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A PYGMY RIGHT WHALE *CAPEREA MARGINATA* (GRAY, 1846) STRANDED AT STANLEY, TASMANIA

by B.L. Munday, R.H. Green and D.L. Obendorf
Mt Pleasant Laboratories, Department of Agriculture
Launceston South (B.L.M. and D.L.O.) and
Queen Victoria Museum and Art Gallery, Launceston

(with one plate and one table)

ABSTRACT

MUNDAY, B.L. GREEN, R.H. and OBENDORF, D.L., 1982 (31 viii): A pygmy right whale *Caperea marginata* (Grey, 1846) stranded at Stanley, Tasmania. *Pap. Proc. R. Soc. Tasm.*, 116: 1-4. https://doi.org/10.26749/rstpp.116.1 ISSN 0080-4703. Department of Agriculture, Launceston South and Queen Victoria Museum and Art Gallery, Launceston, Tasmania.

A pregnant female pygmy right whale, *Caperea marginata* (Gray, 1846) which stranded at West Beach, Stanley was examined within 24 hours of stranding. No significant pathological condition was detected in the carcase thus eliminating disease as the likely cause of stranding. However, the area is a notorious "whale trap", and it is therefore assumed that geographical and hydrological conditions accounted for the stranding. A number of interesting anatomical features are noted.

INTRODUCTION

On 10th September 1981 a female pygmy right whale *Caperea marginata* (Gray, 1846) was reported to have been stranded on West Beach, Stanley. Though dead, it was in fresh condition and had apparently come ashore the previous night. On the following morning, two pathologists, one from Mt Pleasant Laboratories and one visiting from the Ontario Veterinary College, Canada, drove to the site to examine the whale, gather data and obtain specimens for further investigation.

West Beach is on the western side of the Stanley Peninsula facing Perkins Bay, a shallow, semi-enclosed stretch of water with a sandy bottom. Owing to the topography, the tide can recede up to half a kilometre.

OBSERVATIONS

The whale was found to be lying on its left side and facing north (parallel to the beach). It had raw ulcers on the right mandible and recently healed ulcers above the right eye. There were numerous healed lesions overall and a bleeding wound posterior to the genital aperture. Dimensions of the whale are given in table I.

Upon dissection, the whale was found to be pregnant, carrying a female foetus of 600 gm and of a total length of 0.38 m. This foetus had a relatively well-developed head with a prominent mouth but lacked any indication of baleen development. The auditory meatus was barely discernible as a pin-prick indentation, the blowhole was open and the eyes just open as a 5 mm slit across the lower half of the eyeball. The entire skin (after preservation) was a pale cream with some pale grey subcutaneous shading. The presumed corpus luteum of pregnancy was present in the left ovary, which also had at least 14 corpora albicantes and 24 follicles up to 20 mm in diameter. The right ovary supported at least 31 follicles of up to 25 x 40 mm and 11 corpora albicantes. No milk was present in the mammary gland. The placenta was villous epitheliochorial in structure.

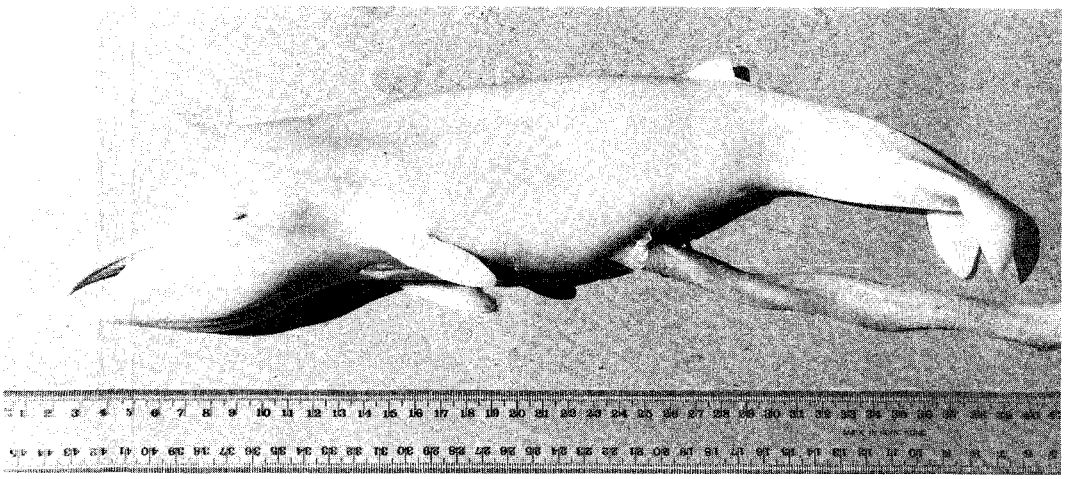

PLATE 1.- The female foetus which was taken from a pigmy right whale stranded at West Beach, Stanley, on 10th September 1981.

The larynx was surrounded by spongy tissues which communicated freely with both the oropharynx and the larynx itself. These tissues consisted of a connective tissue matrix permeated by channels lined by tall columnar epithelium and interspersed with areas of mucus-secreting glands. The ventral aspect of the larynx opened into a large diverticulum, which had a honeycombed internal surface lined by glandular epithelium and was surrounded by a thick muscular wall.

The stomach consisted of four distinct compartments. The first, and largest, was a simple diverticulum lined by non-glandular squamous epithelium. The tubiform second compartment was lined by mucus-secreting epithelium approximately 7.5 mm thick. Fundic (acid- and enzyme-secreting cells) glands lined the surface of the third compartment which had an epithelium approximately 15 mm thick. This organ was elongated with numerous transverse rugae on its mucosal surface. The fourth "stomach" was the smallest compartment. It was globose with a smooth glandular lining and was the point of entry of the single bile duct. This organ contained bile-coloured fluid and an "ambergris" soft-stone approximately 40 mm in diameter.

The caecum was 0.5 m long and had no taenia. Trematodes 7-8 mm in length were present in this organ and the proximal colon.

The head was removed and lodged with the Queen Victoria Museum for skull preparation (Reg. No. 1981/1/165). The foetus (Reg. No. 1981/1/166) and ovaries (Reg. No. 1981/1/167) have been preserved in 4% formalin and also lodged with that museum.

DISCUSSION

Previous reports of pygmy right whale strandings in Tasmania are limited. Davies and Guiler (1957) and Guiler (1978) presented results of their investigations into pygmy right whale strandings, including a number from Tasmanian waters, and provide some photographs of an adult female at Ralphs Bay on 23rd June 1956.

Guiler (1961) recorded "the first evidence of breeding in this species" following his examination of a female (total length 6.37 m) stranded at Eaglehawk Neck on the night of 26th June 1961. That specimen was carrying a foetus of 3 kg and of a total length of 0.6 m (lodged in the collections of the Zoology Department, University of Tasmania) and was thus five times the body weight and twice the total length of our Stanley foetus. As our specimen was collected about 11 weeks later (seasonally) it appears that breeding in this species is not confined to a restricted season.

It is commonly asserted "that in the case of single strandings", the animal is generally in an advanced state of disease" (Bergin 1978). This was not the case with the pygmy right whale stranded at Stanley which was suffering from no detectable disease and carried very few parasites. It is more likely that the animal became disorientated in unfamiliar territory where sonar navigation could be impeded by the very gradual slope of the bottom. Indeed, strong northwesterly winds, such as those occurring at the time, could be expected to back up water to the beach at high tide leading to completely erroneous feed-back from the animal's sonar soundings.

ACKNOWLEDGEMENTS

The authors wish to express their thanks for the assistance of Mr Robin King, National Parks and Wildlife Service, who reported the stranding and assisted with the on-site examination. Valuable assistance was also rendered by Dr I.K. Barker and Mr T. Black.

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ADDENDUM

Another pregnant, pygmy right whale stranded at West Inlet, Perkins Bay, on 15.6.82. It is believed that this 6 metre animal came ashore on a very high tide the previous evening. This animal carried a foetus approximately two metres in length, further indicating that breeding is not confined to a restricted season.

TABLE I

Measurements (mm) of a specimen of a female pygmy right whale stranded at West Beach, Stanley. The index numbers and dimensions are after Norris (1961).

Index Number	Feature	Dimension
1	Length to fluke notch	6450
2	Length to mid-eye	1280
4	Length to gape	1040
5	Length to auditory meatus	1060
6	Mid-eye to auditory meatus	380
7	Mid-eye to angle of gape	220
8	Mid-eye to mid-blowhole	870
9	Head length to blowhole	900
10	Length to pectoral	1890
11	Length to tip of dorsal fin	4610
12	Length to mid-umbilicus	3470
13	Length to mid-genital slit	4700
14	Length to mid-anus	4920
15	Projection of lower jaw	180
17	Blubber thickness at mid-dorsum	60
18	Blubber thickness at mid-lateral	20
19	Blubber thickness at mid-ventrum	40
21	Half girth at axilla	1840
23	Half girth at anus	1210
24	Length of eye	50
25	Length of right mammary slit	120
	length of left mammary slit	90
26	Length of genital slit	690
27	Width of blowhole	110
	Length of blowhole	200
28	External auditory meatus	30x10
29	Length of pectoral, anterior	760
30	Length of pectoral, posterior	470
31	Width of pectoral, maximum	200
32	Height of dorsal fin	300
33	Length of dorsal fin base	440
34	Width of flukes	2000
35	Anterior of fluke to notch	480
36	Depth of notch	90

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TASMANIAN TERTIARY FORAMINIFERIDA. PART 3.

DISCORBACEA (EPONIDIDAE) TO NONIONACEA

by Patrick G. Quilty
Antarctic Division, Kingston, Tasmania
(formerly Macquarie University)

(with three text-figures and six plates)

ABSTRACT

QUILTY, P.G., 1982 (31 viii): Tasmanian Tertiary Foraminiferida. Part 3. Discorbacea (Eponididae) to Nonionacea. *Pap. Proc. R. Soc. Tasm.*, 116: 5-51. ISSN 0080-4703. Antarctic Division, Department of Science, Kingston, Tasmania.

This final part recording the Tasmanian Tertiary benthonic Foraminiferida documents the occurrence of 77 taxa of which 65 are previously defined, four are compared with previously defined species and eight are identified generically only. No species are new. Five forms recorded in parts 1 and 2 are noted from a newly discovered sample from Welcome River.

INTRODUCTION

This is the third part of a series of papers in this journal designed to document the Oligo-Miocene Foraminiferida of Tasmania and completes discussion of the benthic forms. The previous papers are those by Quilty (1974, 1977) and the conventions of occurrence are common to the three papers and are explained in Quilty (1974). Several new forms were described by Quilty (1980) are are simply recorded here. The stratigraphic framework of the Tasmanian Tertiary marine rocks was explained in Quilty (1972).

The classification of the Foraminiferida followed here is the same as in Quilty (1977) and is that proposed by Loeblich and Tappan (1974). Ages are quoted in terms of the N zones of Blow (1969). Occurrences are listed approximately from oldest to youngest.

Since the last of the series was published, another locality has been sampled and has yielded an interesting foraminiferid fauna. The locality is near the mouth of the Welcome River (figure 1) and was sampled by Mr G. van der Geer of the Geography Department, University of Tasmania. The rock specimen is catalogued in the collections of the Geology Department, University of Tasmania (UTGD) under the catalogue number UTGD 45979. The rock consists of a friable partly recrystallised bryozoal calcarenite. Preservation is quite good.

Several species from this new fauna are relevant to parts 1 and 2 of this series. They are:

Textularia gramen d'Orbigny (r); *Gaudryina convexa* (Karrer) (r); *Heronallenia lingulata* (Burrows & Holland) (r); *Glabratella crassa* Dorreen (r); *Pileolina* sp. indet. (r).