moa ^{1,2}		South Sea Islands, Rotumah	Silvery Wave	Tender	32	1120
162	Momo ²		Malay	Sagitta			
163	Moonga ²		South Sea Islands	Silvery Wave			
164	Mottah ¹ Motlop ²	Jack ^{1,2}	South Sea Islands, Mota	Sagitta	Sailor	46	1301
165	Mottah ¹ Motlop ²	Jimmy ^{1,2}	South Sea Islands, Mota	Sagitta	Seaman	36	1302
166	Murray ^{1,2}	Robert Brown ¹ R. ²	Scotland	Sagitta	Master Mariner	37	1342
167	Murray ^{1,2}	Jack ^{1,2}	Torres Strait, Murray Is	Sketty Belle	Seaman	28	1288
168	Nakamora ¹ Nakamura ²		Japan	Sketty Belle	Seaman	27	1175
169	Nakasima ¹ Nakiamia ²		Japan	Silvery Wave	Seaman	21	1136
170	Nanda ¹	Shemona ¹	Japan	Sagitta	Diver	23	1309
171	Natu ¹ Natow ²	Jack ^{1,2}	South Sea Islands, Tanna	Sagitta	Sailor	36	1297
172	Navichi ¹ Naochi ²		Japan	Silvery Wave	Diver	26	1163
173	Neave ²	Tom ²	Japan	Sagitta			
174	Nelson ^{1,2}		South Sea Islands	Silvery Wave	Seaman	35	1116
175	Nemos ¹ Nemo ²		South Sea Islands, Api	Sagitta	Sailor	26	1306
176	Nicholas ¹		Manilla	Crest of the Wave	Seaman	26	1249
177	Nicholas ^{1,2}	John Henry ^{1,2}	Queensland	Silvery Wave	Clerk	19	1104
178	Nin ² Ninn ⁴	Jimmy ²	South Sea Islands	Rattler (Douglas Pitt)			
179	Nitty ^{1,2}		Malay Peninsula	Sketty Belle	Seaman	21	1218
180	Oaki ²		Japan	Silvery Wave			
181	Okamoto ^{1,2}		Japan	Silvery Wave	Tender	26	1169
182	Oki ^{1,2}		Japan	Crest of the Wave	Seaman	23	1172
183	Okija ¹ Okagi ²	Chunee ¹ Churee ²	Japan	Crest of the Wave	Diver	26	1171
184	Ongawa ^{1,2}		Japan	Sagitta	Sailor	20	1313
185	Onomich ^{1,2}		Japan	Crest of the Wave	Seaman	28	1183
186	Ooka ¹ Ooska ²		Japan	Silvery Wave	Tender	27	1147
187	Oosha ¹		Japan	Silvery Wave	Seaman	21	1159
188	Osaki ¹ Osaka ²		Japan	Silvery Wave	Tender	22	1150
189	Osman ^{1,2}		Singapore	Sagitta	Sailor	21	1327
190	Otozo ^{1,2}		Japan	Silvery Wave	Seaman	24	1157
191	Outridge ^{1,2}	Harold Arthur ¹ H. ²	Queensland	Sagitta	Pearler	23	1114
192	Outridge ^{1,2}	Alfred St John ¹ A. ²	Queensland	Sagitta	Manager	39	1115
193	Paoro ³		Torres Strait, Murray Island			1	
194	Pantallia ¹ Pantillia ²		Manilla	Crest of the Wave	Tender	37	1238
195	Paper ²		New Guinea, Lever River	Pirate (A.J. Bebrouth)	Crew		
196	Perera ¹ Pablo ²	Pablo ¹	Manilla	Sagitta	Sailor	30	1320
197	Perez ¹	Marco ¹	Manilla	Admiral	Master	49	1112
198	Perez ¹	Marcus ¹	Manilla	Crest of the Wave	Seaman	46	1248
199	Po ³		Torres Strait, Murray Island			29	
200	Pow ^{1,2}	Jim ¹ Jam ²	South Sea Islands, Rotumah	Silvery Wave	Seaman	59	1123
201	Powell ²	William ²	NSW	North Wales (Aplin, Brown, Co)	Captain		
202	Radin ²	Raphael ²	Manilla	Silvery Wave			
203	Rassemin ¹ Kassimin ²		Java	Silvery Wave	Seaman	22	1268
204	Rattay ²		Manilla	Silvery Wave			
205	Remontal ^{1,2}	Domingo ¹ Dominigo ²	Manilla	Crest of the Wave	Seaman	23	1235
206	Reste ¹ Reate ²	Roderigo ^{1,2}	Manilla	Crest of the Wave	Diver	23	1243
207	Reuben ^{1,2}		South Sea Islands, Rotumah	Silvery Wave	Tender	24	1122
208	Robina ^{1,2}	Emilio ^{1,2}	Manilla	Crest of the Wave	Diver	24	1242
209	Roman ¹ Koman ²		Manilla	Silvery Wave	Seaman	40	1229
210	Rotumah ^{1,2}	Jim ^{1,2}	South Sea Islands, Rotumah	Sagitta	Sailor	37	1292
211	Saigai ^{1,2}		Japan	Silvery Wave	Seaman	26	1139
212	Sakamoto ^{1,2}		Japan	Sagitta	Sailor	23	1308
213	Sakamoto ^{1,2}		Japan	Crest of the Wave	Seaman	24	1182
214	Salakin ^{1,2}		Malaya	Silvery Wave	Seaman	27	1203
215	Sallee ¹ Sall ²		Singapore ¹ Malaya ²	Sagitta	Sailor	26	1328
216	Sallie ¹ Sall ²	Ahmat ^{1,2}	Hong Kong	Silvery Wave	Seaman	23	1283
217	Sally ^{1,2}		Singapore	Sagitta	Sailor	25	1326
218	Salman ¹		Java	Sagitta	Sailor	25	1338
219	Santiago ¹		Manilla	Crest of the Wave	Seaman	23	1247
220	Sasaki ¹ Susaki ²		Japan	Sagitta	Sailor	27	1317
221	Satoraka ²		Japan	Sagitta			
222	Sedior ^{1,2}		Java	Silvery Wave	Seaman	40	1266
223	Seedin ^{1,2}		Java	Silvery Wave	Seaman	30	1270
224	Serriman ^{1,2}		Malaya	Crest of the Wave	Seaman	30	1221
225	Shiba ^{1,2}		Japan	Silvery Wave	Seaman	20	1142
226	Shibosaki ¹ Shibasaki ²		Japan	Silvery Wave	Diver	22	1132
227	Shimotto ¹ Shimoto ²		Japan	Crest of the Wave	Seaman	20	1189
228	Siemon ^{1,2}		Malay Peninsula	Sketty Belle	Seaman	30	1215
229	Simamotu ^{1,2}		Japan	Silvery Wave	Tender	34	1148
230	Simatsu ¹ Oaki ²	Oaki ¹	Japan	Silvery Wave	Tender	25	1137
231	Simosae ¹		Japan	Silvery Wave	Seaman	19	1138
232	Singapore ^{1,2}	Bob ^{1,2}	Singapore	Sagitta	Sailor	30	1324
233	Sitamoto ^{1,2}		Japan	Silvery Wave	Diver	28	1146
234	Solomon ¹ Peter ²	Peter ¹	South Sea Islands, Solomon	Sagitta	Sailor	27	1291

	A	B	C	D	E	F	G
235	Solomon ^{1,2}	Joe ^{1,2}	South Sea Islands	Silvery Wave	Seaman	28	1117
236	Solomon ²		South Sea Islands, Solomon	Sagitta		24	
237	Spaniel ^{1,2}	Pedro ^{1,2}	Manilla	Silvery Wave	Seaman	28	1230
238	Staro ¹ Itaro ²		Japan	Sagitta	Diver	27	1310
239	Suatura ¹ Suataro ²	Gamasaki ¹ Yamasuki ²	Japan	Sagitta	Sailor	21	1314
240	Suga ¹ Suka ²		Japan	Sketty Belle	Diver	23	1186
241	Sugimoto ^{1,2}		Japan	Silvery Wave	Diver	23	1161
242	Suka ¹ Suki ²	Matain ²	Japan	Sketty Belle	Diver	21	1174
243	Sukuchira ²	Suga ²	Japan	Crest of the Wave			
244	Sullivan ^{1,2}		South Sea Islands, Solomon	Crest of the Wave	Seaman	24	1129
245	Sutepio ^{1,2}		Japan	Silvery Wave	Seaman	22	1141
246	Sylvester ^{1,2}	Leoni ¹ Leon ²	Manilla	Sagitta	Sailor	33	1319
247	Tamada ¹ Tameda ²		Japan	Silvery Wave	Tender	25	1153
248	Tamaguchi ^{1,2}		Japan	Crest of the Wave	Seaman	24	1187
249	Tamonishi ¹ Tamoniski ²		Japan	Silvery Wave	Diver	21	1162
250	Tanaka ^{1,2}	Ya Satara ¹	Japan	Silvery Wave	Diver	26	1156
251	Tanikawa ¹ Kawa ²		Japan	Silvery Wave	Diver	30	1143
252	Tanimatsu ¹ Taminatsu ²		Japan	Silvery Wave	Tender	25	1152
253	Tanioka ¹ Tanioka ²		Japan	Silvery Wave	Tender	32	1154
254	Tanna ^{1,2}	Tom ^{1,2}	South Sea Islands, Tanna	Sagitta	Sailor	27	1289
255	Tashima ¹ Tashino ²		Japan	Crest of the Wave	Seaman	22	1184
256	Tasima ¹ Tasema ²		Japan	Silvery Wave	Cook	23	1135
257	Temora ¹ Tamara ²	Tokio ^{1,2}	Japan	Sagitta	Sailor	23	1315
258	Tenatsekie ¹ Tinasetsee ²	Charley ¹	South Sea Islands, Solomon	Sagitta	Sailor	26	1304
259	Terriman ¹ Serriman ²		Java	Silvery Wave	Seaman	33	1262
260	Tonga ^{1,2}	George ^{1,2}	South Sea Islands	Silvery Wave		24	1113
261	Tuason ¹ Tuxan ²	Theodora ¹ Theodor ²	Manilla	Crest of the Wave	Seaman	32	1237
262	Unknown ³		Aboriginal, Bathurst Bay				
263	Unknown ³		Aboriginal, Bathurst Bay				
264	Unknown ³		Aboriginal, Bathurst Bay				
265	Unknown ³		Aboriginal, Bathurst Bay				
266	Unknown ³		Aboriginal, Bathurst Bay				
267	Unknown ³		Aboriginal, Barrow Point,				
268	Unknown ³		Aboriginal, Barrow Point,				
269	Unknown ³		Aboriginal, Barrow Point,				
270	Unknown ⁶		Aboriginal	La France/Caledonia	Crew		
271	Unknown ⁶		Aboriginal	La France/Caledonia	Crew		
272	Unknown ⁶		Aboriginal	La France/Caledonia	Crew		
273	Unknown ⁶		Aboriginal	La France/Caledonia	Crew		
274	Unknown ⁶		Aboriginal	La France/Caledonia	Crew		
275	Unknown ⁶		Aboriginal	La France/Caledonia	Crew		
276	Unknown ⁶		Bengal	La France/Caledonia	Crew		
277	Unknown ⁶		French colonies	Caledonia	Captain		
278	Unknown ⁶		French colonies	La France	Captain		
279	Unknown ⁷			Meg Merrilies			
280	Unknown ⁷			Meg Merrilies			
281	Unknown ⁷			Meg Merrilies			
282	Unknown ⁷			Meg Merrilies			
283	Unknown ⁷			Meg Merrilies			
284	Unknown ⁷			Meg Merrilies			
285	Unknown ⁷			Meg Merrilies			
286	Unknown ⁷			Meg Merrilies			
287	Unknown ⁷			Meg Merrilies			
288	Ushima ¹ Nishimo ²		Japan	Silvery Wave	Tender	28	1151
289	Usin ^{1,2}		Singapore	Sketty Belle	Seaman	32	1255
290	Usopha ¹ Kusop ²	Mahomet ¹	Malaya	Sagitta	Sailor	25	1335
291	Veda ¹ Lodo ²	Sido ^{1,2}	Manilla	Crest of the Wave	Tender	27	1233
292	Versden ¹ Versoni ²	Pelle ¹ Pelli ²	South Sea Islands, Rotumah	Silvery Wave	Diver	27	1119
293	Wilson ^{1,2}		Singapore	Sketty Belle	Seaman	24	1258
294	Yabboo ¹ Yahboo ²		Japan	Sketty Belle	Seaman	27	1176
295	Yamamoto ^{1,2}	Esetu ¹ Eseta ²	Japan	Silvery Wave	Tender	23	1155
296	Yamoshita ¹ Yamashito ²	Sukumatsu ¹ F. ²	Japan	Crest of the Wave	Diver	26	1192
297	Yatchoo ¹ Batchoo ²		Malay Islands	Sagitta	Sailor	40	1332
298	Yoshi ¹ Yoski ²		Japan	Silvery Wave	Seaman	18	1164
299	Yoshmat ¹ Yoshimat ²		Japan	Silvery Wave	Diver	25	1145
300	Yosikawa ^{1,2}		Japan	Silvery Wave	Tender	25	1149
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302	Births, Deaths and Marriages, QSA, ID1273107.						
303	2. George Bennett, "Return Giving Names and Nationality of Persons Belonging to Pearling Fleet Lost in Hurricane of 4th and 5th March, 1899, in Neighbourhood of Cape						
304	Melville", in T. M. Arnold, "Report on the Marine Department for the Year 1898-1899", QVP, 3, 24 September 1899, 20–24.						
305	3. Walter Roth to Under Secretary Home Office, "Report Re Distribution of Gifts to Coastal Aboriginals", 9 April 1899, HOM/A23/99/5252, QSA, ID847561						
306	4. Frank Illidge, "The Log of the Lally", <i>Northern Herald</i> (Cairns), 5 December 1923, 30.						
307	5. A. C. Haddon (ed.), <i>Reports of the Cambridge Anthropological Expedition to Torres Strait</i> , Cambridge: University Press, 1, 1935, 112.						
308	6. Douglas Pitt Snr, in "The Late Hurricane. Return of the Warrego. Reports from the Boats", <i>Brisbane Courier</i> , 20 March 1899, 6.						
309	7. Captain William Thompson in "The Late Hurricane. Return of the Warrego. Reports from the Boats", <i>Brisbane Courier</i> , 20 March 1899, 6.						
310							
311							

Appendix 2: Observations relevant to modelling the 1899 cyclone

Date event	Time	Observations	Tides/Sunrise/Sunset	Wind direction and strength	Rain	Latitude	Longitude	Vessel/place/reference
1 March 1899	0600	1007.45hPa (29.75inHg)				13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
1 March 1899	0900	1006.09 hPa(29.71inHg)				13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
1 March 1899	1200	1006.77hPa (29.73inHg)				13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
1 March 1899	1500	1005.41hPa (29.69 inHg)				13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
1 March 1899	1800	1005.41hPa (29.69inHg)				13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
2 March 1899	0600	1006.43hPa (29.72inHg)				13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
2 March 1899	0900	1007.45hPa (29.75inHg)				13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
2 March 1899	1200	1006.09hPa (29.71inHg)				13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
2 March 1899	1500	1004.06hPa (29.65inHg)				13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
2 March 1899	1800	1005.41hPa (29.69inHg)				13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
3 March 1899	0600	1006.09hPa (29.71inHg)				13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
3 March 1899	0900	1007.45hPa (29.75inHg)				13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
3 March 1899	1200	1005.75hPa (29.70inHg)				13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
3 March 1899	1500	1005.08hPa (29.68inHg)				13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
3 March 1899	1800	1004.40hPa (29.66inHg)				13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
4 March 1899	0226		High tide at Munro Reef 1.95m			14°18'S	144°43'E	Munro Reef ²
4 March 1899	0303		High tide at Leggatt Island 2.09m			14°31'S	144°51'E	Leggatt Is ²
4 March 1899	0600	1004.40hPa (29.66inHg)				13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
4 March 1899	0900	1005.75 hPa (29.70inHg)				13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
4 March 1899	0600-1200			S, light		13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
4 March 1899	1200			Calm		13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
4 March 1899	1200	1002.03hPa (29.59inHg)				13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
4 March 1899	1300-1400			SE, light	Fine	14°30'16"S	144°45'23"E	<i>North Wales</i> ³
4 March 1899	1400-1500			SE, squall followed by light wind	Sharp squall	13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
4 March 1899	1500	1001.35hPa (29.57inHg)				13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
4 March 1899	<1730			SE, light breeze	Drizzling rain	14°30'30"S	144°39'30"E	Cape Bowen ⁴
4 March 1899	<1730			"Light air"		13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
4 March 1899	1730			SE, "with a rush"		13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
4 March 1899	1800				Heavy rain started	14°30'16"S	144°45'23"E	<i>North Wales</i> ³
4 March 1899	<1800			Until 6pm, <i>Aladdin</i> did not expect "anything more than a breeze"		13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
4 March 1899	1800	1002.7hPa (29.61inHg)				13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹
4 March 1899	1800			"Not much wind"	Raining	14°11'2.93"S	144°27'51.20"E	<i>Zoe</i> ⁵
4 March 1899	1800			SE, going SSE, fresh	Rain set in	14°10'39.25"S	144°25'55.58"E	<i>Crest of the Wave</i> ⁷
4 March 1899	1844		Sunset			14°10'S	144°29'E	Cape Melville ⁸
4 March 1899	1844	1002.37hPa (29.60inHg)			"A light rain set in"	14°10'39.25"S	144°25'55.58"E	<i>Crest of the Wave</i> ⁷
4 March 1899	1900			E, moderate breeze		13°53'49.86"S	143°49'29.12"E	<i>Meg Merrilies</i> ⁹
4 March 1899	1900-1159			SE, moderate, freshening all evening		13°53'49.86"S	143°49'29.12"E	<i>Meg Merrilies</i> ⁵
4 March 1899	2020		Low tide Munro Reef 1.21m			14°18'S	144°43'E	Munro Reef ²
4 March 1899	2032		Low tide Leggatt Island 1.39m			14°31'S	144°51'E	Leggatt Is ²
4 March 1899	2100	Air pressure falling fast		SE, "fearfully hard"		14°10'39.25"S	144°25'55.58"E	<i>Crest of the Wave</i> ¹⁰
4 March 1899	2100	Unnamed boat sinks				14°19'S	144°50'E	<i>Spray</i> ⁹
4 March 1899	2200	Mrs Porter sea sick				14°10'39.25"S	144°25'55.58"E	<i>Crest of the Wave</i> ⁵
4 March 1899	2100-2200			SE, strong		14°30'16.00"S	144°45'23.00"E	<i>North Wales</i> ³
4 March 1899	2100-2200			SW		14°11'2.93"S	144°27'51.20"E	<i>Zoe</i> ⁵
4 March 1899	2200	1002.37hPa (29.60inHg)				13°55'33.00"S	143°44'53.00"E	<i>Olive</i> ⁹
4 March 1899	2200			Wind, strong "off the land", <i>Crest of the Wave</i> drags N		14°10'39.25"S	144°25'55.58"E	<i>Crest of the Wave</i> ¹⁰
4 March 1899	>2215	Unnamed cutter sinks				14°30'17.41"S	144°45'37.44"E	<i>North Wales</i> ³
4 March 1899	2300			SW		13°55'56"S	143°44'41"E	<i>Aladdin</i> ¹

4 March 1899	2300	North Wales drags anchor		SE to S		14°30'16.00"S	144°45'23.00"E	North Wales ³
4 March 1899	2300	995.59hPa (29.40inHg)				14° 8'S	144°26'E	Crest of the Wave ⁷
4 March 1899	2300-2400			Wind increasing		14° 8'S	144°26'E	Crest of the Wave ⁶
4 March 1899	2330			Wind veering to S	Rainy squalls	14° 7'28"S	144°26'E	Crest of the Wave ⁷
4 March 1899	2330			SSE, "Stiff wind", increasing		14°28'47.25"S	144°36'48.52"E	Wakooka Creek ⁴
4 March 1899	1150 +/- 05	North Wales drops second anchor				14°27'26.78"S	144°44'14.24"E	North Wales ³
4 March 1899	1150 +/- 05	Adriana overboard				14°27'26.78"S	144°44'14.24"E	North Wales ³
4 March 1899	0000 +/-10	Rattler drags anchor		SE		14°25'27.83"S	144°51'58.47"E	Rattler ¹¹
4 March 1899	0000-0700	Jamaica describes wind change during the night		SE, veering to E to NW		14°41'22.68"S	145°27'21.02"E	Jamaica ¹
4 March 1899	0000 +/-10			E		14°19'10.69"S	144°50'56.69"E	Spray ⁹
4 March 1899	0000	Zoe hits Inner Boulder Rocks				14° 9'54.56"S	144°29'14.13"E	Zoe ⁵
4 March 1899	0000			Little Bill sinks, Albert and Moses swept NE		14° 9'54.56"S	144°29'14.13"E	Little Bill ⁶
4 March 1899	0000	North Wales sinks				14°27'26.78"S	144°44'14.24"E	North Wales ³
4 March 1899	0000			Wind veers SW, hurricane force		13°53'50.12"S	143°49'29.12"E	Meg Merrilies ⁵
4 March 1899	0000	982.05hPa (29inHg)				14° 7'S	144°26'E	Crest of the Wave ⁷
4 March 1899	0000			Meg Merrilies drags NE		14°27'26.78"S	144°44'14.24"E	Meg Merrilies ⁹
4 March 1899	0000			Trooper's tent blown away		14°28'47.25"S	144°36'48.52"E	Wakooka Creek ⁴
5 March 1899	0005				Pelting rain, vivid lightning	14°28'47.25"S	144°36'48.52"E	Wakooka Creek ⁴
5 March 1899	0100	948.18hPa (28inHg)				14° 6'S	144°26'E	Crest of the Wave ⁷
5 March 1899	0200			SE to E, hurricane force		14°28'47.25"S	144°36'48.52"E	Wakooka Creek ⁴
5 March 1899	0300	Waves wash away whaleboat				13°51'S	143°52'E	Meg Merrilies ⁹
5 March 1899	0300	Tarawa driven ashore				13°54'43.08"S	143°50'7.78"E	Tarawa ⁹
5 March 1899	0300-0400	Luggers sink in a line west of Boulder Rocks				14° 9'18.79"S	144°28'2.57"E	Boomerang and others (James Clark) ¹⁴
5 March 1899	0330	Zanoni sinks				14° 9'54.56"S	144°29'14.13"E	Inner Boulder Rocks ⁵
5 March 1899	0430	880.46hPa (26inHg)				14° 4'39.06"S	144°25'53.28"E	Crest of the Wave ¹⁰
5 March 1899	0445-0455	Cyclone eye passes		Calm		14° 4'39.06"S	144°25'53.28"E	Crest of the Wave ⁷
5 March 1899	>0430	Lull		Calm		14° 4'39.06"S	144°25'53.28"E	Crest of the Wave ¹⁰
5 March 1899	>0500			Calm 10 minutes		14° 6'S	144°23'E	Estelle ⁶
5 March 1899	0500	Barometer began to rise		NW, "with great force"		14° 4'39.06"S	144°25'53.28"E	Crest of the Wave ⁷
5 March 1899	0500			NW, "terrific"		14° 4'39.06"S	144°25'53.28"E	Crest of the Wave ¹⁰
5 March 1899	0500			Veering NE, "harder than ever"	Torrents of rain	14°28'47.25"S	144°36'48.52"E	Wakooka Creek ⁴
5 March 1899	0511		High tide at Munro Reef 2.19m			14°18'00"S	144°43'00"E	Munro Reef ²
5 March 1899	0514		High tide at Leggatt Island 2.33m			14°31'00"S	144°51'00"E	Leggatt Is ²
5 March 1899	0505 +/-10	Storm surge				14°28'47.25"S	144°36'48.52"E	Wakooka Creek ⁴
5 March 1899	0530 +/-30	Adriana washed ashore "high up on the land"				14°26'S	144°37'11.44"E	Bowen Bay ³
5 March 1899	0530			NW, stronger, "quite hot"		14° 6'S	144°23'E	Estelle ⁶
5 March 1899	0600	Silvery Wave sinks				14°10'3.34"S	144°27'33.49"E	Silvery Wave ⁹
5 March 1899	0600	Estelle sinks				14° 6'S	144°23'E	Estelle ⁶
5 March 1899	0600	985.10hPa (29.09inHg)				13°56'58.53"S	143°46'36.60"E	Aladdin ¹
5 March 1899	0600	985.40hPa (29.10inHg)				13°56'46.29"S	143°45'54.92"E	Olive ⁹
5 March 1899	0624		Sunrise			14°10'S	144°29'E	Cape Melville ⁸
5 March 1899	>0624 (dawn)	Crest of the Wave sinking				14° 5'S	144°27'E	Crest of the Wave ¹⁰
5 March 1899	>0624 (dawn)	Meg Merrilies grounded		W		13°48'44.80"S	143°57'6.99"E	Meg Merrilies ⁵
5 March 1899	>0624 (dawn)			W, "still blowing stiffly"		13°56'46.29"S	143°45'54.92"E	Olive ⁹
5 March 1899	>0624 (dawn)			Wind at its height, W by N (halfway between due W and WNW)		13°56'58.53"S	143°46'36.60"E	Aladdin ¹
5 March 1899	0700	< 985.10hPa (29.09inHg)		W		13°56'58.53"S	143°46'36.60"E	Aladdin ¹
5 March 1899	0700-1000				Rain heaviest	13°56'58.53"S	143°46'36.60"E	Aladdin ¹
5 March 1899	0700	948.18hPa (28inHg)				14° 6'45.42"S	144°27'35.51"E	Crest of the Wave ⁷
5 March 1899	0800	982.05hPa (29inHg)				14° 6'45.42"S	144°27'35.51"E	Crest of the Wave ⁷

5 March 1899	>0800	988.82hPa (29.2inHg)			14° 6'45.42"S	144°27'35.51"E	<i>Crest of the Wave</i> ⁷
5 March 1899	0900	989.50hPa (29.22inHg)			13°56'58.53"S	143°46'36.60"E	<i>Aladdin</i> ¹
5 March 1899	1000		Not properly daylight until 1000		14°28'47.25"S	144°36'48.52"E	Wakooka Creek ⁴
5 March 1899	1000			NW, "dies away"	13°56'46.29"S	143°45'54.92"E	<i>Olive</i> ⁹
5 March 1899	1200	995.25hPa (29.39inHg)		NW, "strong breeze" continuing to veer N	13°56'58.53"S	143°46'36.60"E	<i>Aladdin</i> ¹
5 March 1899	1200	Seto washed ashore			14°11'34.30"S	144°29'0.99"E	Bathurst Bay ⁶
5 March 1899	1200	995.25 (29.39inHg)			13°56'58.53"S	143°46'36.60"E	<i>Aladdin</i> ¹
5 March 1899	1500	996.95hPa (29.44inHg)			13°56'58.53"S	143°46'36.60"E	<i>Aladdin</i> ¹
5 March 1899	1600	997.29hPa (29.45inHg),		NW, easing. The wind went from SE to SSE, S, SSW, SW and NW.	14° 6'45.42"S	144°27'35.51"E	<i>Crest of the Wave</i> ⁷
5 March 1899	1800	1000.33hPa (29.54inHg)		NNE, fresh	13°56'58.53"S	143°46'36.60"E	<i>Aladdin</i> ¹
5 March 1899	>1843	Moira Newi washed ashore			14°22'S	144°38'30"E	Barrow Point ¹²
5 March 1899	1800	1000.33hPa (29.54inHg)			13°56'58.53"S	143°46'36.60"E	<i>Aladdin</i> ¹
6 March 1899	0000-0500			All buildings at Musgrave blown down	14°46'50.39"S	143°30'12.28"E	Musgrave ¹³
6 March 1899	0000-0500	Telegraph line down		Northern extent of line damage	14°17'45.93"S	143°28'4.46"E	Near Coen ¹³
6 March 1899	>1200	Douglas Pitt Jnr, Mary Pitt, and William Savage washed ashore			14°31'19.90"S	144°40'5.68"E	Cape Bowen ¹¹
Reference key:							
1. Simon Edwin Munro's notes in his own hand, provided by Duncan McArdle, husband of Catriona Mary Munro McArdle, Edwin Munro's granddaughter. Photocopy from Munro family papers.							
2. Tidal Unit, Maritime Safety Queensland, Brisbane. Tidal readings provided on 23 August 2018.							
3. "Statement of Adrianna, Manilla", in William Hamilton, "Account of Prospecting Voyages for Pearl Shell in New Guinea and the Solomons 1899-1901", John Oxley Library, OM71-4, 1.							
4. "Northern Hurricanes", <i>Telegraph</i> (Brisbane), 17 April 1899, 5.							
5. W. T. Atkinson, Reports and Decisions on Shipping Accidents, "Marine Board of Queensland Report on the Stranding of the Meg Merriies", 4 April 1899, HAR/81, QSA, ID84435							
6. Anonymous, <i>The Pearling Disaster, 1899: A Memorial</i> , Brisbane: Outridge Printing Company, 1899.							
7. John Douglas, "Report of the Government Resident at Thursday Island for 1898", <i>QVP</i> , 1, 1899.							
8. Sunrise and Sunset Results, "Sunrisenset Program, Version 2.2", Geoscience Australia's National Mapping Division, 2005. http://www.ga.gov.au/bin/geodesy/run/sunrisenset .							
9. "The Late Hurricane. Return of the Warrego. Reports from the Boats", <i>Brisbane Courier</i> , 20 March 1899, 6.							
10. "The Great Hurricane at Queensland. A Struggle for Life. An Auckland and His Wife and Child. Forcing the Blacks to the Pumps", <i>New Zealand Herald</i> (Supplement), 1 April 1899, 1.							
11. "The Log of the Lally", <i>Northern Herald</i> (Cairns), 5 December 1923, 30.							
12. Ion Idriess ("Gouger"), <i>Bulletin</i> , 11 August, 1927.							
13. "Late Bowen Cyclone", <i>Brisbane Courier</i> , 14 March 1899, 4.							
14. "Disastrous Weather." <i>Torres Straits Pilot</i> , 11 March 1899.							
(NB: The observations selected represent the best evidence. They are not uniformly credible nor are they precise. This is taken into account when remodelling the cyclone in Chapter Five.)							

Appendix 3: Ethical clearance for research involving human participants



School of History, Philosophy,
Religion & Classics
Head of School
Associate Professor Martin Crotty
CRICOS PROVIDER NUMBER 000258

12th December, 2014

Dear Ian,

Please be advised your Application for Ethical Clearance has now been approved by the School of History, Philosophy, Religion and Classics.

Regards

A handwritten signature in black ink, appearing to read 'Peter Spearritt'.

Professor Peter Spearritt
Acting Head of School