

# FISHERIES LAW IN ACTION:

## An exploration of legal pathways to a better managed marine environment



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Cover photography courtesy of Benjamin Croce:

*Dawn over Holy Isle and*

*Clouds over Ailsa Craig*

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### ABBREVIATIONS

EU	European Union
CFP	Common Fisheries Policy
COAST	Community of Arran Seabed Trust
Defra	Department for Food, the Environment and Rural Affairs
ECJ	European Court of Justice
EMS	European Marine Site
IFCA	Inshore Fisheries and Conservation Authority
MACAA	Marine and Coastal Access Act 2009
MCS	Marine Conservation Society
MCZ	Marine conservation zone
MMO	Marine Management Organisation
MPA	Marine Protected Area
OSPAR	Oslo-Paris Convention for the Protection of the Marine Environment for the North-East Atlantic
SAC	Special Area of Conservation
SPA	Special Protection Area
UKOT	United Kingdom Overseas Territory
UNCLOS	United Nations Convention on the Laws of the Sea

## **ABSTRACT**

This narrative addresses the issue of fisheries law, a specialist area combining aspects of international law, EU law, legislation from the UK and the devolved administrations and the common law. The research appraised and analysed marine fishing rights, the ownership of the UK marine fishery and the establishment of marine protected areas both under UK and aspects of EU law. The research adopted a doctrinal method triangulated via professional examples adopting aspects of action research.

The scientific research, on which this research drew, established that there is a serious decline in UK fisheries and an urgent need to bring in measures to safeguard the fishery.

The research found significant failings in the common law public right to fish, which designated the UK's entire marine area as a fishery without apparent reasonable limitations as to use. It found that the absence of a stated public owner of the fishery with clear public duties makes it

difficult to secure the public interest. It also highlighted the absence of clarity in the creation of derivative rights in the public fishery such as fishing quota, estimated in 1999 to be worth £1 billion. The research demonstrates the significant shortfall in the number of statutory marine protected areas created under the Marine Acts and raises concerns that these statutory measures could lead to paper parks with no active management measures. It shows the effectiveness of the application of the Habitats Directive to protect European marine sites and concludes that other European legislation could similarly be used to protect the marine environment from fisheries.

It also found a lack of a coherent narrative relating to the mechanics and powers and duties of UK fisheries managers and concluded that there should be more comprehensive guidance on UK fisheries law, as the last comprehensive fishery texts date from the nineteenth century.

The research recommends new Fisheries Acts to remedy some of the apparent defects in UK fisheries law.

# CHAPTER 1: INTRODUCTION AND BACKGROUND

## 1.1 INTRODUCTION

This narrative is prepared as part of the submission for a Doctor of Philosophy (DPhil) by publication. The key aim of a DPhil is to make a substantial contribution to academic research. This is recognised to some extent through the acceptance of journal articles which through peer review acknowledge the novelty and substance of the researcher's work, but also by the completion of this binding narrative, which sets out a coherent rationale underpinning those articles.

This work is separated into seven chapters and two appendices:

- Chapter 1 provides an introduction, title and background to the research project;
- Chapter 2 is an explanation of the research methodology;
- Chapter 3 introduces the background to fisheries legal literature;
- Chapter 4 explores the ten publications and their context in legal literature;
- Chapter 5 contains the results and analysis;
- Chapter 6 gives brief descriptions of the application of some of the research contained within the publications;
- Chapter 7 contains the conclusions and recommendations;
- Appendix 1 contains the ten publications; and
- Appendix 2 contains corroborative evidence relating to the application of the research.

## 1.2 TITLE

The title for this research is: “Fisheries law in action: An exploration of legal pathways to a better managed marine environment.”

## 1.3 BACKGROUND TO RESEARCH

The UK’s fisheries are in crisis because of a failure in fisheries management:

*Vessels are catching more fish than can be safely reproduced, thus exhausting individual fish stocks and threatening the marine ecosystem. Today too many stocks are overfished: 80% of Mediterranean stocks and 47% of Atlantic stocks. The fishing industry is experiencing smaller catches and facing an uncertain future. It is time to make fishing environmentally, economically, and socially sustainable.*

These words could be mistaken for the rhetoric of an environmental campaign group but are taken from the European Commission’s website (European Commission, 2013). It is rare for any government body to admit that it is presiding over a failure, but this atmosphere of honesty indicates a political climate where fisheries administrators are actively trying to resolve the underlying management failure.

This failure manifests in a number of ways. The Royal Commission on Environmental Pollution (2004) identified key weaknesses both in the preservation of biodiversity and in the maintenance of levels of nearly all commercial stocks. The Commission recommended 30% of the UK’s waters should be made no take marine reserves to combat the fishing pressure, and pointed out that only 0.006% of UK waters were total no take reserves, fully protected against fishing. Nine and a half percent of UK waters have nominal protection



from some fishing activities (JNCC, 2014a) but even within this figure active management measures remain to be implemented.

The European Commission's (2012) report into Atlantic fish stocks found that of the 47% of commercial species for which there was sufficient data only 22% of stocks were known to be fished within safe levels. On the human side, Cardwell (2012, p.368) noted that 78% of UK fishing vessels had access to a small fraction of the UK quota. There was a de facto unregulated privatisation of the public fishing rights taking place, to the detriment of small scale fishers and the public interest.

There have been attempts to resolve some of these issues through legislation. The UK Parliament enacted for England and Wales the Marine and Coastal Act 2009 (MACAA), the Scottish Parliament passed the Marine (Scotland) Act 2010 and the Northern Ireland Assembly passed the Marine Act (Northern Ireland) 2013. In 2008 the EU Marine Strategy Framework Directive<sup>1</sup> came into force and on 10<sup>th</sup> December 2013 radical reforms were completed to the EU Common Fisheries Policy (CFP). However, even with these developments, fisheries law in the UK remains a complex jungle of international law, EU law, UK legislation and common law. The fundamental principles of UK fishing laws have not been comprehensively examined since the nineteenth century (Moore and Moore, 1903). Notwithstanding the new legislation, until very recently, there was no institutional record setting out who held the UK's quota<sup>2</sup> and there was no consolidated understanding of the

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<sup>1</sup> Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy.

<sup>2</sup> Though this has since changed with the publication of some data on English quota. Available from: <https://www.fqaregister.service.gov.uk/> [Accessed 16<sup>th</sup> July 2014].

nature of those fishing rights and the legal instruments which authorised fishing in the UK. Fishing was almost a law unto itself, and a poorly understood one at that.

#### 1.4 RESEARCH AIMS AND OBJECTIVES

The aim of this research is to critically analyse the laws governing the UK fishery and draw up a list of measures needed to improve practical fisheries management towards achieving an effective balance between the needs of the commercial fishing sector, the environment and society.

Specific research objectives are to:

- (1) Develop a clear understanding of the nature and extent of marine and tidal fishing rights in the UK (investigated in publications 1,2,4 and 5);
- (2) Explore the ownership of these fishing rights (investigated in publications 6, 8 and 10);
- (3) Critique mechanisms which establish marine protected areas by limiting fishing rights (investigated in publications 3 and 7); and
- (4) Examine the complex interplay between UK fishery regulation and the EU Habitats Directive<sup>3</sup> (investigated in publication 9).

It is recognized that these objectives are not a comprehensive catalogue of the current issues in UK fisheries law, but it is submitted (and it is for the rest of this commentary to demonstrate) that these objectives contribute substantially and fundamentally to this field.

This narrative is based on the completed publications in Appendix 1.

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<sup>3</sup> Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

## CHAPTER 2: RESEARCH DESIGN

### 2.1 INTRODUCTION

A DPhil has a subtly different design to many pieces of research. For a normal PhD the core question dictates the form of research method and the methodology becomes the skeleton around which the whole project hangs. A DPhil takes a different form, as the research centres around the published papers and the role of the narrative is to bind the results from the publications together, as well as using the results from the publications to answer the research question. It would be possible both within this narrative and through those publications to use an array of research methods, but in this case a single approach has been adopted throughout this narrative and all the publications but it has been triangulated through practice as shall be explained.

### 2.2 EPISTEMOLOGICAL APPROACH

Legal scholarship borders almost forms two discrete disciplines. Westerman (2011) makes the point that:

*'the legal system performs this double function of both subject-matter and theoretical framework, it is understandable that methodological questions are usually not seen as questions in their own right. They are usually addressed by reflecting on the nature of the legal system itself.'*

But there is an inherent problem. Is it scholarly to investigate and postulate how the law itself should be interpreted, or is true scholarship to look at the legal framework in the abstract and reflect upon its nature using methodological tools from the social sciences? In reality this is not an either or question. If the development of the practical interpretations

of the law is left to those circumstances which arise before the courts or from legislation large areas of law would not receive the reflective attention they need. Similarly there is a need for scholarship to develop a grander narrative investigating the law in the context of the other social sciences and the two approaches although different are mutually compatible.

All the publications and this narrative are centred in the area of expository 'black letter' research – research into the law itself; they analyse the law for an applied academic and professional constituency. The process involves doctrinal research, the analysis of statutory and common law rules with the aim of identifying and clarifying ambiguities or lacuna (Chynoweth, 2009). Figure 2.1 gives a description of the differing forms of legal scholarship and where the expository approach sits within the broader constellation of research methodologies. This analysis also looks at the different constituencies for knowledge (professional and academic) and the differing groups of research methodologies associated with those constituencies. The expository approach aims to collate information from appropriate sources and to provide a clear analysis or even statement of the law and thereby assist the application of the law in the professional constituency, and create a basis on which other legal scholarship can take a more reflective approach.

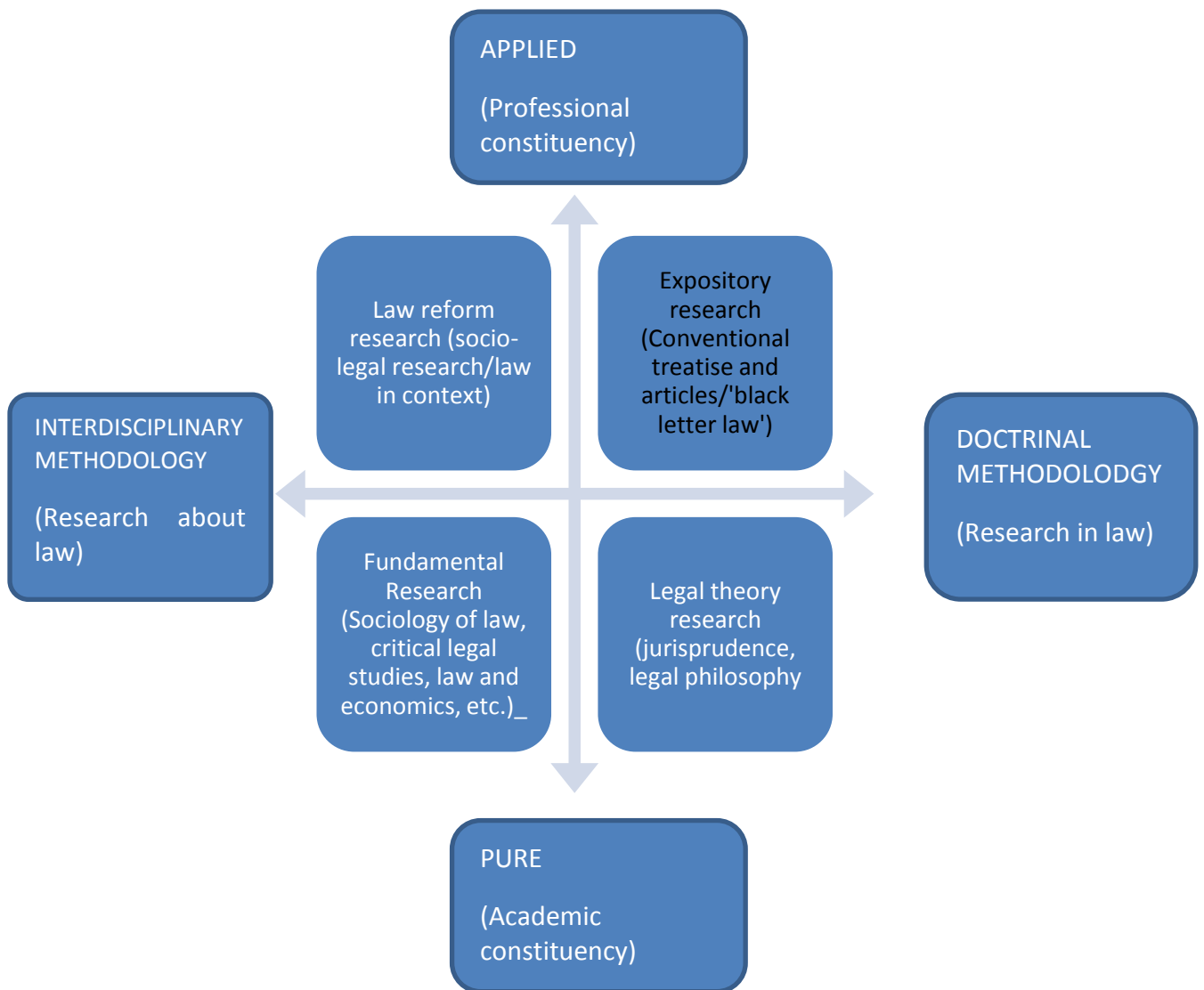


Figure 2.1: *Legal research styles* (Arthurs, 1983)

The researcher has commented on the general fisheries literature in chapter 3 and investigated the specific research objectives in chapter 4.

### 2.3 CHOICE OF METHODOLOGY

There are other approaches which reflect on the law in the context of society; these tend to combine the expository legal analysis with methodologies from other social sciences, such as sociology, human geography or economics. It is submitted that the weaknesses in doctrinal understanding in the areas covered by all the publications would be sufficient justification for purely doctrinal study, but a critical analysis of practical management

measures requires a grasp of the underlying management issues not just the law itself. Twinings and Miers (2010, p.69) make the point that one of the key values of legal research is its context and go so far as to advocate a contextual analysis, first followed by a reflective analysis of where the law sits in that context. This was not quite the approach adopted in the publications. To some extent the absence of comprehensible law has played a part in *creating* the context, so a black letter understanding of the law is of central importance. However, the context cannot be ignored and there is real value in adopting a post-positivist approach to triangulate the doctrinal investigation through other means. Reliance on secondary data from legal, scientific and social scientific academic studies on the decline of the fishing sector is an essential part of knowledge production (and such evidence is referred to both in the publications and in this narrative) but part of this research relied on the researcher's personal experiences, which helped to identify publicly available information and ground-truth the legal issues from real world examples. Although these experiences were not explicitly part of the publications, they do form an implicit part of the methodological context and it is worth explaining how these are reflected in the research and its design.

#### 2.4 PARTICIPATORY ACTION RESEARCH

None of the publications specifically relied on participatory action research but the approach was influential in the research design. Action research arose from a feeling among many scientists and social scientists that positivist thinking was not objective. As Swantz (2008, p.31) put it:

*The time of Marxism and its rigid applications were over and the concern was for the reconstruction of actual lives of real people [...] researchers were interested in walking shoulder to shoulder with ordinary people rather than one step ahead.*

The approach is grounded in experience. Participatory action research is explained diagrammatically in Figure 2. The researcher participates in an agency associated with their research, and through that participation acquires the knowledge to inform their research. It becomes action research, when it subsequently leads to an action. Not every piece of research, or practice undertaken, has all three elements.



*Figure 2.2: Relationship between participation action and research (Hughes, 2008, p.385)*

This researcher drew on key experiences through active participation with marine management agencies, which led to the identification of the key legal issues that are the subject of the ten publications.

The approach used is represented diagrammatically in Figure 2.3:

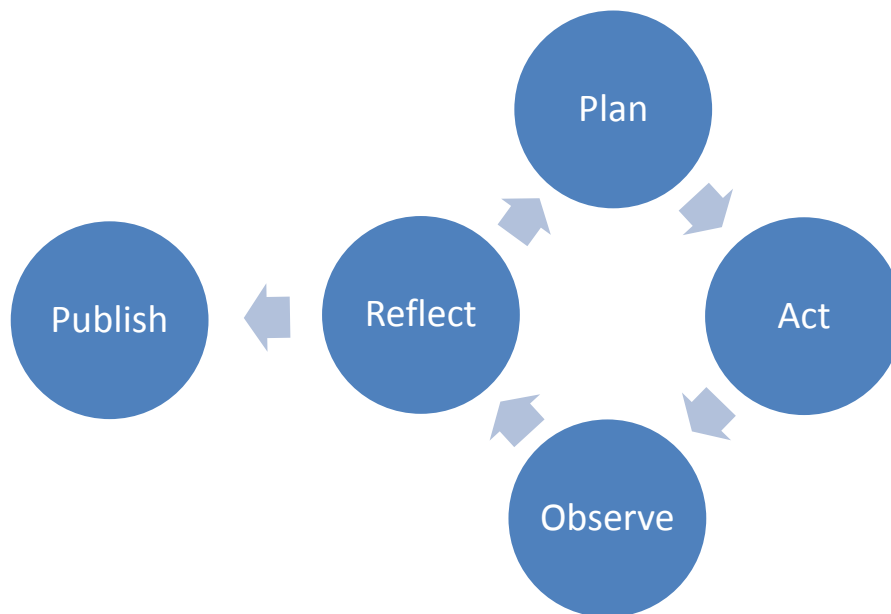


Figure 2.3: *The action research process* - adapted from Coats (2005, p.5)

Through engagement with a number of projects the researcher was able to gain the experience necessary to identify a need for doctrinal research.

## 2.5 KEY PARTICIPATORY PROJECTS

Table 2.1 sets out the key projects in which the researcher participated, which helped to triangulate the need for academic research. Involvement in these projects identified the lacunae in practice, which formed the basis for doctrinal research. In each case the objectives of this narrative and the relevant publications are identified with each project.



Table 2.1: *Informative actions relating to the research*

<b>Time Line</b>	<b>Organisation</b>	<b>Project Brief</b>	<b>Issue Identified</b>	<b>Objective(s)</b>	<b>Publication(s)</b>
<b>2004-2014</b>	Community of Arran Seabed Trust (COAST)	Establishing the UK's first community led no take marine reserve (COAST, 2014)	Comprehensive lack of understanding of the public right to fish and expertise in the practical implementation of marine protected areas	(1) and (3)	(1) to (7)
<b>2014-2012</b>	Gloucester Harbour Trustees (GHT)	Deciding sand dredging application under the Habitats Directive (GHT, 2014)	Lack of application of the Habitats Directive to commercial fisheries	(4)	(9)
<b>2010</b>	Pew Environment Group	Briefing note on the ownership of UK fishing quota (Appleby, 2010).	Weakness in the statutory basis for the distribution of the UK's fishing quota	(2)	(8) and (10)
<b>2008-2013</b>	Marine Conservation Society (MCS)	Peer reviewing letters before action sent by Client Earth and the MCS to government bodies alleging breach of the Habitats Directive (MMO, 2013)	Failure of the UK Government and the devolved administrations to comply with the requirements of the Habitats Directive in their management of commercial fisheries	(4)	(9)
<b>2010-2014</b>	Blue Marine Foundation	Establishment of MPAs in British Indian Ocean Territories, Lyme Bay and Belize	Complex Mechanics of establishing MPAs in UK controlled waters and practical issues relating to UK fishery management	(1) and (3)	(3) and (8)

In chapter 6 there is a short explanation of how the publications related to some of the projects and in Appendix 2 there is independent testimony to that relationship.

## 2.5 POTENTIAL WEAKNESSES IN THIS APPROACH

There are issues in having research associated with particular projects. By identifying a research need from a specific project, there is potential to skew the research results in favour of a specific outcome that favours that project. However, in the long term there is little use in constructing a legal argument which fails on peer review, or ultimately in the courts. Moreover the argument can just as easily be run the other way, Gaventa and Cornwall (2008, p.174) reflect on bias in traditional research methodologies in general and argue that the whole funding and structure of traditional research mechanisms and 'scientific rules' creates fundamental asymmetries in knowledge production, favouring the powerful; the reductionism implicit in much science systematically excludes certain factors and has implicit bias. It does not follow, though, that the replacement of a scientific process with a subjective approach necessarily rids bias from the system, so ultimately the research in this case adopts a pragmatic approach to potential bias. In reality, any evidence provided in the publications must have reasonable grounding in independent research or via the usual mechanisms of legal analysis; legal training should also enable the lawyer to review both sides of an argument and not be carried away by their own rhetoric but deliver impartial advice.

Participatory action research is a relatively novel form of research: a search of the Legal Journals Index returns a mere 39 results and these are predominantly in the field of crime (11) with only five in the field of environment, of which only two properly relate to participatory action research (Ravera, 2001; and Biberbach, 2007). This is surprising as the

approach is ideally suited for the application of the law to environmental issues. The approach adopted here though is not a formal action research approach but one which triangulates key issues from experience. In reality the approach may not be that novel, most doctrinal research has some experiential basis even if much of the time this is unacknowledged.

## 2.6 SUMMARY OF METHODOLOGY

The approach by the researcher in the publications and this narrative reflect a traditional doctrinal expository method. The need for doctrinal investigation, however, has been triangulated by participatory involvement in practical marine management projects.

## **CHAPTER 3: GENERAL BACKGROUND TO THE LAW OF FISHERIES**

### **3.1 INTRODUCTION**

The review of literature is separated into two chapters; this chapter relates the general literature on the UK fisheries law and chapter 4 focusses on literature (including the publications) relating to the specific research objectives. Having reviewed the general literature, this chapter then summarises the jurisdictional position for public bodies associated with fisheries management.

### **3.2 LEGAL COMMENTARIES ON FISHERIES LAW**

Secondary sources provide a narrative, which underpin a research area, and a springboard for further research. So any analysis of marine fisheries law must first start with an analysis of the available practical commentaries. The key source text used by UK fisheries managers is known as the Blue Book (MMO, 2014a). It is a compendium of current fisheries legislation but has some real shortcomings. Firstly, whilst fisheries has its own devoted body of legislation, fisheries management exists within a suite of administrative and public law so managers need to be aware that much of their authority and responsibility stems from legislation beyond the Blue Book (MMO,2014a). Secondly, it does not cover case law, and with some key elements emanating from the common law, this is very problematic, particularly given the absence of a binding commentary for fisheries managers.

There has been no comprehensive commentary on UK fisheries law since the Victorian works: Moore and Moore (1903), Stewart (1892), Paterson (1863) and Fear (1859). With no consolidated modern literature, these old sources retain their importance and remain the starting point for a good understanding of fisheries law in the round. Some literature has of course moved on from here, but it has developed in a fragmented fashion and with some

areas receiving better analysis and commentary than others. For instance Barnes (2009) provides a more modern view of fisheries law as part of his investigation into natural resource law in general but this operates at a higher level and so while useful does not really assist in the identification of the detailed black letter issues.

### 3.3 UNITED KINGDOM FISHERIES LEGISLATION

The Blue Book (MMO,2014a) sets some out the key legislative instruments for fisheries in the UK:

- The Fishery Limits Act 1976
- The Territorial Waters Order in Council 1964
- The Sea Fish (Conservation) Act 1967
- The Sea Fisheries Act 1968
- The Sea Fisheries Act 1981
- The Sea Fisheries (Shellfish) Act 1967
- Marine and Coastal Access Act 2009

The Fishery Limits Act 1976 and the Territorial Waters Order 1964 establish the extent and limits of UK sovereignty by demarking the UK's fishery. The Sea Fish (Conservation) Act 1967 and the Sea Fisheries Acts 1968 and 81 provide for the Minister to issue vessel licences and place conditions on those licences, and give the Minister the power to regulate fishing directly. The Sea Fisheries (Shellfish) Act 1967, which re-enacts earlier provisions to permit the privatisation of shellfisheries and create bodies to regulate a shellfishery and the Marine and Coastal Access 2009 (MACAA) (which only affects England and Wales), makes a number of detailed amendments: it introduces marine licenses (for activities other than fishing), and marine planning and reorganises the management of inshore fisheries in England and

Wales. The Marine (Scotland) Act 2010 has many similar provisions but there are some key differences in detail, for instance it has little effect on fisheries management.

The Blue Book (MMO,2014a) has no detailed commentary; it merely directs the reader to the appropriate page on the national archives website detailing the Acts. Lawyers would not rely on this as a proper source as the national archives site can be late updating legislative changes. It is, however, useful to have a list of relevant legislation before investigating the traditional online sources of Lexis Library (2014) or Westlaw UK (2014), which are more comprehensive and link to relevant case law, commentary and journal articles. The Department for Food, the Environment and Rural Affairs (Defra, 2014), the MMO (2014b), Welsh Government (2014a) and Scottish Government (2014a) websites are also useful in understanding current fisheries policy.

There is potential for some confusion over the role of the EU and domestic regulators, and there are many articles in the media complaining about regulation from the EU (see for instance Collins, 2014). It is important to separate out the responsibilities of the different agencies. From the Blue Book (MMO,2014a) and MMO (2014b) the following useful ground rules are set out. The UK Ministers have the power to issue Ministerial Orders to regulate fishing under the Sea Fish (Conservation) Act for UK fishing vessels. This regulation can be by a vessel licence, a condition on that licence or direct Ministerial Order. The inshore waters of England to the 6 nautical mile limit are managed by Inshore Fisheries and Conservation Authorities (IFCAs) established by the MACAA. The IFCAs have powers to make byelaws

themselves for their areas. Wales,<sup>4</sup> Scotland<sup>5</sup> and Northern Ireland<sup>6</sup> have devolved fully authority for fisheries to the edge of British fishery limits, although the UK Minister negotiates on behalf of all the administrations in the EU. The Blue Book (MMO,2014a) also sets out that other EU nations can access UK waters through the CFP with the provision of some the detailed 'technical measures' in place in UK inshore waters created by EU legislation.

There are however a number of omissions. There is no reference to some important fisheries and environmental legislation:

- The Sea Fisheries (Wildlife Conservation) Act 1992;
- The Natural Environment and Rural Communities Act 2006 (in particular s40 which gives greater environmental duties to public bodies);
- The EC Habitats Directive (although this is addressed separately on the MMO website);
- The EC Water Framework Directive (which applies from the coastline to 1 nautical mile in England, Wales and Northern Ireland and 3 nautical miles in Scotland); and
- The EC Marine Strategy Framework Directive.<sup>7</sup>

With the exception of the Sea Fisheries (Wildlife Conservation) Act 1992, the omitted legislation relates to environmental management. However, fisheries are intrinsically connected with their environment and these pieces of legislation place important

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<sup>4</sup> Government of Wales Act 1998 and Marine and The Welsh Zone (Boundaries and Transfer of Functions) Order 2010 (SI 2010/760).

<sup>5</sup> Scotland Act 1998 and The Transfer of Functions (Agriculture and Fisheries) Order 2000 (SI 200/1812).

<sup>6</sup> Northern Ireland Act 1998 and The Transfer of Functions (Sea Fisheries) Order 2012 (SI 2012/2747).

<sup>7</sup> Directive 2008/56/EC on establishing a framework for community action in the field of marine environmental policy.

obligations on fisheries managers, so while understandable, in fact, these pieces of legislation should have been included in the Blue Book (MMO,2014a).

There are a number of other key omissions. There is no mention of who owns the UK's fishery: an important principle, as the method of ownership underpins the management obligations of any state regulator / owner. There is also no mention of the United Nations Convention on the Laws of the Sea which places the UK fishery in its international context and details certain fundamental rights and obligations of fishery management for coastal states. Finally, there is no link to the fisheries management of the UK Overseas Territories and Crown Dependencies. These are dealt with by the Foreign and Commonwealth Office (Foreign and Commonwealth Office, 2012).

So while useful, the Blue Book (MMO,2014a) is only a starting point for an investigation of UK fishery regulation, and even then it contains some serious weaknesses.

### 3.4 INTERNATIONAL FISHERIES LAW

The thrust of much of the literature on international fisheries regulation relates to the complex negotiation between states relating to the definition of states' boundaries with respect to fishing rights (Burke, 2013), agreements regarding the management of stocks which straddle those boundaries (Techera and Klein, 2011), fisheries on the high seas (Serdy, 2011) and illegal unreported and unregulated fishing (Erikstein and Swan, 2014). There is generally beyond the scope of this study. It is important, however, to have a firm grasp of the principles of the coastal state's fishing rights. These are covered in the general literature on the international law of the sea such as Churchill and Lowe (1999) and Rothwell and Stephens (2010).



The United Nations Convention on the Laws of the Sea (UNCLOS) provides that coastal states shall have sovereignty within their territorial waters to the 12 nautical mile limit,<sup>8</sup> such sovereignty would include fishing rights. Outside the territorial waters but within its exclusive economic zone (to the 200 nautical mile limit or mid line if that abuts another coastal state) a coastal state has sovereign rights for the purpose of exploring, exploiting, conserving, and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil.<sup>9</sup> This exploitation is tempered with a duty to maintain and restore stocks to maximum sustainable yield.<sup>10</sup> The state has further rights for sedentary species to the edge of the continental shelf.<sup>11</sup> There are also duties within UNCLOS to preserve the marine environment.<sup>12</sup>

In the UK's case, through its membership of the EU, much of the responsibility for fisheries management has been conferred on the EU, although it must be recognised that ultimately it is the coastal state to which UNCLOS refers, not the EU, so some vestigial responsibility remains with the UK.

### 3.5 EU FISHERIES LAW

The European dimension of fisheries regulation has the potential to be a real minefield. As one of the few areas of exclusive competence, European regulations for much of fisheries policy is known as 'directly effective' in that such regulations apply to member states without the need for further enactment at the member state level. There are the usual sources of EU environmental legislation on the Eur-lex website (European Union, 2014) but

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<sup>8</sup> UNCLOS, Article 3.

<sup>9</sup> UNCLOS, article 51.

<sup>10</sup> UNCLOS, article 61.

<sup>11</sup> UNCLOS, article 77.

<sup>12</sup> UNCLOS, article 192.

exclusive competence has produced a huge volume of unique rules, for a relatively small industry. Without bespoke guidance the corpus of European fisheries law would be almost impenetrable. Fortunately, Churchill and Owen (2010) have written a thorough comprehensive commentary of the EU CFP, so there is definitive guidance for the researcher.

The EU's exclusive competence is for '*the conservation of marine biological resources under the CFP.*' Churchill and Owen (2010, p.48) argue that the EU does not have exclusive competence over all marine life, but '*just those products which fall within the material scope of the CFP.*' If this argument is correct, for issues such as the preservation of the marine environment, the EU may still have the power to legislate, but this power would derive from elsewhere in the European treaties and would be from shared competence. This is a key point, exclusive competence centralises control within the EU institutions, while for shared competence the EU sets the benchmark, but member states are permitted to draw up their own enacting legislation. If they desire it, that legislation can be more adventurous than the minimum standards set out by the EU, as long as it does not breach EU rules elsewhere.

Some control has been delegated back to member states (Churchill and Owen 2010, p. 190) as restated in the new Basic Regulation<sup>13</sup> of the CFP. Key areas of this delegation are:

- The ability to create regulations for a member state's own vessels;<sup>14</sup>
- The ability to create regulation within its territorial waters for all vessels for either fisheries or general marine conservation;<sup>15</sup> and

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<sup>13</sup> Regulation 1380/2013.

<sup>14</sup> Regulation 1380/2013, article 19.

<sup>15</sup> Regulation 1380/2013, article 13.

- The ability to draft emergency regulation anywhere within its jurisdiction for fisheries or general marine conservation.<sup>16</sup>

In each case there are caveats and differing levels of EU involvement, but the member state is not powerless to undertake regulatory activities of its own motion.

One of the most significant features of the CFP is the inclusion of the principle of shared access to all member states' waters to fishers from other member states (Churchill and Owen 2010, p. 196). Although this is the basic principle it is restricted in two ways: the relative size of member states' fleets is maintained through a policy of 'relative stability' and member states are permitted some exclusive control of their fisheries inside territorial waters.

Relative stability (Churchill and Owen, 2010, p. 166) applies where an effort restriction mechanism, such as quota, has been applied to a particular fish stock. This mechanism ensures that quota is allocated to each member state in proportion to the historic operations of its fishers. The member state then has discretion as to how that quota is transmitted to its fishers. Churchill and Owen (2010) cite European case law supporting this position but there is real clarity contained within the Treaty of Functioning of the EU itself:

*The Treaties shall in no way prejudice the rules in Member States governing the system of property.*<sup>17</sup>

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<sup>16</sup> Regulation 1380/2013, article 5.

<sup>17</sup> Consolidated Treaty of Function of the European Union, article 345.

Power is not conferred on the EU to dictate member state's property rights, and member states own their fisheries as well as having the right to regulate them. In theory, therefore, the ownership of a member state's fishery is outside the competence of the EU.

For the UK, the *de facto* position is that it has almost exclusive control of its fishery to the 6 nautical mile limit. Churchill and Owen (2010, p.198) make the point that EU Regulation<sup>18</sup> permits access to '*fishing vessels that traditionally fish in those waters from ports on the adjacent coast*' rather than making the whole inshore area a national common, but in practice all UK vessels have access to all UK inshore waters. This is further restricted by a provision that allows access to other member states where there is an existing relationship. For the UK this is set out by the London Convention 1964 which permits a number of member states access to UK waters between the 6 and 12 mile limits. Regulation of these vessels has to take place with EU sanction.<sup>19</sup>

The European Commission itself (2013) has admitted to major failures in the CFP and there is a great deal of literature regarding those failures at a European level (Howarth, 2004; Dadge, 2012; Wakefield, 2013 and many others). The new Basic Regulation may go some way to resolving those European issues, but what is clear from the structure of the CFP set out by Churchill and Owen (2010) is that a great deal of the responsibility for EU fishery still sits with the member state. This narrative focuses on the UK's responsibility, which is a comparatively poorly researched area.

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<sup>18</sup> Regulation 1380/2013, article 5(2).

<sup>19</sup> Regulation 1380/2013, annex 1.

### 3.6 THE UK OVERSEAS TERRITORIES AND CROWN DEPENDENCIES

Through its legacy of empire, the UK still controls a vast area of the world's oceans via its overseas territories (UKOTs) and crown dependencies of the Channel Islands and the Isle of Mann. The area in question is set out in Figure 3.1.

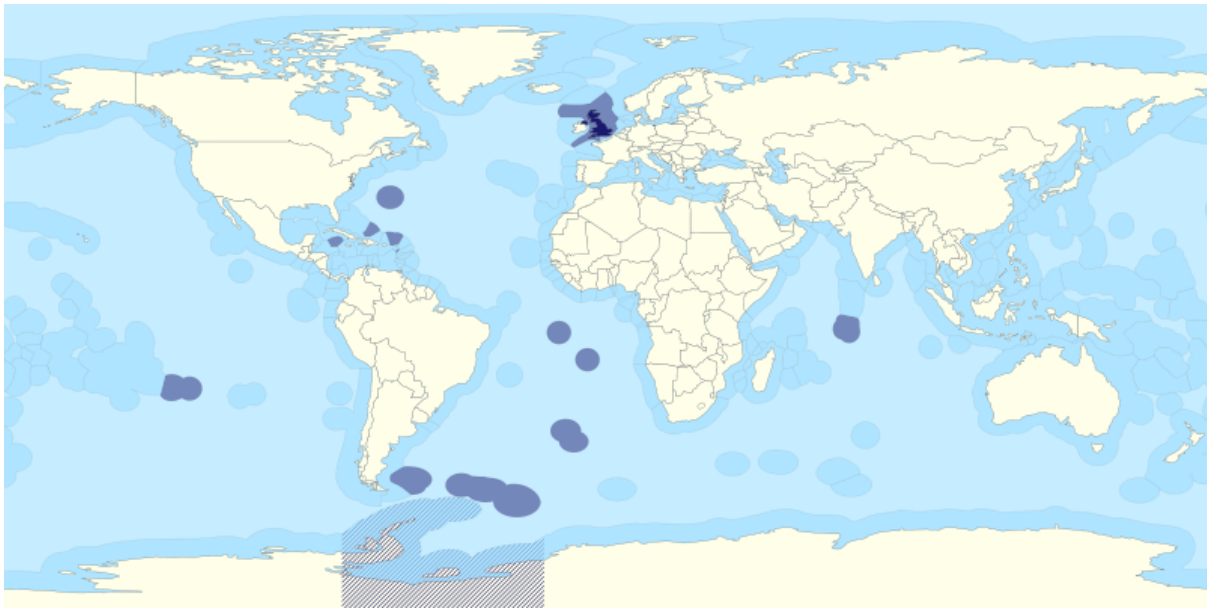


Figure 3.1: Map showing the exclusive economic zones controlled by the UK (B1mbo [CC licence](#))

This makes the UK controlled EEZ the fifth largest in the world at 6,805,585 km<sup>2</sup> with the largest (the US EEZ) being 11,351,000 km<sup>2</sup>. Each UKOT has a slightly different constitutional position. Table 3.1 gives an indication of the area associated with each one.

Although the UKOTs are not the specific study of this research, the sheer size of the sea area that the UK controls through the UKOTs makes them worth mentioning for completeness.

The key text on UKOT law is Hendry and Dickson (2011, p.14) which sets out the UKOTs distinct constitutional position:

*Each British Overseas Territory is a separate constitutional unit, and accordingly is a distinct legal jurisdiction. None is constitutionally a part of the United Kingdom. Each territory has its own constitution and is administered separately from the others.*

The position was reinforced in *Chagos Islanders v United Kingdom* (Admissibility) (2013) 56 EHRR SE15 (ECHR) where the court held the British Indian Ocean Territories were not part of the metropolitan UK for the purposes of the European Convention on Human Rights (Monaghan, 2013). Only Gibraltar and the sovereign bases of Akrotiri and Dhekelia in Cyprus are part of the EU. As a result, the EU CFP does not apply generally to the UKOTs and effectively each UKOT has its own distinct fisheries management regime.

Table 3.1: *Area of exclusive economic zones controlled by the UK* (seasaroundus.org)

Territory	km <sup>2</sup>	sq mi
United Kingdom	773,676	298,718
Anguilla	92,178	35,590
Ascension Island	441,658	170,525
Bermuda	450,370	173,890
British Indian Ocean Territory	638,568	246,552
British Virgin Islands	80,117	30,933
Cayman Islands	119,137	45,999
Channel Islands	11,658	4,501
Falkland Islands	550,872	212,693
Gibraltar	426	164
Montserrat	7,582	2,927
Pitcairn Island	836,108	322,823

Saint Helena	444,916	171,783
South Georgia and the South Sandwich Islands	1,449,532	559,667
Tristan da Cunha archipelago	754,720	291,400
Turks and Caicos Islands	154,068	59,486
<b>Total</b>	<b>6,805,586</b>	<b>2,627,651</b>

### 3.7 SUMMARY

There is a lack of a comprehensive commentary on UK fisheries law; the last detailed works date from the late Victorian period. The Blue Book (MMO,2014a) is not a comprehensive guide and should only be used as a starting point for an investigation of fisheries law. International fisheries regulation is well covered through an extensive literature but this tends to relate to the relationship between coastal states and illegal fishing rather than the effect of international law on internal fisheries management issues. It is significant that within their EEZ coastal states sovereign fishing rights are tempered with an obligation to maintain and restore fish stocks to maximum sustainable yield. European fisheries law now has thorough coverage through the work of Churchill and Owen (2010), though this predates the comprehensive reforms to the CFP in December 2013.

Part of the complexity of fisheries management stems from the migratory nature of most fish species. It is, therefore, important to recognise the jurisdictional boundaries of the various institutions involved in fisheries, particularly in the light of devolution.

The various responsibilities for UK fisheries management are summarised in Table 3.2.

Table 3.2: *Public bodies and their ambit over marine fisheries*

<b>Area</b>	<b>Responsibility</b>	<b>Associated public body</b>	<b>Governing principle</b>
<b>0-6 nautical miles</b>	Fisheries management	UK and devolved administrations	Local management of inshore territorial waters under CFP
<b>6-12 nautical miles</b>	Fisheries management	UK and devolved administration with involvement of other EU nations with historic rights by EU	Historic access rights under London Convention and CFP
<b>12 nautical miles to EEZ/ continental shelf</b>	Fisheries management	EU, UK and administrations	CFP (including principles of shared access and relative stability)
<b>0-edge EEZ / continental shelf</b>	Ownership of fishery	of UK	Article 345 Treaty of Function of EU
<b>0-edge of EEZ / continental shelf</b>	Management of marine environment	of EU, UK and administrations	Shared competence
<b>All marine waters</b>	UK registered commercial fishing vessels	UK and devolved administrations	Sea Fish (Conservation) Act 1967
<b>All marine waters</b>	All EU fishing vessels	Directorate General for Fisheries and Maritime Affairs	EU Common Fisheries Policy
<b>All marine waters</b>	All marine activities	United Nations Organisation and various international bodies	UNCLOS and associated instruments
<b>Areas controlled by UK Overseas Territories</b>	All activities	Foreign Commonwealth Office and individual UKOT administrations	UKOT constitutional documents



## CHAPTER 4: CONTEXTUALISING RESEARCH OBJECTIVES IN THE LITERATURE

### 4.1 INTRODUCTION

The four key areas covered in the objectives are:

- (1) The nature and extent of UK fishing rights;
- (2) Ownership of those fishing rights;
- (3) The establishment of marine protected areas; and
- (4) The interplay between fishery regulation and the EU Habitats Directive.

A mixture of practitioner texts, Parliamentary papers and academic literature relating to each of these areas is explored in the subsequent sections to help form a rounded view of the objectives. The section focusses on legal literature, but in some cases explores related scientific and social scientific academic literature to help reinforce a point or provide context and interdisciplinary triangulation.

### 4.2 THE PUBLIC RIGHT TO FISH

The public right to fish is the primary authority that permits recreational and commercial fishing in the waters of the UK and most common law countries. It is, therefore, surprising that, except for the Victorian commentaries, before publication 1 it was the subject of very little attention. Many sources confirm the fundamental nature of the right, Halsbury Laws of England (2014, para 381) states:

*All citizens of the Crown are entitled as a matter of public right to fish in tidal waters including the high seas, estuaries and tidal watercourses as well as from the foreshore. This right derives from the presumption that the bed of tidal waters rests in the Crown. The public right to fish in these waters derives from Magna Carta. The*

*right extends only to the mean high water mark of ordinary tides and so far up rivers as the tide in the ordinary course of things flows and reflows.*

This statement is littered with fascinating references. There are few unexplored areas of law that have such a coruscation of legal principles: the ancient prerogative powers of the monarch, the Magna Carta and the creation of significant if poorly defined proprietary rights. Stair Memorial Encyclopaedia (2014, para 521) for the law of Scotland, goes into more detail on the limitations on the Crown but similarly confirms the existence of the public right to fish in Scottish waters emanating from the Fisheries (Scotland) Act of 1756 and the Fisheries Act of 1705 (pre-union of the Parliaments). Oblique references are made to the existence of the right in numerous sources, such as Bonyhady (1987), Howarth and Jackson (2011), Marston (1981) and the Scottish Law Commission's (2003) report into the laws of the foreshore and the seabed.

In 2005 Defra stated their views on the public right to fish in correspondence reported by Symes and Boyes (2005, p.55) while reviewing the operation of the EU Habitats Directive:

*There is a common law public right to fish in England and Wales. Activities undertaken by this right are not authorised by any competent authority [...] our view is that these common rights activities are not plans or projects under Article 6 (3) [of the Habitats Directive] unless they require further authorisation from a competent authority.*

This is a very important admission because it contains two key principles, firstly it underlines the primary importance of the public right to fish but secondly it demonstrates that it is the

base on which further regulations sits; the Habitats Directive point itself is one which will be referred to again later.

Publication 1 investigated the public right to fish and confirmed its extensive application around common law countries to the 200 nautical mile limit. It makes the point that:

*In practice the public right to fish in law means that entirety of territorial waters and the exclusive fishing zone have a primary use as a fishery using the most intensive methods possible, unless those rights have been specifically excluded.*

Commercial fishing is, therefore, unique; a potentially intense commercial resource extraction can be undertaken without consent until there is some form of regulatory restriction. For almost every such other industry the reverse is true, the activity can *only* be undertaken once it is licensed. A blanket right of such wide scope is exceptionally rare and brings with unnecessary complexity.

Publications 1 and 2 explore how in practice the public right to fish must have some effective limitation, either through reasonableness or through encountering other proprietary rights (such as ownership of the seabed). Publication 4 by Peter Scott countered some of the arguments made in the first two publications, and argues for a broad view of the right to fish, permitting the right to authorise substantial ancillary activities. Publication 5 is a rebuttal to Scott's approach highlighting the practicality of a narrower view and that the paucity of case law gave the courts discretion in this area to draw from practice elsewhere in property law which would endorse more restrictive rights. Barnes (2011) to some extent sides with Scott:

*For commercial fishing the law has long since been overtaken by regulation. Legislation does not necessarily remove the right, but determines how and when it can be exercised.*

By the use of the word 'overtaken' there is an indication by Barnes (2011) that somehow regulation sits in place of limitations on the right via the common law. The public right to fish is a proprietary right, in the same way that an easement is a proprietary right. Failing to deal with excessive use of the property right by limiting the right itself is a very different remedy to the creation of regulatory restrictions. Restrictions turn on the detail of the Acts of Parliament, which enable regulatory powers but limitations through the common law would decide the extent of the right itself. This is not a controversial approach and the common law is well used to creating limitations on proprietary rights through the courts. For instance, the doctrine of *excessive user* set out in the case of *McAdams Homes Ltd v Robinson* [2004] EWCA Civ 214, is well established for easements even though it would be possible to restrict use of rights granted by easements through regulatory means. The availability of a regulatory mechanism does not negate the need for the common law to restrict the "monster" it has created. There is also a practical point that limiting the public right to fish to reasonable and sustainable activities *prima facie* does not give fishers the expectation that any activity at all can be carried out in pursuit of fish. An open ended right engenders a righteous sense of grievance when regulations (rather than extant law) restrict that activity. In short, it is better for regulation to overlay the public right to fish, rather than overtake it.

A number of publications erroneously link the Magna Carta to the creation of the public right to fish (for instance Huffman (1988) and Clarke (2000) but there are many others

including Halsburys Laws of England (2014, para 381)). Publication 1 (restated by Barnes (2011)) cites the Moore and Moore's (1903) findings that by the time of the Magna Carta most of the accessible tidal fisheries had been 'severed' or granted to private individuals by the Crown, and that the Magna Carta itself was unrelated to the imposition of the public right to fish. The right was incorporated into English law by Henry Bracton from the Roman tradition in the thirteenth century. In a strange twist the case of *Malcolmson v O'Dea* [1862] 10 HLC 593 held that limitations on prerogative contained in the Magna Carta restricted the Crown from granting new private tidal fisheries, though it is difficult to understand the reasoning for this decision as it is clearly not in the Magna Carta itself. The effects of this case on privatisation of the public fishery shall be explored later, but it is worth pointing out at this stage that the incorrect association of the public right to fish with the Magna Carta means that political actions to curtail the right can meet with deep seated constitutional disapproval.

#### 4.3 OWNERSHIP OF UNITED KINGDOM FISHERY

Moore and Moore (1903, p.97) base their analysis of the UK's fishing law on Hale's words:

*In this sea the King of England hath a double right, viz a right of jurisdiction which he ordinary exerciseth by his admiral, and a right of propriety or ownership. (Hale, 1888, p. 376)*

The method of ownership by the Crown of the UK's fishery is important, as the development of rights based management for fisheries is a burgeoning discipline. Fisheries economists have published a wide range of work (such as Arnason, 1999) on the potential benefits of the propertisation of fisheries, originally through individually transferable fishing quota and more latterly through 'catch shares' both of which amounted to the same thing: the

creation of tradable private rights in a fishery, leads to fishers having a secure right in the fishery and, thus, environmental improvement. This approach has gained real credibility and culminated in an article by Costello *et al.* (2008) and proposals, which were later withdrawn, for transferable fishing concessions in early drafts for the reformed CFP.

It is outside the scope of this work to comment on the effectiveness of the fisheries economists' proposals or the vast volume of literature which circulates around that debate. But for the state to grant fishing rights to third parties it must first understand its own rights; and ownership of the UK's fishery is far from clear.

Lord Hale (1888, p.376) explained the nature of Crown ownership as follows:

*The right of fishing in this sea and the creeks and arms thereof is originally lodged in the Crown, as right of depasturing is originally lodged in the owner of the waste whereof he is lord [...] But though the king is the owner of the great waste, and as a consequent of his propriety hath the primary right of fishing in the sea and the creeks and arms thereof; yet the common people of England have regularly a liberty of fishing in the sea or creeks or arms thereof, as a publick common of piscary, and may not without injury to their right be restrained of it, unless in such places or creeks or navigable rivers, where either the King or some particular subject hath gained a propriety exclusive of that common liberty....*

Paterson (1863), Moore and Moore (1903), Marston (1981), Bonyhady (1987) and others discuss this idea, but with the exception of Bonyhady (1987, p.251) - who reports that the Animals Act 1971 has the effect of abolishing Crown ownership in England and Wales,

though this argument is not advanced very far - none of the sources take the matter further than Lord Hale's pronouncement. This has a peculiar result:

- There is an acknowledgment of Crown ownership of the UK's fishery;
- The public may exercise that right; and
- It is unknown in which Crown body or government department those fishing rights vest.

Furthermore, because of the unsubstantiated but binding House of Lords decision in *Malcolmsom v O'Dea*, the Crown is not permitted of its own motion to privatise UK fishing rights without statutory authority, and it only has such authority in respect of shellfisheries under the Shellfish Act 1967. As the UK has developed a market in transferable fishing quota in many fishing stocks this raises the ugly spectre that the UK was potentially acting illegally when it permitted the development of this market (*The Economist*, 1998). This was highlighted to the Houses of Parliament Agriculture Select Committee (1998, para 88):

*Mr. MacSween of the [Scottish Fishermen's Organisation] described this as "a very odd situation", adding "I keep saying to the lawyers who draw [the quota sale agreements] up 'How can you draw up a legal agreement to sell something that does not belong to you? How do you advise clients to buy something from somebody who has no proper legal title?' There is a genuine concern here.*

The same committee (1998, para 70) went on to put an estimate of £1 billion on the combined value of UK quota and vessel licences.

Publication 8 investigates the ownership of the UK fishery. It firstly develops some of the arguments regarding the current state of Crown ownership of the fishery. Because of the

central weakness of Crown ownership, quota has developed through the sale of fishing vessel licences and trading between fishers and some fishers' cooperatives (known as Fish Producer Organisations). However, this is not based on the disposal of quota per se, but the condition on the vessel licence which creates that quota, an act which leads to considerable legal complexity. Publication 8 also argues that this is an untenable proposition, and that the creation of quasi-property rights in quota is leading to an unregulated privatisation, which stretches the limits of permissible actions under existing fisheries regulation.

Publication 8 coincided with a judicial review, *UK Association of Fish Producer Organisations v Secretary of State for Environment, Food and Rural Affairs* [2013] EWHC 1959 (Admin). The UK Fisheries Minister had sought to reallocate unused fishing quota from the offshore fleet to the smaller inshore sector. The UK Association of Fish Producer Organisations argued inter alia that such an allocation was illegal as it amounted to a breach of their members' property rights in that quota. Publication 10 (with Dr Margherita Pieraccini of Bristol University) analysed the case, and found an inherent contradiction in Mr. Justice Cranston's findings, on the one hand there was an assertion that the fish remained a public resource, but on the other that quota was a private resource, which had no value and, therefore, did not require compensation under the Article 1 Protocol 1 of the European Convention of Human Rights. The exact nature of Crown ownership of the UK fishery and the nature of UK fishing quota therefore remains unresolved.

It is clear from Article 61 of UNCLOS, through its sovereign rights in fishing, the UK can make regulations and declare its ownership of the fishing rights within its EEZ and to the edge of the continental shelf for sedentary species. The failure to make a formal declaration does not of itself mean that the Crown does not own the fishing rights. UK law does not



encourage the concept of ownerless but ownable rights. There is considerable precedent for the Crown simply acquiring rights through prerogative both because of case law, such as *Shetland Salmon Fishing Association & The Port & Harbour of Lerwick v Crown Estates Commissioners* [1991] SLT 166, which established Crown ownership of the seabed (Marston, 1991), but also through the long established practice of bona vacantia, where ownerless property passes to the Crown. Although Barnes (2011) makes a clear argument for the fishery being ownerless, Appleby *et al.* (2013) reflect that his argument goes against the grain of UK law, and that the fishery is a Crown (or at least) publicly owned right. Publication 10 highlights public ownership is tacitly (but weakly) endorsed by Justice Cranstone in *R ex parte United Kingdom Association of Fish Producer Organisations v Secretary of State for the Environment, Food and Rural Affairs* (at 100):

*There is some force in the Interveners' point that statements about fishing quota and the fixed quota allocation system have always to be understood against the background that fish are a public resource.*

However, although the means of public ownership of the UK fishery remains frustratingly unclear there is at least partial acceptance that the fishery belongs to the public. A current consultation by the Scottish Government (Marine Scotland, 2014, p.26) states:

*We consider that fish quotas are a public asset belonging to no one individual or set of individuals.*

However, as yet, both the literature and the law give no definite conclusion.

There is one further point which needs consideration in this area: If there is a public owner, on what basis is that public ownership expressed? Again there are two differing

interpretations in the literature. Publication 8 makes the case for a public trust with the Crown having fiduciary responsibility to actively manage the fishery and not diminish the value of the trust. Barnes (2011) argues for a *parens patriae* type of ownership, where there is no duty to manage that asset but that it should be protected from harm by others. Without explicit legislation or court decisions on the point it is impossible to be sure which argument is correct but it is worth noting that over time what was formerly regarded as a loose proprietary connection may change. Much of the marine estate is held by the Crown Estate Commissioners and this is what the Scottish Law Commission (2003, p.11) has to say about the origin of that estate:

*Late into the nineteenth century, it could still be argued that the Crown's rights over the seabed and foreshore were part of the regalia majora, i.e. quasi-proprietary rights which could not be alienated by the Crown. Alternatively, it was said that the Crown held both the seabed and foreshore simply as trustee or fiduciary for the benefit of the public. The predominant modern theory is that the Crown has a proprietary right in the solum of the seabed and foreshore. While this derives from the prerogative, it amounts to full ownership of the property. It is a patrimonial right: It is not a right held by the Crown in trust for the public. In other words, the ownership of the seabed and foreshore is not part of the regalia majora: It is held by the Crown for its own patrimonial benefit. However, while the Crown has full ownership, it is recognised that its proprietary rights cannot be exercised in a way which would prejudice the interests of the public in the sea (including the seabed) and the foreshore.*

The literature demonstrates that there is no single view on the nature of the ownership of the UK's fishery and that the public ownership of the marine space has in the past solidified over time. It is possible, therefore, for a similar process to happen to the public's right to fish.

#### 4.4 MARINE PROTECTED AREAS UNDER THE MARINE ACTS

A Marine protected area (MPAs) is defined by the International Union for the Conservation of Nature (IUCN) (1992) as:

*Any area of intertidal or subtidal terrain, together with overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment.*

There is a huge body of work associated with the establishment and creation of MPAs (Polunin, 2002; Jones, 2014; Ballantine, in press and many others). One of the key resources in the UK is a report by the Royal Commission on Environmental Pollution (2004). The Royal Commission's unequivocal finding is that there is a need to develop marine protected areas for fisheries in UK waters. It recommends that up to 30% of UK waters should be closed to all types of fishing (2004, p.198).

Scientific research in this area has led to a significant amount of international and EU law. Pieracinni (2013) sets out a good overview of the position. MPAs are required by, the Convention on Biological Diversity, the World Summit on Sustainable Development requires MPAs by 2012,<sup>20</sup> the Oslo-Paris Convention (OSPAR) calls for MPAs by 2012,<sup>21</sup> and the

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<sup>20</sup> World Summit on Sustainable Development, 2002, agenda 21, chapter 17, paragraph 31(c).

Marine Strategy Framework Directive signposts the use of MPAs to achieve good environmental status by 2020.<sup>22</sup> The EU Habitats and Birds<sup>23</sup> Directives have created a number of MPAs through the designation of European Marine Sites.

There are additional drivers too. There is no direct requirement in UNCLOS, but there are requirements for the preservation of the marine environment. Appleby *et al.* (2013) argue UNCLOS also requires the implementation of MPAs through its insistence on maximum sustainable yield in Article 61 for fisheries in coastal states' EEZs. Also the Water Framework Directive in requiring good ecological status in EU waters out to one nautical mile could have the effect of creating an MPA in inshore waters.

Much of the MPA literature is devoted to the stakeholder engagement side of the process (Jones *et al.* 2001), the economic impacts of MPAs (Klein *et al.*, 2008) the scientific benefits or otherwise of MPAs (Gubbay, 2006) and marine planning (Douvere, 2008). There is a library of research in this area contained in the UK Marine Protected Area Centre hosted by the Marine Biological Association. This includes a great deal of critique on the governance of MPAs by writers such as Dr Peter Jones of University College London and many others (see for instance Jones (2014)), but this work tends to record a social scientific rather than strictly legal analysis of the implementation mechanisms. Traditionally, there has been minimal work on the legal mechanisms for the implementation of MPA per se.

There was a considerable amount of consultation and analysis leading up to the MACAA and the Marine (Scotland) Act 2010. These were enacted partly to facilitate the creation of

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<sup>21</sup> Oslo-Paris Convention for the Protection of the Marine Environment for the North-East Atlantic.

<sup>22</sup> Directive 2008/56/EC, recital 21.

<sup>23</sup> Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds.

MPAs and partly to better regulate the marine area in general. MPAs by their nature involve the removal of fishing rights. The consent for commercial fishing in UK waters was through the licensing of vessels under the Sea Fish (Conservation) Act 1967 and under the public right to fish. These extant rights would need to be abrogated in some way, but, apart from reference to the Habitats Directive, there was little literature leading up to the Acts that explored how that would actually happen.

Publication 3 is an overview of the mechanics of the UK Marine Bill. It raised concerns over the mechanics of implementation relating to fisheries, particularly highlighting that separate legislation would be required beyond the Bill to regulate fisheries and questioning the failure to regulate the public right to fish. These questions go to the heart of the need for a far reaching Marine Act at all. The Bill was launched with the explicit desire to regulate the unregulated (Defra, 2007, p.89) but the public right to fish was the one of the worst regulated human activities and an activity identified in most need of regulation by the Royal Commission on Environmental Pollution (2004), but beyond enabling the creation of marine conservation zones (MCZs) and establishing new regulators in England, the fisheries legislation proposed few radical reforms.

Publication 7 (with Dr Peter Jones of University College London) evaluated the Marine and Coastal Access Act 2009 itself commenting that it still failed to adequately regulate fisheries and raised concerns that the Act required a cumbersome degree of scientific advice before MPAs could be created. Despite the obstacles some designation of MPAs has taken place. Pieraccini (2013) explains in some detail the measures government in England has undertaken to secure good science to implement the coherent network of MPAs required by section 213 of the MACAA. There has been slow progress in this direction and a number

of statutory MPAs have now been created in the UK under the Marine Acts. Their effectiveness will be explored in Section 5.4.

#### 4.5 THE APPLICATION OF THE EU HABITATS DIRECTIVE TO FISHERIES

The Habitats Directive creates a number of MPA protecting marine habitats, species and birds. They comprise Special Protection Areas (SPAs) under the Birds Directive and Special Areas of Conservation (SACs) under the Habitats Directive; collectively, they are known as European Marine Sites (EMSs). SACs cover 7.6% of UK waters (JNCC, 2014) with the marine component of SPAs adding further to that total.<sup>24</sup>

The Habitats Directive has two key effects. Under Article 6(2) it creates a duty for member states to avoid disturbance to the habitats and species and Article 6(3) creates a restrictive management regime where activities in EMSs can only be permitted if they have no adverse impact on the integrity of the site (Rees *et al.*, 2013) or if there is an adverse impact the activity may be permitted but only if there is sufficient public interest and if there is environmental compensation. There is a great deal of literature on this process in general (see for instance Barham (2003)) but the application of the Habitats Directive to fisheries has always proved problematic because of the unusual nature of the licensing process. At this point it is worth restating Defra's initial position (Symes and Boyes, 2005, p.55):

*There is a common law public right to fish in England and Wales. Activities undertaken by this right are not authorised by any competent authority [...] our view is that these common rights activities are not plans or projects under Article 6 (3) [of*

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<sup>24</sup> Despite an exhaustive search the author could not find a figure for SPA coverage of UK waters.

the Habitats Directive] *unless they require further authorisation from a competent authority.*

By 2005 it was acknowledged generally that the EU Habitats Directive could apply to fisheries, as had been found by the European Court of Justice (ECJ) in the *Landelijke Vereniging tot Behoud van de Waddenzee v Staatssecretaris van Landbouw, Natuurbeheer en Visserij (Waddenzee)* (Case C- 127/02) [2004] ECR-7405 (*'the Waddenzee case'*). The ECJ held that licensed cockle picking in an EMS amounted to a 'plan or project'. Under Article 6 of the Directive the activity could only therefore take place if it had no significant effect, or if there was an environmental impact assessment which found that the 'plan or project' did not adversely affect the integrity of the EMS.<sup>25</sup> Defra argued (as reported by Symes and Boyes (2005)) that because the activity was not under licence but authorised by the public right to fish no appropriate assessment was required for most fisheries in UK waters (it may have applied in some cases if the fishery was in some way directly licensed). So, in effect, Defra's view was that the Directive did not apply to most UK commercial fishing.

Publication 9 records the first systematic application of the Habitats Directive in the Fal and Helford estuaries in Cornwall. The MCS questioned whether the local Sea Fisheries Committee should permit damaging scallop dredging inside the Fal and Helford Natura 2000 site. The MCS argued that the general fishing vessel licensed issued under section 4 of the Sea Fish (Conservation) Act 1967 amounted to a licence to fish for scallops and, therefore, required either management under Article 6(2) or appropriate assessment under Article 6(3). Ultimately, the MCS view was confirmed by Defra (MMO, 2013) to be the correct

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<sup>25</sup> It is possible for plans or projects to take place inside EMS if there are imperative reasons of overriding public interest – but it is submitted that would be very difficult to show for commercial fisheries.

approach and the Fal and Helford intervention went on to trigger systematic reform on the implementation of the Habitats Directive. All of the EMS in England and Wales are being surveyed with a view to the passage of appropriate regulation. The Welsh Government passed regulation to ban dredging for scallops in much of Welsh waters under the Scallop Fishery (Wales) (No.2) Order 2010 and 2011.

A practical policy change remains to be established in Northern Ireland, Scotland and in UK offshore waters.

#### 4.6 SUMMARY

It is remarkable that for a public asset, worth in excess of £1 billion, the legal relationship between the public owner of the resource and private commercial fishing interests are so poorly understood. The nature and extent of the public right to fish is unknown, and therefore it is not clear what fishing methods have been authorised or on what basis the fishery is owned, even after the *UK Association of Fish Producer Organisations* case.

There are weaknesses in the MACAA in the establishment of MPAs. The MACAA requires a high degree of scientific certainty before MPAs can be created and further fisheries regulation is still required to establish MPAs, but slow progress is being made in their identification and designation.

The Habitats Directive has been found to apply systematically to fisheries in England and Wales, and actions have been undertaken to manage inshore waters to the 6 nautical mile limit. The application of the Directive to fisheries (albeit 20 years after the original requirement for its implementation) demonstrates a slow but sure shift within marine



management towards the implementation of MPA management measures for commercial fisheries.

## CHAPTER 5: ANALYSIS AND DISCUSSION

### 5.1 INTRODUCTION

The aim of this research is to critically analyse the laws governing the UK fishery and recommend actions needed to improve practical fisheries management and achieve an effective balance between the needs of the commercial fishing sector, the environment and society. From the literature review it is plain that there are a number of key central flaws to fisheries governance in the UK which refer back to the objectives of this narrative:

- (1) The nature and extent of marine and tidal fishing rights in the UK;
- (2) The ownership of these fishing rights;
- (3) The mechanisms which establish marine protected areas by limiting fishing rights;  
and
- (4) The complex interplay between UK fishery regulation and the EU Habitats Directive.

This chapter will discuss these issues in turn by exploring some of the key principles which have been drawn out of this narrative and the publications.

### 5.2 THE NATURE AND EXTENT OF MARINE AND TIDAL FISHING RIGHTS

The literature shows that the nature and extent of the public right to fish remain poorly understood and poorly defined. Only the researcher and Professor Richard Barnes have shed any light on its nature. Following Barnes's (2011) analysis, the researcher remains almost alone in arguing that the nature of the right itself needs fuller exploration and limitation, as Barnes (2011) argues for regulatory limitations. Although evidence is provided in publications 1, 2, 4 and 5 of the need to tame the public right to fish, it is worth consolidating that argument here.

As part of publication 2 the researcher posted on YouTube unique images (Figure 5.1) taken by Professor Jason Hall-Spencer from the University of Plymouth of a routinely deployed fishing device known as a scallop dredge.



Figure 5.1: *Scallop dredging* (2005) (Jason Hall-Spencer)

It is worth viewing this footage as it gives a good impression of the actual mechanics of the ‘fishing’ activity in question. Given this is obvious evidence for marine science it is surprising that Professor Hall-Spencer’s footage is so rare, indeed this footage had received over 60,000 hits by October 2014, which demonstrates the scale of interest in the activity. A cursory glance at the effects of the dredges on the seabed raises the obvious issue for a property lawyer (debated more fully in publication 2) that there could be significant interference with the seabed and the plant and animal life attached to it, which are property owned by a third party (normally part of the Crown Estate to the 12 nautical mile limit). So it remains to be seen whether causing extensive damage to the seabed in pursuit of a

fishery is legitimate as an ancillary activity to the public right to fish or if it goes beyond it and, therefore, becomes a trespass. This is a fundamentally important question as the bottom trawled fisheries for scallops and prawns affect large area of UK waters, and these fisheries are associated with significant associated damage of the marine environment (see for instance Howarth *et al.*, (2013) amongst many others). It will be a question of fact and degree but it may be that some destructive practices, which regulators take for granted as permitted, may in fact, *prima facie*, be beyond the public right and, therefore, the point warrants further investigation and, if possible, a case or legislation to settle the issue. At present the point remains a lacuna and there has been no further discussion than the publications and Barnes (2011).

### 5.3 THE OWNERSHIP OF FISHING RIGHTS

The absence of a definite nature to the public ownership of the UK fishery is very problematic. To put it simply if it is not known how it is owned it is difficult to see how it can be regulated, as ownership is one of the most important ways to control an asset. There does seem to have been a turn in the tide though away from the general assumption that the right is inevitably being privatised through quota allocation (though the mechanism is by no means clear) to an acceptance of public ownership of the resource. Perhaps, of all the literature on the topic, the most significant is the Scottish Government's statement:

*We consider that fish quotas are a public asset belonging to no one individual or set of individuals. (Marine Scotland, 2014, p.26)*

This requires a sea change in how the resource is managed as public ownership brings with it a raft of responsibilities and a different way of viewing the fishery from it being merely ownerless. For instance, if the fishery is publicly owned it is up to the public to say how it is

dealt with, however (as highlighted in detail in publication 8) if quota has somehow been privatised then reallocation or removal of quota may require compensation to quota holders under Article 1 First Protocol of the European Convention on Human Rights. These issues are fundamental to the choices of fisheries managers in assessing their policy options. Following recent reforms to the CFP, now more than ever, the question of quota ownership needs to be resolved. Article 17 of the new CFP Basic Regulation states:

*When allocating the fishing opportunities available to them [...] Member States shall use transparent and objective criteria including those of an environmental, social and economic nature. The criteria to be used may include, inter alia, the impact of fishing on the environment, the history of compliance, the contribution to the local economy and historic catch levels. Within the fishing opportunities allocated to them, Member States shall endeavour to provide incentives to fishing vessels deploying selective fishing gear or using fishing techniques with reduced environmental impact, such as reduced energy consumption or habitat damage.*

So the EU may require alignment of quota in line with sustainability, and this may need it to be reallocated. At present there is no policy detailing how that will work in practice, and this is currently the subject of a judicial review (Harrison Grant, 2015). This is exceptionally important because, as Arnason (1999) and the other fisheries economists have long promoted, the UK has developed a trade in quota, and it has even been collateralised as security (Cardwell, 2012) and there is now a whole financial industry which has developed on the basis that quota is somehow a private asset.

The *United Kingdom Association of Fish Producer Organisation* case explored in publication 10 leaves the door open to compensation payments, but it did not settle exactly what

fishing quota was, who owned it or the terms of ownership. As the value of quota is potentially immense, it is submitted that it is not in the public interest for long-term rights in the fishery to have been given away and the whole process needs to be formalised.

There are also two further issues. If there is some form of public ownership of the fishery there is a real need to understand which Crown body owns it and what is that basis of that ownership. The identity of the Crown body is important because it affects not just issues such as staffing and training of that body but fundamental constitutional questions, particularly in the light of further devolution to Scotland. The management obligations attendant on the different types of Crown owner may vary as set out in Figure 5. The type of ownership itself will dictate the relationship between the Crown owner and the fishing business.

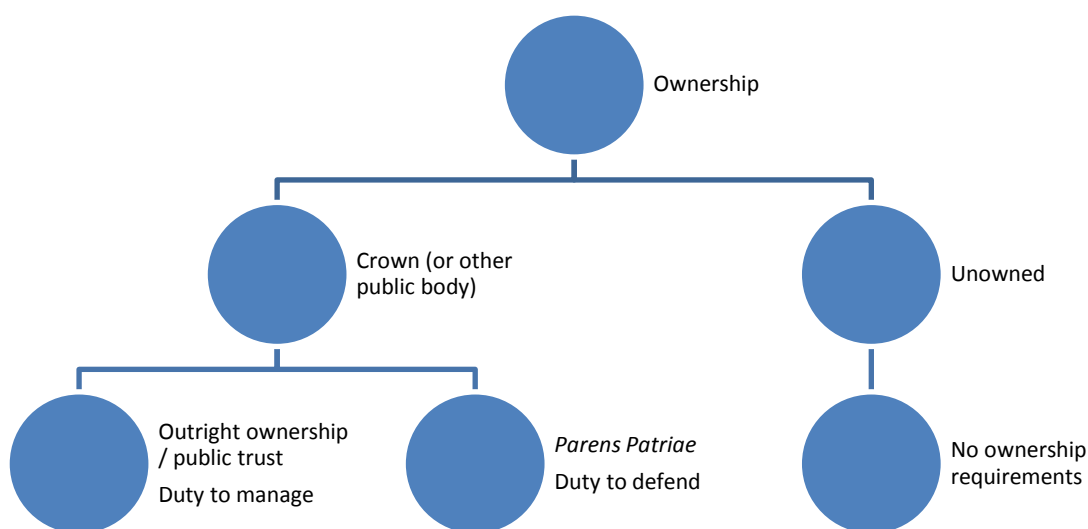


Figure 5.2: *Obligations arising from fisheries ownership*

There are three basic possibilities. At its most pressing the Crown has an active fiduciary duty to manage the fishery on behalf of the general public (publications 8). Most public

authority owners have clear duties when disposing or otherwise dealing with public assets and indeed some, like the Crown Estate Commissioners, have a duty to manage their property according to the principles of good estate management.<sup>26</sup> It is almost impossible to conceive under this set of responsibilities that quota should be distributed to commercial fishing businesses to be rented out by them to third parties since that would mean that there had been a disposal of a public asset below market value. It is also arguable that the pattern of access to the fishery should then reflect the public interest and public wishes and relate to the ecosystem services provided by the fishery (publication 6). In that case there would be far more systematic control of the fishery such as: maximising the public benefit regarding the stocks targeted; more inclusion of the recreational sector; more regard to marine biodiversity; more restrictions on those fishing activities known to be disproportionately harmful and a clear involvement of the duty to maintain and restore stocks to maximum sustainable yield (Appleby *et al.*, 2013). If there is a mere *parens patriae* type of ownership, there may be scope for a less stringent approach towards public ownership, with a duty to defend the fishery from encroachment rather than a duty to manage it. However, it is worth noting the Scottish Law Commission's (2003) comments on the Crown's marine estate that, over time, what was formerly regarded as a weak obligation may change and become more substantive.

In short, there is an urgent necessity to define the respective ownerships in the fishery itself and the proprietary rights (if any) of fishing businesses. With further devolution to Scotland this matter is even more important.

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<sup>26</sup> The Crown Estate Act 1961, sections 1(3) and 2.

## 5.4 ESTABLISHING MARINE PROTECTED AREAS

A central issue for UK fisheries regulators is whether they have a duty or a mere power to manage the UK's fishery. There is a key difference. In general a "duty to manage" places clear obligations on fisheries management to perform its function, while a mere power does not oblige any such action but gives the authorities the powers to exercise their management function if they so choose. It is difficult (but not impossible, see *Robinson v Cardiff City Council* (1987) unreported) to successfully sue or review a public authority for failing to exercise its power. The options for management are set out in Figure 5.3.

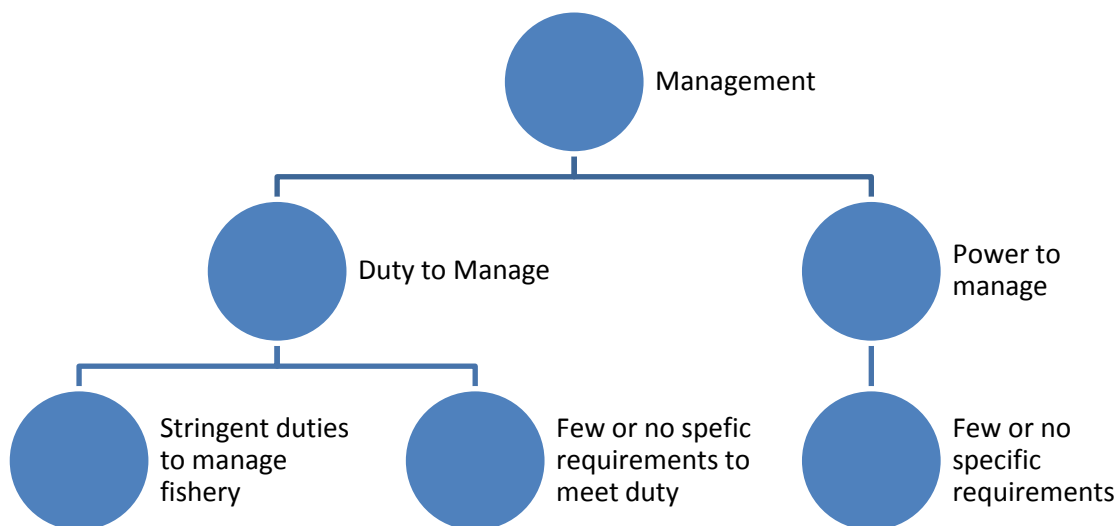


Figure 5.3: *Obligations arising from fisheries management function*

On the face of it, the legislation set out in the Blue Book (MMO,2014a) gives a number of powers to fisheries managers but very few duties. However, it is clear from the publications that there are a number of duties on fisheries management to have specific regard for biodiversity from: the Sea Fisheries (Wildlife Conservation) Act 1992 (the piece of specific fisheries legislation somehow left out of the Blue Book (MMO,2014a)); section 40 of the Natural Environment Rural Communities Act 2006 (highlighted in publication 2); the



Habitats Directive (highlighted in publication 9); European law: particularly the Marine Strategy Framework Directive and the Water Framework Directive; various obligations with respect to Marine Conservation Zones contained in the Marine Acts (highlighted in publications 3 and 7); together with obligations to maintain and restore stocks to maximum sustainable yield under UNCLOS set out in Appleby *et al.* (2013). This is by no means a systematic review, but it demonstrates the point that there are a number of key duties on fisheries managers and in many cases that fisheries management is much more than a mere power.

The obligations on managers are also often set out in statute. The English IFCA's have constitutional duties set out in the MACAA:<sup>27</sup>

- (1) *The authority for an IFC district must manage the exploitation of sea fisheries resources in that district.*
- (2) *In performing its duty under subsection (1), the authority for an IFC district must —*
  - (a) *seek to ensure that the exploitation of sea fisheries resources is carried out in a sustainable way,*
  - (b) *seek to balance the social and economic benefits of exploiting the sea fisheries resources of the district with the need to protect the marine environment from, or promote its recovery from, the effects of such exploitation,*

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<sup>27</sup> MACAA, section 153.

- (c) *take any other steps which in the authority's opinion are necessary or expedient for the purpose of making a contribution to the achievement of sustainable development, and*
- (d) *seek to balance the different needs of persons engaged in the exploitation of sea fisheries resources in the district.*

This is a sensible range of duties and because of their locally democratic nature the IFCAs are able to act effectively as land managers for their inshore marine area. However, IFCAs only control English waters to 6 nautical miles and they are alone in the UK administrative regime in having such clear cut duties or such localised control. The MMO's general duty<sup>28</sup> is far less precise:

*It is the duty of the MMO to secure that the MMO functions are so exercised that the carrying on of activities by persons in the MMO's area is managed, regulated or controlled —*

- (a) *with the objective of making a contribution to the achievement of sustainable development [...],*
- (b) *taking account of all relevant facts and matters [...], and*
- (c) *in a manner which is consistent and co-ordinated [...]*

Similar general obligations are placed on the devolved administrations in the Marine (Scotland) Act<sup>29</sup> and (though the obligation is even weaker) the Marine (Northern Ireland)

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<sup>28</sup> MACAA, section 2.

<sup>29</sup> Marine (Scotland) Act 2010, section 3.

Act.<sup>30</sup> With such a general duty on the MMO and with no local bodies<sup>31</sup> to control fishing in Wales, Scotland and Northern Ireland a great deal depends on the effectiveness of these central regulators and their enabling legislation to actively manage the resource.

The unusual nature of fisheries being sole competence of the EU also puts additional objectives set by the new Basic Regulation:<sup>32</sup>

*(1) The CFP shall ensure that fishing and aquaculture activities are environmentally sustainable in the long-term and are managed in a way that is consistent with the objectives of achieving economic, social and employment benefits, and of contributing to the availability of food supplies.*

*(2) The CFP shall apply the precautionary approach to fisheries management, and shall aim to ensure that exploitation of living marine biological resources restores and maintains populations of harvested species above levels which can produce the maximum sustainable yield.*

*In order to reach the objective of progressively restoring and maintaining populations of fish stocks above biomass levels capable of producing maximum sustainable yield, the maximum sustainable yield exploitation rate shall be achieved by 2015 where possible and, on a progressive, incremental basis at the latest by 2020 for all stocks.*

*(3) The CFP shall implement the ecosystem-based approach to fisheries management so as to ensure that negative impacts of fishing activities on the marine*

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<sup>30</sup> Marine Act (Northern Ireland) 2013, section 1.

<sup>31</sup> Except for regulated fisheries under the Shellfish Acts.

<sup>32</sup> Regulation 1380/2013, article 2.

*ecosystem are minimised, and shall endeavour to ensure that aquaculture and fisheries activities avoid the degradation of the marine environment.*

Power is delegated back to member states to manage their fishers but only in as much as they comply with these objectives.<sup>33</sup> It could, therefore, be argued that these objectives form a supplemental duty on all UK fisheries management. The CFP duties measure up sympathetically to the clear duties set out in the MACAA for the IFCAs, but it is easy to see how the devolved administrations, the MMO and Defra might assume they had more discretion, as the CFP duties have not been transposed directly into UK legislation.

The unique open access nature of marine fisheries means that ,while the National Trust and others (The National Trust, 2014) were able to conserve the terrestrial landscape through purchase from the nineteenth century onwards, no such developments have taken place in the marine environment, which remains *prima facie* a fishery. This is why the management of fisheries to create MPAs are so important, without them the automatic presumption is that fishing can take place, and there are very few other legitimate means of excluding it. There are some examples of restrictions on fishing from marine activities such as defence, the oil industry and, latterly, wind farms but the fundamental principle of open access fisheries still remains. However, nearly every other activity, with the exception of navigation, requires some sort of authority before it can be commenced, so fishing needs to be actively restricted. Recently, there has been a significant increase in MPAs for environmental reasons through two mechanisms: the application of the Habitats Directive to fisheries (covered in Section 5.5) and the creation of MPAs under the Marine Acts.

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<sup>33</sup> Regulation 1380/2013, article 19.

Publications 3 and 7 are critical of the measures contained in the MACAA for the establishment of nature conservation MPAs. There would appear to be an expensive and disproportionate requirement for science prior to designation. The obligation is for an MPA to demonstrate that it will benefit the environment, but there is no requirement on fisheries to assess their environmental impact prior to commencement. The designation mechanism would therefore appear to be perverse; fishing can go ahead unless science can demonstrate it is harmful – something which has never been systematically done.

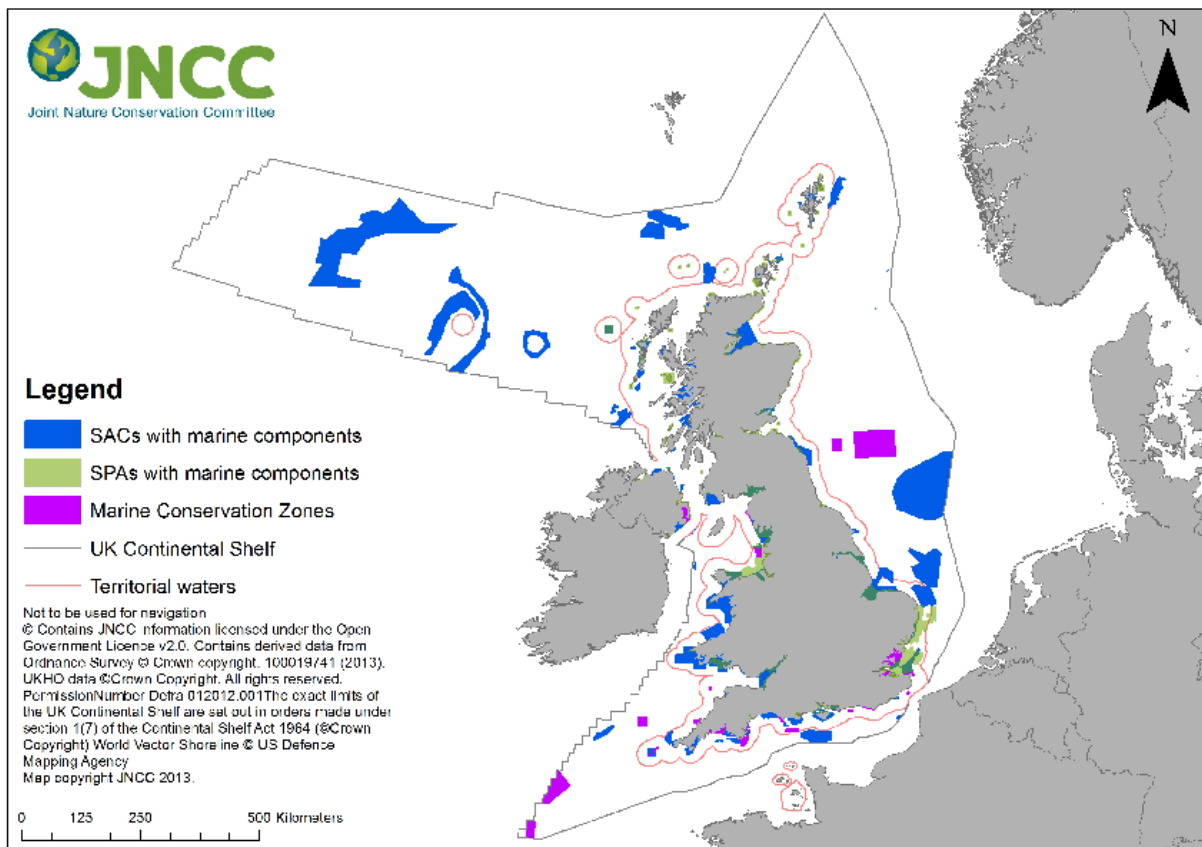


Figure 5.4: European Marine Sites and Marine Conservation Zones (JNCC)

Despite the doubts expressed, after extensive consultation, 27 MCZs have been designated in England,<sup>34</sup> there are none in Wales, one in Northern Ireland<sup>35</sup> and 30 statutory MPAs in Scotland under the Marine (Scotland) Act<sup>36</sup> (see Figure 5.4). In Scotland there is also a statutory no take zone in Lamlash Bay under the Inshore Fisheries (Scotland) Act 1984 and, elsewhere in the UK, designations for marine nature reserves in Skomer Island, Strangford Lough and Lundy Island under the Wildlife and Countryside Act 1981. Management measures for these MPAs to protect them from fishing are being decided on a case-by-case basis (JNCC, 2014c and Scottish Government, 2014). It does not automatically follow that these statutory MPAs will restrict fishing and, in most cases, this remains to be decided. If they do not restrict fishing, regardless of the terminology of ‘marine nature reserve’, ‘marine conservation zone’ and ‘marine protected area’ used in the legislation, there is a question mark as to whether they constitute MPAs at all according to the IUCN definition (Section 4.4). Their effectiveness therefore, remains to be seen. The total number of statutory MPAs not protected under the Habitats Directive cover 2.1%<sup>37</sup> of UK waters (JNCC,2014a and 2014b).

In terms of direct obligations on government regarding MPAs, the MACAA puts an obligation on England and Wales to create a network of MPAs.<sup>38</sup> The detailed objective of those statutory MPAs is to protect a representative range of features. The extent of the area protected from fishing under the legislation remains to be seen as it is so intimately tied to the definition of the word ‘feature’. It is not the purpose of this narrative to explore the

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<sup>34</sup> Under the MACAA.

<sup>35</sup> Under the Marine Act (Northern Ireland) 2013.

<sup>36</sup> Scotland does not use the term MCZ in its legislation.

<sup>37</sup> This figure does not take into consideration the 30 MPAs designated under the Marine (Scotland) Act 2010.

<sup>38</sup> MACAA, section 123.

exact nature of those obligations, but to make the point that some obligation sits on government to designate MPAs. There are similar provisions in the Marine (Scotland) Act<sup>39</sup> and the Marine Act (Northern Ireland).<sup>40</sup>

It may also be that there are facilities to create additional MPAs not contained within the JNCC calculations or the formal statutory MPA / MCZ creation process, through active fisheries management measures. IFCA byelaws, which protect bass nursery areas, for instance, may well afford additional protection for biodiversity and other ecosystem services through the comprehensive restrictions on fishing activities.<sup>41</sup> However, as regulators come to terms with the broader scope of their duties and obligations under the Marine Acts and from European legislation, it is to be hoped that MPAs and area based management of fisheries to benefit other ecosystem services continue to affect wider areas of UK controlled waters.

## 5.5 THE APPLICATION OF THE HABITATS DIRECTIVE TO UK FISHERIES MANAGEMENT

Greater progress has been made via the application of the Habitats Directive to fisheries. Pressure from the MCS and Client Earth begun as reported in publication 9 continued via letters (MMO, 2012) and culminated in Defra adopting a risk based approach (Defra, 2013). The effect is that the assumption that fishing did not constitute ‘a plan or a project’ was challenged and EMSs in England and Wales are now actively managed to protect them from bottom-towed gear. The risk based approach restricts the most damaging fishing activities first. This is still not technical compliance with the Directive, which essentially restricts any activities that cause an adverse impact on the integrity of the site, but it is a huge advance in

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<sup>39</sup> Marine (Scotland) Act 2010, section 79.

<sup>40</sup> Marine Act (Northern Ireland) 2013, section 13.

<sup>41</sup> See for instance Devon and Severn IFCA, 2014, byelaw 19.

terms of marine regulation. As yet, meaningful regulation has only been enacted within IFCA jurisdictions and Welsh waters to the 6 nautical mile limit. Outside this limit, because of historic access rights and EU membership, other EU member states can fish within UK waters, and for effective regulation restrictions need to bind their fleets too. So there is still a great deal of work, involving multiple regulators from EU member states, before full application of this Directive is achieved.

The application of the Habitats Directive to inshore fisheries also bodes well for the application of other EU environmental law (such as the Water Framework Directive and the Marine Strategy Framework Directive).

The sum total of marine protection is still well short of the 30% total of no take reserves called for by the Royal Commission on Environmental Pollution, and this possibly reflects a historic approach to manage the seas as a fishery rather than on the basis of marine ecosystem services. However, attitudes and regulations are changing.

## 5.6 SUMMARY

It is beyond the scope of this narrative to explore all the developments taking place within fishery management in the UK, but what is clear from the above analysis is that fundamental and vitally important aspects of fisheries governance have not yet been addressed:

- It is not known what activities are automatically permitted under the public right to fish;



- It is still not known who owns the UK's fishery, both in terms of the nature and status of quota and associated derivative products and which government body if any owns the UK's fishing rights;
- If there is a public owner, it is not known how that owner holds the fishery and its attendant duties;
- Greater clarity is required over the duties of fisheries managers (with the possible exception of IFCA's where there would appear to be clear constitutional parameters), the general duty to implement a network of MPAs set out in the Marine Acts needs to be complied with, but also fisheries management in general needs to reflect the ecosystem services fisheries should be aiming to secure and the other duties emanating from the EU CFP;
- It is disproportionately difficult to remove fishing rights and establish MPAs;
- The effectiveness of the statutory MPA regime in terms of active fishery management has yet to be tested and the current number of statutory MPAs falls considerably short of the 30% no take reserves recommended by the Royal Commission on Environmental Pollution; and
- There has been a historic failure to implement European environmental regulation to fisheries. England and Wales have begun to do so, but there is further work required to develop this in the rest of the UK and offshore. This is particularly important with the respect to the Habitats Directive, the Water Framework Directive and the Marine Strategy Framework Directive.

However there is also cause for optimism. The Scottish Government has recognised the public nature of fishing quota (the first of the UK administrations to do so publicly). MPAs

are being implemented (albeit slowly) and the Habitats Directive (and potentially other EU environmental law) is at last being applied to fisheries.

## CHAPTER 6: APPLICATION OF RESEARCH

### 6.1 INTRODUCTION

Although this narrative predominantly relates to doctrinal investigation, the methodology refers to a participatory approach. Many of the key points raised in the publications had their origins in the researcher's experiences in practice, but also the publications themselves were used by the researcher in a number of practical applications. Before concluding the narrative it is worth a brief description of the use of the publications in specific examples.

### 6.2 THE CREATION OF THE LAMLASH BAY MARINE RESERVE

In 2004 members of the Community of Arran Seabed Trust (COAST) approached the researcher to assist them with their aim of establishing the first community led 'no take zone' (a form of highly protected MPA) in the UK, following a visit by one the founders, Don MacNeish to the Leigh marine reserve set up by Professor Bill Ballantine in New Zealand. Despite significant local support COAST faced a number of complicated legal hurdles from the Scottish Executive (as the Scottish Government was then called). These can be summarised as follows:

- There was a clear lack of understanding as to what rights fishers had over Lamlash Bay, which made it very difficult to limit those rights;
- The fisheries team of the Scottish Government approached the fishery with a view that it had a power to manage it rather than a duty to manage it on behalf of the public; and
- It was unclear what legislation could be used to enact the no take zone, as none had been created before.

For each of these issues there was correspondence between COAST and the Scottish Executive. In approaching the Scottish Executive COAST used the following pieces of research: publication 1, which explored the nature of the public right to fish, the prime authorisation for commercial fishing in Lamlash Bay, and set about defining its nature and extent; publication 2, which questioned whether scallop dredging, the activity predominantly carried out by commercial fishers in Lamlash Bay, was permissible under the public right to fish or whether the activity amounted to a trespass on the seabed owner's freehold; and publication 6, which demonstrated the ecosystem approach to identify the core constituency affected by the activities of scallop dredgers in Lyme Bay.

As a result of all this work, COAST were able to build a substantive case for an MPA using a process under the Inshore Fisheries (Scotland) Act 1984 to remove the fishing right identified in Publication 1 for the benefit of the constituency identified by Publication 6, rather than a narrow group of fisheries interests. The Inshore Fishing (Prohibition on Fishing) (Lamlash Bay) (Scotland) Order 2008 was passed into law on 20<sup>th</sup> September 2008 (Figure 6.1). A letter of endorsement from Howard Wood (chair of COAST) is included in Appendix 2 (Wood, 2013). A further MPA proposed by COAST was established under the Marine (Scotland) Act 2010 around the South of Arran on 24<sup>th</sup> July 2014.

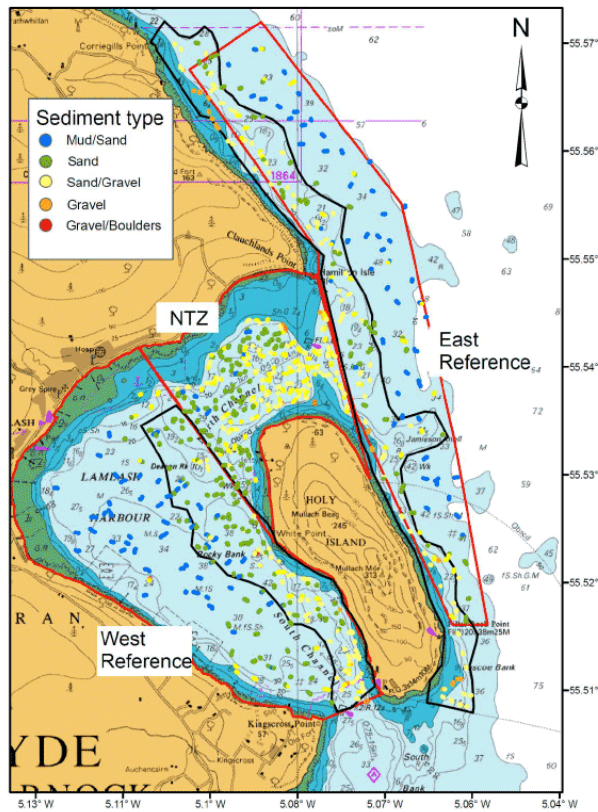


Figure 6.1: Lamlash Bay No Take Zone (marked NTZ) (Scottish Government)

### 6.3 AN INVESTIGATION INTO QUOTA MANAGEMENT

Most small-scale fishers in the UK have little access to quota and this materially affects their choice of fishery. One reason to target scallops in Lamlash Bay for instance, is because scallops are one of a dwindling number of fisheries which do not require quota. Unless fishers have ‘track record’ (paper evidence of fishing for the stock in the past) they have to buy or rent quota from other fishers and this can be hugely expensive (Cardwell, 2012). This is evidenced in the film *Who should have the right to fish?* (2011) (Figure 6.2)



Figure 6.2: *Who should have the right to fish? - Film (2011)*

The Pew Foundation requested the researcher investigate the legal position of quota in the UK (Appleby, 2008). This research led to publication 8 which found that the UK quota management system was built on very shaky legal foundations and was in danger of accidentally privatising the public fishery.

Greenpeace and the New Under Ten Metre Fishermen's Association used the research as a basis for their intervention in the *United Kingdom Association of Fish Producer Organisations* case. Endorsements regarding the application of this research from Willie MacKenzie (2013) of Greenpeace and Peter Aldous MP (2013) for Lowestoft are included in Appendix 2.

#### 6.4 CHAGOS ISLANDS MARINE RESERVE

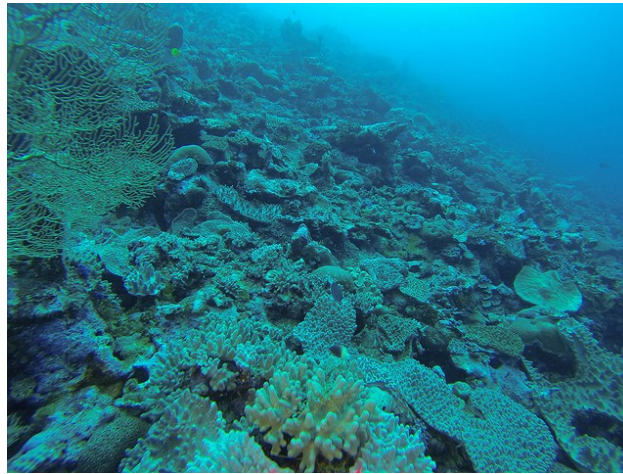


Figure 6.3: *Completely submerged atoll with the Chagos Reserve* (J. Turner [cc licence](#))

The expected outputs from research are not always the ones that bear fruit. Publication 7 which ostensibly is a critique of the Marine Bill made the point that the Bill did not deal with UKOTs, which comprise nearly 90% of UK controlled waters. Many of the UKOTs are islands with considerable contiguous waters giving the UK an extensive claim to huge areas of sea extending out to 200 nautical miles (Figure 3.1). Because of concerns over the UK MPA designation processes set out in publications 3 and 7, the researcher steered focus away from UK waters towards those of the UKOTs where there was potential for larger marine reserves via a simpler process.

With the researcher's involvement, the Blue Marine Foundation helped to form the Chagos marine reserve (Figure 6.3) in the British Indian Ocean Territories with the Bertarelli Foundation, the Chagos Conservation Trust and others; this is now the largest marine reserve in the world. An endorsement from Charles Clover (2013), chair of the Blue Marine Foundation is included in Appendix 2. The reserve is not without its critics (De Santo *et al.*, 2011) particularly in respect of the Chagossian population, who were displaced in the 1960s,

but a vast area of the ocean now has a degree of marine protection and better enforcement measures are being developed.

#### 6.5 THE APPLICATION OF THE HABITATS DIRECTIVE TO UK COMMERCIAL FISHERIES

The Habitats Directive nominally covered European marine sites around the UK. The MCS were investigating complaints from local people from the Fal and Helford estuaries that there was a failure to apply the Directive to commercial fishers. The substance of this failure is set out in publication 9. With the help of the researcher to peer review, the MCS, Client Earth and David Hart QC then wrote to the UK fisheries administrators seeking to apply the Habitats Directive in all UK waters (MMO, 2013). A risk based approach has now been accepted by fisheries managers in inshore Welsh and English waters. A letter of endorsement from Dr Bob Earll (2013), one of the founders of the MCS, is included in Appendix 2.

#### 6.6 CONCLUSION

The inclusion of these examples relating to application of the research is not just gratifying, but has a serious point. It is not until academic legal research is tested in the crucible of working examples that its validity can be properly triangulated. It is clear from the examples that each research objective of this narrative has had some positive resonance in the world beyond academia. Clarification of the nature and extent of marine and tidal fishing rights in the UK was key to the residents of Arran setting up their no take zone and MPA. The ownership of UK's fishing rights was not just an interesting academic puzzle but has real world ramifications and the publications were central to their (at least partial) resolution in the *United Kingdom Association of Fish Producer Organisations* case. The overly complex mechanisms which are being used to establish MPAs in UK waters encouraged the Blue



Marine Foundation to look for simpler jurisdictions in the UKOTs. Research into the interplay between UK fishery regulation and the EU Habitats Directive ultimately led to a change of policy on the part of the UK Government. Though not all the arguments presented in the publications were tested, or have even been used, the consistent support in these real world examples of a major themes developed in those publications has the effect of validating key arguments.

## 6.7 SUMMARY

It is a concern for any researcher that their work may sit on a shelf and not be applied beyond the confines of academia. The fact key concepts have been tested in the world beyond the literature has lent some strength to a number of the findings in this narrative in particular:

- It is clear that, despite the absence of major debate in the literature on the point, the open nature of the public right to fish poses a real problem for the management of the marine environment;
- Direct involvement via the *United Kingdom Association of Fish Producer Organisations* case lent context to the supposition that ownership of quota and fishing rights remains a significant issue within the fishing industry;
- The ease with which the huge Chagos marine reserve was created contrasted with the slow bureaucratic processes for the creation of UK statutory MPAs under the Marine Acts; and
- The systematic application of the Habitats Directive to fisheries in UK waters showed the real potential for the use of European environmental law to manage fisheries.

## **CHAPTER 7: CONCLUSIONS AND RECOMMENDATIONS**

### **7.1 INTRODUCTION**

The aim of this research was to critically analyse the laws governing the UK fishery and recommend actions needed to improve practical fisheries management towards achieving an effective balance between the needs of the commercial fishing sector, the environment and society. The collapse of fish stocks is not new; the Magna Carta in 1215 makes reference to the removal of fish weirs in English rivers and there was a commons petition in 1376 over the operation of a dredging device known as a 'wondrychoun'. However, it is evident from the Royal Commission on Environmental Pollution's (2004) report and the European Commission's (2013) statement that something urgently needs to be done to make commercial fisheries much more sustainable than they have been to date and a legal analysis of the existing regulatory regime is a good way of properly understanding what reforms are needed.

### **7.2 PUBLIC RIGHT TO FISH**

Commercial fishing is authorised in an extremely unusual way. No other extractive industry operates on the basis of a public right, which allows free access to the resource until that access is somehow restricted. Yet fundamentally that is the basis for fisheries, and though there is a pyramid of complicated legislation, at its heart fishing is an unregulated activity. This has led to a perverse situation where the inhabitants of the Isle of Arran had to struggle to establish a small marine reserve which needed the removal of the public right to fish. On land it would have been possible to establish a similar protected area through purchase or direct contact to a local public body, but the untrammelled and fundamental nature of the right to fish makes it hard to limit the right, except through complex regulatory means.

As Justice Cranstone hinted in the *United Kingdom Association of Fish Producer Organisations* case, nominally the public owns the right but receives no resource rent (indeed the activity is subsidized under the CFP). Fishing quota is traded but it has been acknowledged in the UK Parliament that the basis for these trades is poorly understood and, according to the *Economist* and publication 8, illegal. This is not a proper way to deal with a billion pound public asset.

With the exception of IFCA's in England, coastal communities have little direct say in fishery management. An ecosystem services analysis in publication 6 reveals that there are many cultural and regulatory services provided by the fishery and yet the institutional hurdles in place to implement measures to safeguard these services are considerable. As a result these services are not appropriately reflected in fisheries management across the UK. These are prime objectives established in the reformed CFP but in most cases not yet translated into direct duties on UK fisheries management.

In practice there needs to be a clearly defined arm's length relationship between the fishing industry and government with a proper licensing body, constituted in such a way that conflicts of interest are kept to a minimum and the public interest is properly secured.

### 7.3 MARINE PROTECTED AREAS

Fears over the effectiveness of the process of establishing MPAs were raised in publications 3 and 7. There have been a number of designations within UK waters but the absence of effective fisheries management within these MPAs leads to the inevitable conclusion that in most cases these remain 'paper parks' and, for now at least, an enormously expensive public relations exercise. Even if these areas receive meaningful protection they are still well short of the 30% figure proposed by the Royal Commission on Environmental Pollution.

#### 7.4 THE HABITATS DIRECTIVE AND EU ENVIRONMENTAL LAW

The Marine Conservation Society / Client Earth legal action supported by this research against Defra was a real success in converting paper parks to actively protected environments in English and Welsh waters. This demonstrates the power of EU legislation in dealing with reluctance to implement environmental measures.

#### 7.5 METHODOLOGICAL ISSUES

The use of action research methods to support doctrinal publications has had a positive effect both in triangulating possible avenues of research and creating impact as evidenced by the testimonials in the Appendix.

#### 7.6 RECOMMENDATIONS

To improve the fisheries management system in the UK the following measures need to be taken:

- The public fishery needs to be vested in an identifiable Crown entity;
- Fishing quota needs to be properly granted by that body;
- Fishing rights should be distributed on the basis of scientific advice, maximising the ecosystem services provided by the fishery;
- For inshore waters, fisheries should be actively managed at a local level and there should be a clearer set of duties to manage the public fishery in the public interest, particularly outside of England;
- Further MPAs need to be created to safeguard the ecosystem services from fisheries;
- European environmental regulation should be fully applied to fisheries; and

- The Blue Book (MMO, 2014a) should be expanded to include all the relevant legislation and case law and there should be proper commentary on modern UK fisheries law.

These proposals are not intended to undermine the IFCA, the MMO, Defra, the devolved administrations or the EU, and there are real reforms contained in the Marine Acts and the reformed CFP, but the current legislative basis for fisheries management leaves too many fundamental questions unanswered and puts the administrators in an unacceptably weak position to actively manage the resource. Further primary legislation is almost certainly required for the UK and the devolved administrations, but informed Parliamentary debate is preferable to leaving these fundamental issues to be settled on a piecemeal basis through the courts. Reforms are required to meet the UK's international commitments for: establishing a coherent network of MPAs; achieving maximum sustainable yield; meeting targets for good environmental status under the Marine Strategy Framework Directive; and adopting the ecosystem approach.

The action based doctrinal research method used to support the publications also showed real promise in both triangulating research areas and creating lasting impact. The method itself, in its application to UK and environmental and social issues warrants further investigation.

## REFERENCES

Agriculture Select Committee (1999) *Eighth Report – Sea Fishing*. London: UK Parliament.

Anderson, D., Anderson, R., MacNeish, D., Butcher, D., Wood, H., Vella-Boyle, T., Wood, H. and Appleby, T. (2006) *Caught in Time (a film)*. Community of Arran Seabed Trust. Available from: <https://www.youtube.com/watch?v=n2tTyOYNgyC> [Accessed 24 October 2014].

Appleby, T. (2008) *Report into the establishment of marine protected areas in UK waters under existing legislation. Discussion Paper*. University of Bristol. Available from: <http://eprints.uwe.ac.uk/20084/> [Accessed 24 October 2014].

Appleby, T. (2010) *Legal Briefing Note on the Distribution of UK Quota*. Available from: [http://www.fishsec.org/downloads/1292705784\\_30057.pdf](http://www.fishsec.org/downloads/1292705784_30057.pdf) [Accessed 17 June 2014].

Appleby, T., Everard, M., Palmer, R. and Simpson, S. (2013) *Plenty More Fish in the Sea? A working paper on the legal issues related to fishing beyond maximum sustainable yield: A UK case study. Working Paper*. University of the West of England. Available from: <http://eprints.uwe.ac.uk/22111/> [Accessed 24 October 2014].

Arnason, R. (1999) Property Rights as a Means of Economic Organisation. FishRights 99 Conference, Use of Property Rights in Fisheries Management, Fremantle 11-19 November 1999.

Arthurs, H.W. (1983) *Law and Learning: Report to the Social Sciences and Humanities Research Council of Canada by the Consultative Group on Research and Education in Law*. Information Division, Social Sciences and Humanities Research Council of Canada: Ottawa.

Ballantine, B. (in press) Fifty years on: Lessons from marine reserves in New Zealand and principles for a worldwide network. *Biological Conservation*. DOI: 10.1016/j.biocon.2014.01.014.

Barham, P. (2003) The Habitats Directive and port development. *Environmental Law and Management*. 15(4), pp. 229-232.

Barnes, R. (2009) *Property Rights and Natural Resources*. Hart Publishing.

Barnes, R. (2011) Revisiting the public right to fish in British waters. *International Journal of Marine and Coastal Law*. 26(3), pp. 433-461.

Biberbach, P. (2007) Planning Aid for Scotland: a much-needed bridge builder. *Scottish Planning and Environmental Law*. 122, pp. 79-80.

Bonyhady, T. (1987) *The Law of the Countryside*. Abingdon: Professional Books.

Burke, N. (2013) Nicaragua v Colombia at the ICJ: better the devil you don't? *Cambridge Journal of International and Comparative Law*. 2(2), pp. 314-326.

Cardwell, E. (2012) Invisible Fishermen. In: Hojrup, T. and Schreier, K. (2012) *Europe's Fisheries at a Tipping Point*. Universidad de Murcia: Estudios Europeos. 1(1), pp. 367-412.

Churchill, R. and Owen, D. (2010) *The EC Common Fisheries Policy*. Oxford: Oxford University Press.

Churchill, R. and Lowe, A.V. (1999) *The Law of the Sea* Manchester: Manchester University Press.

Chynoweth, P. (2009) Legal Scholarship: A Discipline in Tradition, Editorial, *International Journal of Law in the Built Environment*. 1(1), pp 5-8.

Clark, D. (2000) Icon of Liberty: The Status and Role of the Magna Carta in Australia and New Zealand Law, *Melbourne University Law Review*. 24 (3), pp. 866-892.

Coats, M. (2005) *Action Research: A Guide for Associate Lecturers*. Centre for Outcomes Based Education: Open University.

Collins, S. (2014) Brussels throws away common sense. *The Scotsman*. 17 October 2014.

Community of Arran Seabed Trust (2005) *The Arran Marine Regeneration Trial Development of a Community-Based Marine Protected Area: The Proposals*. Available from: <http://www.arrancoast.com/Archives/proposal.pdf> [accessed 12 December 2013].

Community of Arran Seabed Trust (2014) *About us*. Available from: <http://www.arrancoast.com/about-coast> [Accessed 17 June 2014].

Costello, C. Gaines, S. D. and Lynham, J. (2008) Can catch shares prevent fishery collapse? *Science*. 321 (5896), pp. 1678-1681.

DG MARE (2014) *Reform of the Common Fisheries Policy*. Available from: [http://ec.europa.eu/fisheries/reform/index\\_en.htm](http://ec.europa.eu/fisheries/reform/index_en.htm) [Accessed 21 March 2013].

Dadge, C. (2012) A critical evaluation of the common fisheries policy and reform proposals. *Environmental Law and Management*. 24(2), pp. 60-74.

Defra (2007) *Sea Change – A Marine Bill White Paper*. Available from: <http://archive.defra.gov.uk/environment/marine/documents/legislation/marinebill-whitepaper07.pdf> [Accessed 15 July 2014].



Defra (2014) *Department for the Environment Food and Rural Affairs*. Available from: <https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs> [Accessed 21 October 2014]

Defra (2013) *Revised approach to the Management of commercial fisheries in European Marine Sites – Overarching Policy and Delivery Document*. Available from: [http://www.marinemanagement.org.uk/protecting/conservation/documents/ems\\_fisheries/policy\\_and\\_delivery.pdf](http://www.marinemanagement.org.uk/protecting/conservation/documents/ems_fisheries/policy_and_delivery.pdf) [Accessed 7 July 2014].

Devon and Severn IFCA (2014) *Enforcement*. Available from: [http://www.devonandsevernifca.gov.uk/Bye\\_laws](http://www.devonandsevernifca.gov.uk/Bye_laws) [Accessed 18 August 2014].

De Santo, E.M., Jones P.J.S. and Miller A.M.M. (2011) Fortress conservation at sea: a commentary on the Chagos MPA. *Marine Policy*. 35(2), pp. 258-260. DOI:10.1016/j.marpol.2010.09.004.

Douvere, F. (2008) The importance of marine spatial planning in advancing ecosystem-based sea use management. *Marine Policy*. 32(5), pp. 762-771. DOI: 10.1016/j.marpol.2008.03.021.

Erikstein, K. and Swan, J. (2014) Voluntary guidelines for flag state performance: a new tool to conquer IUU fishing. *International Journal of Marine and Coastal Law*. 29(1), pp.116-147

European Commission (2012) *Facts and Figures on the Common Fisheries Policy : basic statistical data*. Available from: [http://ec.europa.eu/fisheries/documentation/eu\\_fisheries\\_key\\_facts/index\\_en.htm](http://ec.europa.eu/fisheries/documentation/eu_fisheries_key_facts/index_en.htm) [Accessed 13 December 2013].

European Commission (2013) *Fisheries*. Available from: [http://ec.europa.eu/fisheries/reform/background/index\\_en.htm](http://ec.europa.eu/fisheries/reform/background/index_en.htm) [Accessed 13 December 2013].

European Commission, (2012) *Communication from the Commission to the Council concerning a consultation on Fishing Opportunities for 2013*. COM(2012) 278 final.

European Commission (2014) *Fisheries Measures for Marine Natura 2000 Sites*. Available from:

[http://ec.europa.eu/environment/nature/natura2000/marine/docs/fish\\_measures.pdf](http://ec.europa.eu/environment/nature/natura2000/marine/docs/fish_measures.pdf)

[Accessed 22 July 2014].

European Union (2014) *EUR-Lex*. Available from: <http://eur-lex.europa.eu/homepage.html>

[Accessed 21 October 2014].

Fear, A.B. (1859) *Treatise on Rights of Water: Including public and private rights to the sea and sea-shore*. London: V. and R. Stevens and G. S. Norton.

Foreign and Commonwealth Office (2012) *The Overseas Territories Security, Success and Sustainability*. Available from:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/12249/ot-wp-0612.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/12249/ot-wp-0612.pdf) [Accessed 21 October 2014].

Gaventa, J. and Cornwall, A. (2008) Power and Knowledge. In: Reason, P. and Bradbury, H. eds. (2008) *The SAGE Handbook of Action Research Participative Inquiry and Practice*. 2nd Ed. SAGE: London.

Gloucester Harbour Trustees, (2014) *What we do*. Available from: [http://www.gloucesterharbourtrustees.org.uk/what\\_we\\_do.html](http://www.gloucesterharbourtrustees.org.uk/what_we_do.html) [Accessed 17 June 2014].

Gubbay, S. (2006) *Marine Protected Areas: A review of their use for delivering marine biodiversity benefits*. English Nature Research Reports. 668.

Hale, M., (1888) *De Jure Maris et Brachiorum Eiusdem*. In: Moore, S. A., (1888) *A History of the Foreshore and the Law Relating thereto*. Stevens and Haynes: London.

Halsburys Laws of England (2014). LexisNexis. Available from: <https://www.lexisnexis.com/uk/legal/> [Accessed 24 October 2014].

Harrison Grant (2015) *Judicial Review of Common Fisheries Policy Implementation*. Available from: <http://www.hglaw.co.uk/judicial-review-of-common-fisheries-policy-implementation/> [Accessed 5<sup>th</sup> March 2015].

Hendry, I. and Dickson, S. (2010) *British Overseas Territories Law*. Hart Publishing: Oxford and Portland.

Howarth, L., Roberts C., Thurstan, R. and Steward, B. (2013) The unintended consequences of simplifying the sea: making the case for complexity. *Fish and Fish Science*. 15, pp. 690–711. DOI: 10.1111/faf.12041.

Howarth, W. (2004) Progress and prospects in fisheries policy. *Water Law*. 15(2), pp. 47-8.

Howarth, W. and Jackson, S. (2011) *Wisdom's Law of Watercourses*. 6<sup>th</sup> ed. London: Shaw and Sons.

Holborn, G. (2001) *Legal Research Guide*. Oxford: Oxford University Press.

Howarth, L. M., Wood, H. L., Turner, A. P. and Beukers-Stewart, B. D. (2011) Complex habitat boosts for recruitment in a fully protected marine reserve. *Marine Biology*. 158(8), pp. 1767-1780. DOI: 10.1007/s00227-011-1690-y.

Huffman, J. (1988) A Fish out of Water: The Public Trust Doctrine in a Constitutional Democracy. *Environmental Law*. 19, pp. 527-572.

Hughes, I. (2008) Action Research in Healthcare. In Reason, P. and Bradbury, H. eds. (2008) *The SAGE Handbook of Action Research Participative Inquiry and Practice*. 2nd Ed. SAGE: London.

IUCN (1992) *Guidelines for Establishing Marine Protected Areas. A Marine Conservation and Development Report*. IUCN.

Jones, P. (2014) *Governing Marine Protected Areas: resilience through diversity* Earthscan / Routledge: London.

JNCC (2014a) *Marine protected areas in the UK*. Available from: <http://jncc.defra.gov.uk/page-5201> [Accessed 21 July 2014].

JNCC (2014b) *SACs with marine component*. Available from: <http://jncc.defra.gov.uk/page-1445> [Accessed 15 July 2014].

JNCC (2014c) *Establishing fisheries management measures to protect Marine Conservation Zones*. Available from: [http://jncc.defra.gov.uk/PDF/MCZ\\_FisheriesManagementFactsheet.pdf](http://jncc.defra.gov.uk/PDF/MCZ_FisheriesManagementFactsheet.pdf) [Accessed 22 July 2014].

Jones, P.J.S., Burgess, J. and Bhattachary, D. (2001) *An evaluation of approaches for promoting relevant authority and stakeholder participation in European Marine Sites in the UK*. English Nature (UK Marine SACs Project).

Klein, C.J., Chan, A., Kircher, L., Cundiff, A.J., Gardner, N., Hrovat, Y., Scholz, A., Kendall, B.E., and Airame, S. (2008) Striking a Balance between Biodiversity Conservation and Socioeconomic Viability in the Design of Marine Protected Areas. *Conservation Biology*. 22(3) pp. 691 - 700

Lexis Library (2014) LexisNexis. Available from: <https://www.lexisnexis.com/uk/legal/>  
[Accessed 24 October 2014]

Marine Scotland (26<sup>th</sup> June 2014) *Scotland's Fish Quota – A Consultation* Scottish Government. Available from: <http://www.scotland.gov.uk/Resource/0045/00454462.pdf>  
[Accessed 7 July 2014].

Marine Management Organisation (2013) *Habitats Directive Correspondence* Available from: <http://www.marinemanagement.org.uk/protecting/conservation/ems.htm> [Accessed 19 January 2014].

Marine Management Organisation (2014a) *The Blue Book*. Available from: [http://www.marinemanagement.org.uk/fisheries/monitoring/regulations\\_bluebook.htm](http://www.marinemanagement.org.uk/fisheries/monitoring/regulations_bluebook.htm)  
[Accessed 14 July 2014].

Marine Management Organisation (2014b) *Marine Management Organisation: Services and Guidance*. Available from: <https://www.gov.uk/government/organisations/marine-management-organisation> [Accessed 21 October 2014].

Marston, G. (1981) *The Marginal Seabed: United Kingdom Legal Practice*. 1st ed. Clarendon: Oxford.

Marston, G. (1991) The Crown's Seabed Estate - a Valuable Prerogative. *Cambridge Law Journal*. 50, pp. 384-385.

McIntyre, F., Fernandes, P.G. and Turrell W.R. (2012) Clyde Ecosystem Review. *Scottish Marine and Freshwater Science Report*. 3(3).

Monaghan, C. (2013) The Chagossians go to Strasbourg: Convention rights and the Chagos Islands - Chagos Islanders v United Kingdom (Application No.35622/04). *European Human Rights Law Review*. 3, pp. 314-325.

Moore, S.A. and Moore, H.S. (1903) *The History and the Law of Fisheries*. London: Stevens & Haynes.

Owen, D. (2004) Interaction between the EU Common Fisheries Policy and the Habitats and Birds Directives. *IEEP Policy Briefing*. London: Institute for European Environmental Policy.

Paterson, J. (1863) *Fishery Laws of the United Kingdom*. Shaw and Sons: London and Cambridge.

Pieraccini, M. (2013) Establishing an ecologically coherent network of marine protected areas in English waters: what does the designation of marine conservation zones under the Marine and Coastal Access Act 2009 add to the picture? *Environmental Law Review*. 15(2), pp. 104-120.

Polunin, N.V.C. (2002) Marine protected areas, fish and fisheries. In: Hart, P.J.B. and Reynolds, J.D. eds. (2002) *Handbook of Fish and Fisheries*. Oxford: Blackwell, 2002, pp.293-318.

Reason, P. and Bradbury, H. (2008) *The SAGE Handbook of Action Research Participative Inquiry and Practice*. 2<sup>nd</sup> ed. London: SAGE.

Ravera, F. Hubareck, K., Reed, M. and Tarrason, D. (2001) Learning from experience in adaptive action research: a critical comparison of two case studies applying participatory scenario development and modelling approaches. *Environmental Policy and Governance*, 21(6), 433-453.

Rees, S.E., Sheehan, E.V., Jackson, E.L., Gall, S.C., Cousens, S.L., Solandt, J.L., Boyer, M., Attrill, M.J. (2013) A legal and ecological perspective of 'site integrity' to inform policy development and management of Special Areas of Conservation in Europe. *Marine Pollution Bulletin*. 15; 72(1), pp.14-21. DOI: 10.1016/j.marpolbul.2013.03.036.

Rothwell, D.R. and Stephens, T. (2010) *The International Law of the Sea* Hart Publishing: Oxford and Portland.

Royal Commission on Environmental Pollution, (2004) *Turning the tide*. London: The Stationary Office. Available from: [www.fcrn.org.uk/sites/default/files/Turning\\_the\\_tide\\_%20Report.pdf](http://www.fcrn.org.uk/sites/default/files/Turning_the_tide_%20Report.pdf) [Accessed 24 October 2014].

Scallop Dredging (2007) Directed by Thomas Appleby. UK. YouTube. Available from: <http://youtu.be/gKqM3hXwcRs> [Accessed 15 July 2014].

Scottish Government (2014a) *Sea Fisheries*. Available from <http://www.scotland.gov.uk/Topics/marine/Sea-Fisheries> [Accessed 21 October 2014].

Scottish Government (2014b) *Marine Protected Area Designations*. Available from: <http://www.scotland.gov.uk/Topics/marine/marine-environment/mpanetwork/developing/DesignationOrders> [Accessed 12 August 2014].

Scottish Law Commission, (2003) *Report on the Law of the Foreshore and Seabed*, Edinburgh: The Stationary Office.

Serdy, A. (2011) Postmodern international fisheries law, or we are all coastal states now. *International and Comparative Law Quarterly*. 60(2) pp. 387-422.

Stair Memorial Encyclopaedia (2014). Available from: <https://www.lexisnexis.com/uk/legal/> [Accessed 24 October 2014].

Steadman, D., Appleby, T. and Hawkins, J. (2014) Minimising unsustainable yield: Ten failing European fisheries. *Marine Policy*. 48, pp. 192-201.

Swantz, M. (2008) Participatory Action Research as Practice. In Reason, P. and Bradbury, H. eds. (2008) *The SAGE Handbook of Action Research Participative Inquiry and Practice*. 2nd Ed. SAGE: London.

Symes, D. and Boyes, S., (2005) *Review of Fisheries Management Regimes and Relevant Legislation in UK waters*. Institute of Estuarine and Coastal Studies: University of Hull.

Techera, E.J. and Klein, N. (2011) Fragmented governance: Reconciling legal strategies for shark conservation and management. *Marine Policy*. 35(1), pp. 73-78. DOI: 10.1016/j.marpol.2010.08.003.



The National Trust (2014) *Our History*. Available from: <http://www.nationaltrust.org.uk/what-we-do/who-we-are/our-history/> [Accessed 24 October 2014]

Thurstan, R. and Roberts, C. (2010) Ecological Meltdown in the Firth of Clyde, Scotland: Two Centuries of Change in a Coastal Marine Ecosystem. *PLoS ONE*. 5(7), pp. 1-14. DOI:10.1371/journal.pone.0011767.

The Economist (1998) *Financial Trawling*. 17th November 1998. Available from: <http://www.economist.com/node/176971> [Accessed 20 March 2013].

Twinings, W. and Miers D. (2010) *How to do Things with Rules: A Primer of Interpretation*. 5<sup>th</sup> ed. Cambridge University Press.

Wakefield, J. (2013) The problem of regulation in EU fisheries. *Environmental Law Review*. 15(3), pp. 191-204.

Welsh Government (2014a) *Commercial fishing*. Available from: <http://wales.gov.uk/topics/environmentcountryside/fisheries/commercialfishing/?lang=en> [Accessed 21 October 2014].

Westerman, P. C. (2011) Open or Autonomous? the Debate on Legal Methodology as a Reflection of the Debate on Law. In: Van Hoecke, M. ed. (2011). *Methodologies of Legal Research* UK: Bloomsbury, p. 87.

Westlaw UK (2014) Thomson Reuters. Available from: <http://legalresearch.westlaw.co.uk/> [Accessed 24 October 2014].

*Who should have the right to fish? Film* (2011) [online] Directed by Heydon Prowse. UK.

Don't Panic website. Available from:

<http://www.theguardian.com/environment/video/2011/dec/28/fishing-quota-video>

[Accessed 15 July 2015].