

The definition of marine recreational fishing in Europe

M.G. Pawson^{a,*}, H. Glenn^{b,1}, G. Padda^{a,2}

^aThe Centre for Environment, Fisheries and Aquaculture Science (Cefas), Pakefield Road, Lowestoft, Suffolk NR33 0HT, UK

^bCentre for the Economics & Management of Aquatic Resources (CEMARE), University of Portsmouth, Boathouse no 6, College Road, HM Naval Base, Portsmouth, Hampshire PO1 3LJ, UK

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Abstract

To describe marine recreational fisheries, their socio-economic importance and interactions with other fisheries and the environment, it is necessary to define what is meant by recreational fishing. A review of European Member States' national legislation revealed considerable variation in ownership and access to coastal waters/fisheries, and in the legal distinction between sport fishing and other recreational uses of marine fisheries and their commercial (catching for sale and profit) counterparts. Together with a re-examination of existing definitions, this has enabled us to suggest definitions that may be used to develop a common approach to evaluate participation and socio-economic value of marine recreational fishing, and guide attempts to legislate for the benefit and development of marine recreational fishing across Europe.

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1. Introduction

Managers of marine fisheries in European Community waters have paid little attention to the impacts or requirements of recreational fisheries, though their participants may be responsible for considerable social and economic activity. Total expenditure on recreational fishing across Europe is believed to exceed €25 billion a year [1], and the European Anglers Alliance (EAA) estimates that 8–10 million recreational sea anglers support an industry valued at €8–10 billion [2]. By comparison, the value of trade in commercial fisheries products in the 25 EU member states in 2005 was estimated at €26 billion [3]. In its report on the problems encountered by inshore fishermen (A6-0141/2006), the European Parliament's Committee on Fisheries noted that there is increasing tension between inshore fishermen, who fish for a liveli-

hood, and recreational fisheries that are competing in the same physical space for the same populations of fish and crustaceans, and suggested that this needs to be addressed.

The European Commission further noted, in its Green Paper on a future maritime policy (June 2006), that while “there seems little doubt that the value to the coastal economy of a fish caught by an angler exceeds the value of the same fish caught for commercial purposes—it is understandable that fishermen demand that restrictions on the taking of certain fish for conservation purposes are also applied to sport fishers, particularly when the latter use similar fishing gear to professional fishermen. These issues require further study and consideration.”

Recreational fisheries may interact with commercial fishing in many ways. The main areas of conflict are (a) competition for resources, especially where unlicensed recreational or “hobby” fishermen compete with commercial pot or net fisheries both for the resource and by supplying low priced fish to markets and (b) competition for space and gear interactions, for example between anglers and fixed nets, set close inshore or around wrecks. On the positive side, chartering by angling parties provides alternative employment opportunities for commercial fishing vessels.

*Corresponding author. Tel.: +44 1502524436; fax: +44 1502526351.

E-mail addresses: mike.pawson@cefass.co.uk (M.G. Pawson),

Helen.Glenn@port.ac.uk (H. Glenn),

gurpreet.padda@cefass.co.uk (G. Padda).

¹Tel.: +44 239284 4087; fax: +44 239284 4614.

²Tel.: +44 1502524241; fax: +44 1502526351.

In northwest Europe (UK, Ireland, France and Norway), the availability of large fish (possibly with a degree of exclusive access) is important to sport anglers, whereas commercial fisheries require high catch rates of marketable fish that enable them to continue to make a livelihood. As a consequence, sport anglers and commercial fishermen can make conflicting claims over the conservation needs of fish stocks, since they tend to have differing requirements either in terms of fish availability or size structure.

Perceptions of the interactions between recreational and commercial fishing activity and the problems this causes may be quite focused on either side, and this is not helped by a lack of definition of what constitutes “recreational” or “sport” fishing. Cefas and Cemare recently carried out a project (FISH/2004/011 “Sport Fisheries” [4]) aimed at providing a first assessment of the character of marine recreational fisheries and their relative importance in social, economic and environmental terms in the European Community waters. This is seen as a first step both to quantify the scale of these activities at a European level and to demonstrate or evaluate the scope and potential benefits of any changes to management in relation to exploitation of marine resources in terms of conservation and socio-economic benefits. The study revealed that there is no formal framework for managing (or even identifying) marine recreational fishing at the EU level and, to identify those activities that may be regarded as either recreational or sport fisheries, it is necessary to be able to distinguish them from commercial fishing activities.

There is an array of definitions in the literature pertaining to recreational fishing and its constituent parts and related sectors [5]. Most confusing, even to those intimately involved with the field, is the interchangeable use of the some of the following terms: hobby fishing, subsistence fishing, recreational fishing, leisure fishing, sports fishing, angling and recreational angling. Note also that the catching gear used in “recreational” fisheries may be diverse, viz rod and line, spear fishing, small-scale netting and potting, etc. In an attempt to develop a common language for recreational angling, the EAA [6] noted that anglers, managers, politicians and scientists need a proper definition to understand each other, to direct research, for management purposes and for legal uses. To this we might add that appropriate and common definitions are required to enable better evaluation of the different fisheries sectors and more effective regulation of fishing activities as a whole. This paper attempts to resolve this confusion over definitions, to illustrate the differences in perception and legal recognition of recreational fishing in European Member States, and to suggest a common basis for management both at national and pan-European levels.

2. Methodology

We have used two approaches to define and distinguish commercial and recreational fishing and, as a subset, sport

fishing. First, we use existing definitions given in published sources (e.g. reports, web-sites and journal articles) to clarify the meaning of terminology that is commonly used to define aspects of the recreational fishing sector and its constituent parts and activities.

Second, we present a summary review of primary and secondary national legislation of relevance to defining and regulating those activities that are construed to be fishing for recreational or subsistence purposes, as opposed to fishing for commercial purposes. This is intended to show how these legal definitions vary between European Member States, and thus to provide a basis for evaluating marine recreational fishing activities within the EU. The full review, which adheres more closely to the terminology used (after translation into English), is available at Annex 1 of [4].

3. Results

3.1. Definitions

The Oxford English Dictionary’s description of *fishing* as “*The action, art, or practice of catching fish*” is rather limited and should be extended to include molluscs and crustaceans. A more complete definition in terms of target species is provided by the US NOAA’s National Marine Fisheries Service (NMFS) [7]:

Fishing or fisheries is “*the industry or occupation devoted to the catching, processing, or selling of fish, shellfish, or other aquatic animals*”

which introduces the notion that fishing or fisheries may involve a combination of catching, processing or selling, and infers a commercial activity.

A common theme in many definitions of “*recreational fishing*” relates to what it does not constitute. For example, the European Commission defines “*recreational and game fisheries*” as “*all fishing activities not conducted for commercial fishing purposes*” [8]. Others define recreational fishing as an activity that “*does not include sale of catch*” [9], or as an activity “*not deemed commercial fishing*” [10]. However, the NMFS “*Marine Recreational Fishery Statistics Survey*” introduces a notion that part of a recreational fishery catch could be sold for financial gain, “*If part or all of the catch was sold, the monetary returns constituted an insignificant part of the person’s income*” [11].

Not all non-commercial fishing can be described as purely “*recreational*”. In Europe, there are few examples of subsistence (non-commercial, but also not recreational) fisheries, but it could be argued that some regions or societies place an element of “*cultural*” or “*heritage*” value on traditional fishing activities, which are perceived as being separate to more obvious recreational activities. In France, for example, it is traditional to hand-pick shellfish from the beaches, and in many countries the use of a small number of pots to catch crabs or lobsters is often allowed outside regulations governing commercial

fisheries. A number of Atlantic salmon *Salmo salar* fisheries that are otherwise commercially unviable (e.g. Solway haaf nets, Welsh coracles) come into this category.

Some definitions of “recreational fishing” stipulate the types of gears and methods with which recreational fishing can be undertaken [10,11], while others focus on the motivations for the activity, e.g. “catching fish for fun” [12], “fishing primarily for recreation or enjoyment as opposed to fishing whose main purpose is the production of food and other products” [13], and “Fishing primarily ... for pleasure, amusement, relaxation, or home consumption” [11]. A summary of the definitions used to characterise recreational fisheries, recreational fishermen and their fishing activities is given in Table 1. In general, these definitions focus on some combination of motivation for undertaking the activity and type of gear used, though the wider set of economic activities surrounding the recreational fishery and recreational angling sectors have also been defined, by Roberts et al. [9] and EAA [10], respectively.

It may be pertinent at this juncture to point out that these various definitions reflect, to some extent, their purpose. That is, some authors may simply be trying to

distinguish between commercial and recreational activity in order to define the limits of legislation (and management), while others may be seeking to exclude some activities from recreational fishing for more philosophical reasons. Though there appears to be a general agreement within the above definitions, there is some confusion over the term “sports fishing”. In some countries, the terms “recreational angling” and “sports fishing” have different meanings, while in others they are used interchangeably [10]. In Nordic countries, “sports fishermen” are defined as “Recreational fishermen who mainly use rod and line” [14], while a US-based definition is that: “Sport fishing is a form of recreational fishing where the primary reward is the challenge of finding and catching the fish rather than the culinary or financial value of the fish’s flesh..., in virtually every case, the fishing is done with rod and reel rather than with nets or other aids” [15]. However, some definitions imply that “sports fishing” is a type of recreational fishing that is “more sportive, competition-oriented and technically complex” than general recreational or leisure fishing [16].

Catch and release is an increasingly common activity within recreational angling, and it is often a requirement of

Table 1
Definitions of ‘recreational fishing’

Term	Definition	Source
Recreational fisheries	<ul style="list-style-type: none"> All fishing activities not conducted for commercial fishing purposes Refers to and includes the fishery resources, fishermen and businesses providing needed goods and services. 	[8]
Recreational fishing	<ul style="list-style-type: none"> Fishing (i.e. an activity intended to catch fish or other aquatic organism) which is not deemed to be commercial fishing (i.e. catching and selling fish in order to support a livelihood, at least in part) Angling, the use of nets, longlines, hand-held lines from small boats or from the shore, and capture of fish by freedivers and sportdivers with spearguns, are various forms of fishing included in the definition of recreational fishing, provided that no sale of fish is involved. Harvesting fish for personal use, fun and challenge. Recreational fishing does not include sale of catch. Fishing primarily with hook and line for pleasure, amusement, relaxation or home consumption. If part or all of the catch is sold, the monetary returns constitute an insignificant part of the person’s income. 	[9] [10] [10] [9] [9] [11]
Angling	<ul style="list-style-type: none"> Angling is fishing with a hook and either rod and line or hand-held line and can be for both commercial and non-commercial purposes. (Note that this also includes the use of hook-less lures where fish capture depends on entanglement, e.g. billfish, squid <i>Loligo</i> spp., eels <i>Anguilla anguilla</i>.) 	[10]
Recreational angling	<ul style="list-style-type: none"> Non-commercial activity using hook and line Catch may be returned or retained to be consumed within the immediate social circle but not sold or bartered for other goods. Motivations for recreational angling may include challenge, achievement, sport, recreation, relaxation, social activity involving water, etc. Includes anglers, tackle shops and tackle manufacturers, bait suppliers, charter-boating, recreational boat builders and chandlery suppliers, marine operators and specialised angling media, angling tourism and other related businesses and organisations as well as the whole management environment (e.g. public agencies) to varying degrees dependent on, or directed at, recreational angling 	[10]
Recreational fishermen	<ul style="list-style-type: none"> Fisherman who fishes during leisure time and does not sell the catch 	[14]
Subsistence/household fisherman	<ul style="list-style-type: none"> Recreational fisherman who mainly uses gill nets or other static gear 	[14]
Sports fisherman	<ul style="list-style-type: none"> Recreational fisherman who mainly uses rod and line 	[14]

competitions that caught fish be released alive after weighing (or measuring in order to estimate weight), frequently after being tagged for research purposes. Though catch and release as a conservation aid is increasingly practiced with sea bass *Dicentrarchus labrax*, blue shark *Prionace glauca* and salmon, for example, some lobby groups and recreational fishermen are becoming increasingly sensitised to the ethical arguments relating to catch and release practices (e.g. [17]). In this context, the EAA [10] has argued that the term “sports fishing” has been used inappropriately to encompass non-rod and line forms of recreational fishing, e.g. spear fishing, which clearly has no connotations of catch and release.

Note that that, while there is no distinction in the definitions given in Table 1 in terms of the type of water body in which the activities are undertaken, the subject of the remainder of this paper is recreational fishing in the marine environment.

4. The legal definition and scope of sea fishing for recreation and sport in Europe—in contrast to commercial fishing

In the following summary review of Member States’ legislation, we have highlighted the most important regulations, authorisations or rights that pertain to marine recreational fishing, and acknowledge that it is not exhaustive. We have named in the text the principle legislation that relates to marine recreational fishing, and distinguishes it from commercial fishing, with relevant articles and sections indicated as, e.g., (art. 26) or (s. 8(7)). We have also tried to maintain consistent and understandable interpretations of the legal texts, though we appreciate that this might not capture the exact intended meaning. In particular, we interpret amateur as recreational (and include sport, unless a distinction is made) and professional as synonymous with commercial, chiefly to facilitate comparisons between countries. The information is presented for European Community countries that have marine territorial waters, in order moving southwest from the Baltic, down the North Sea and Atlantic coasts and eastwards through the Mediterranean. In most European Member States, both commercial and recreational fishing for salmon and migratory trout *Salmo trutta* are subject to special licensing arrangements in both marine and fresh waters, which are not dealt with here.

4.1. Finland

The management of fisheries resources in Finland is dependent on the property rights regime. Waters close to the coast (inside the 500 m depth line) are generally privately owned, with many administered collectively by village fishing associations. Waters beyond this are generally public and belong to the state.

Usually, the right to engage in fishing and manage fish stocks lies with the owner of the water, unless the Fishing Act 1982 (as amended) provides otherwise (s. 2(1)).

However, residents have the right to fish with a net for vendace *Coregonus albula*, smelt *Osmerus eperlanus*, herring *Clupea herangus* and sprat *Sprattus sprattus* in the sea within their municipality, including in non-public waters in the outer archipelago or facing open high seas (s. 8(2)). Persons residing in a village also have the right to fish with hooks (but not long lines) for domestic needs or recreation in sea areas falling within village boundaries, whether public or not, provided that this does not hinder or impede commercial fishing (s. 6(1)(2)).

Under the Fishing Decree 1116, 1982 (s. 34(1)), a licence would appear to be required to exercise the above rights in state-owned waters or fisheries, or to fish in areas owned by the state and situated within village boundaries in the sea (s. 33(1)). The licence is subject to a fee reflecting the water body, management being carried out, and the spatial scope and type of fishing being conducted (s. 35(2), s.37(1)). Angling, ice fishing and lure fishing may not be carried out closer than 50 m to nets or other fishing gear that is deployed and marked, unless with special authorisation (s. 38).

Apart from persons engaged in angling or ice fishing, and persons under 18 or over 65, anyone engaged in catching fish or crayfish (*Astacus* spp.) is required to pay a fishery fee to the state (s. 88(1),(3) Fishing Act 1982). Fishing with one rod, reel and lure in private waters attracts an annual lure-fishing fee, though lure fishing in public waters is exempt (s. 88(2)).

In Finland, the distinction between recreational and commercial fishing is made in terms of the sale of catch and the gear that can be used. A commercial fisher is defined as one who earns a substantial part (at least 30%) of his living from fishing and from the processing and sale of the catch (s. 6a(1) of Fishing Decree 1116, 1982 (as amended)). Under section 6(4), only commercial fishers may use a large bow net over 1.5 m high; a seine or trawl; gear which has more than 250 hooks per fishing unit; or nets set at the surface or drifting with a total length of over 900 m per fishing unit (s. (8a), as amended by Decree 232/1994).

4.2. Estonia

Under the Fishing Act 1995, consolidated and reprinted 23 Jan 2003, Estonians have a right to fish, free of charge, with one simple hand line on any body of water belonging to the state or a local government, subject to restrictions associated with fishing seasons, fishing areas and species of fish (s. 10). These restrictions hold for both recreational and commercial fishing (s. 17). Distinctions are drawn between line fishing, the catching of crayfish, recreational fishing, restricted fishing and commercial fishing, based on the fishing gear used (s. 6(2)).

The right to fish for recreation with more than one simple hand line requires a fee-paid fishing card, which entitles the holder to use spinning reels, trolling lines, pulling devices, bottom lines, unanchored trimmers, hand lines, spear guns, harpoons and gaffs (s. 11).

The right to fish commercially requires a fishing permit to be granted, either for a fishing vessel or a fisher (s. 13(3)), and the payment of a fee that is determined according to the characteristics of the fishing grounds, type of gear and fishing capacity (s. 15(1)). Commercial fishing gear is defined as long lines, gillnets and entangling nets, traps, seine nets and trawls (s. 13(2)).

4.3. Latvia

Under the Fishery Law 1995, as amended on 1 October 1997, 29 October 1999 and 17 February 2000, the distinction between recreational fishing and commercial fishing is in terms of the fishing gear (s. 17(1)), with the former defined as “activities performed for recreation or sport in order to catch fish with angling equipment” (s.1(7)), and the latter as “activities for the purpose of catching fish, utilising commercial fishing gear” (s.1(8)).

Fish resources within the territorial waters of the Republic of Latvia are the property of the state, and every inhabitant has the right to engage in recreational fishing in all marine waters of the Republic, unless expressly prohibited (s. 10(1)). However, if a catch limit or restriction on fishing gear is imposed for a specific body of water, especially in respect of valuable species, recreational fishing may require a special licence, which may be accompanied by a fee (s. 10(2), s. 25(1)). Statutory provision is also made for access for fishing along the shoreline, in the form of “towpaths”, at specified points along which fishers can set up fishing camps, dry off fishing equipment and undertake other fishing activities (s. 9(7)(3), s. 9(9)(3), s. 9(13)(14)).

People acquire the right to fish commercially in Latvia’s territorial waters and its economic zone via a fishing rights leasing agreement with the manager of the fish resources of particular waters (s. 7) and a fishing permit (licence) (s. 11(1), with limits set for number and kinds of vessels, quantity and type of fishing gear, and amount of catch (s. 11(3)).

4.4. Lithuania

While Lithuania’s territorial waters are state-owned, its fisheries are both state-owned and private (the Law of Fisheries 2000, art.4). Non-commercial fishing is distinguished from commercial fishing by being undertaken by “means of non-commercial fishing gear” (art. 2), and is split between recreational fishing and fishing activities for other purposes, e.g. scientific research, monitoring and fish breeding (art. 7, art. 2(3)). Recreational fishing is permitted in all fisheries, provided that fishing in these waters is not otherwise restricted, and this permission is extended to foreign nationals (art. 9(1)(2)).

Commercial fishing in marine waters of Lithuania requires a fishing permit that conveys a statutory right of access to specified areas, using specified fishing methods and subject to conditions for the restocking and conservation of fish stocks (art. 8, art. 12). There is no distinction

within this primary legislation between commercial or recreational fishers in the applicability of regulatory measures that provide for closed times or areas, the prohibition of fishing for certain species, allowable catches, authorised fishing gear and the quantity thereof, and minimum landing sizes (art. 11).

4.5. Poland

Under the Law on Fisheries 18 January 1996, recreational fishing is included within the definition of sea fisheries, along with purchasing of marine organisms and the exploitation and conservation of marine living resources (art. 2). As part of this definition, recreational fishing in the Polish sea area is essentially the preserve of natural persons resident in Poland (art. 4(1)), though foreign entities are permitted to take part (art. 4(4)).

A licence is required to participate in recreational fishing, for which a fee is charged and which defines the permitted methods (art. 24(4)). Unless the legal rules decide otherwise, commercial fishing also requires a fishing licence (art. 17, art. 18(1)).

4.6. Sweden

Coastal fisheries in Sweden are state-owned, except those operating within 300 m of the coast and islands, which is private property and where access by the public to fish requires the consent of the owner [18,19]. The Swedish Fisheries Act, “Fiskelag”, 1993/787 as amended defines the rights to fisheries in its sea territory and economic zone (ss 8–11), prescribes regulation-making powers (ss 19–25) and (ss 30–32) pertains to commercial fishing licences [20].

Recreational fishing in Sweden takes two forms: subsistence fishing that involves equipment such as nets, fish-traps, creels, cages and long lines, with the catch primarily used within the household; and sport-fishing that involves fishing with a rod, hook and line for recreational purposes with the catch used within the household. Neither activity constitutes part of the Swedish right of public access, although sport fishing is freely permitted along the coastline [21], and subsistence fishing is freely permitted along the west and south coast of Sweden. In other waters, recreational fishing requires a licence or other forms of authorisation [18].

Sport fishing is prohibited closer than 100 m to stationary commercial fishing equipment, while subsistence fishing is generally permitted in public waters beyond 300 m from the shore and waters surrounding islands of less than 100 m in length [18]. National technical measures such as mesh size and seasonal and area closures govern both commercial and recreational fishing.

Commercial sea fishing requires the vessel to be licensed and at least one fisher per vessel to hold a personal fishing licence, being generally free to use any legally approved type of gear and in any quantity. Without such a licence, there are restrictions on the amount and type of gear that can be used.

4.7. Denmark

In Denmark, the Fisheries Act 1999 (as amended) makes provision for the management of fisheries and provides for the possibilities of recreational fishing (s.1). Chapter 4 specifies the different types of fisheries and fishing rights holders, and Chapters 9 and 12 pertain specifically to recreational fishers.

Recreational fishing in Danish territorial waters requires a fee-paid state licence, which permits the holder to use rod and reel, hook, line and sinker, but otherwise to fish free of charge. Persons under 18 or over 65 years of age are exempt. It is prohibited for recreational fishers to fish within 75 m of any nets, fish traps, etc., or troll a line behind a boat closer than 100 m from the shoreline, or to use more than two rods per fisher or a total of four rods from any boat [22,23].

Under the Fisheries Act, recreational fishers are required to comply with minimum fish sizes, and have closed spawning-related seasons specified for whitefish *Coregonus* spp., plaice *Pleuronectes platessa*, flounder *Platichthys flesus* and blenny *Zoarces viviparous*. All non-commercial fishers and any unregistered fishers (anglers and net and trap fishers) are prohibited from selling any of their catch [23].

The Danish management of commercial fisheries regulates access and fleet capacity determined by tonnage and engine power (Chapter 7). In order to fish commercially, a person must be an authorised full-time/part-time fisher and the vessel must be registered as a fishing vessel and granted a licence (s. 36) [24].

4.8. Germany

Both the German Federal and State Governments having legislative responsibilities for sea fishing under the Basic Law of the Federal Republic of Germany (Grundgesetz, GG) 1949, as amended, art. 74. The principal distinction between recreational fishers and commercial fishers is that the former are not allowed to sell their catch. Both are required to comply with effort regulations, minimum sizes, closed seasons, etc. that may be supplemented by additional provisions for recreational fishers.

There are three German States with sea fishing opportunities along the North Sea and Baltic coasts [25]. In Mecklenburg-Vorpommern, the principle legislation is the Fischereischiegesetz für das Land Mecklenburg-Vorpommern 1992, in which anyone over 10 years old who undertakes fishing requires a fishing ticket (s. 1, s. 2, s. 3), which lasts for the applicant's lifetime and can be exchanged with fishing tickets of other states. In addition, a recreational fisher is also required to pay a fishing duty (s. 5).

In Schleswig-Holstein, the determining legislation is Fischereigesetz für das Land Schleswig-Holstein 1996, as amended. Under this legislation, fishing is free in territorial waters with a hand-held fishing rod or drop net up to 1 m²,

otherwise anyone over 12 years old requires a valid fishing ticket (s. 26), with the prerequisite of successfully completing a fishing ticket examination (s. 27). Again, valid fishing tickets from other states of the Federal Republic are recognised and provision is made for tourism (s. 26).

In Niedersachsen, the principle law is Niedersächsisches Fischereigesetz 1978 as amended, and fishing for fish and crabs in territorial waters is free (s. 16(1)), though a permit is required to take shellfish (s. 17). However, a fishing ticket is required, for which the applicant needs to be at least 14 years old (s. 59) and have passed a fishing ticket examination or the examination of a commercial fisher. Unlike the other two States, where they may fish unaccompanied, tourists are required to fish alongside a licensed fisher.

Anyone who wishes to fish commercially for species that are subject to EU effort limitation (virtually all commercially caught species) requires a licence, of which there are two forms. A general fishing licence can be used for all types of fishery, and allows fishing without restrictions on species for which the national quota (set on the basis of the Sea Fisheries Act 1984 (s. 3), as amended) is unlikely to be exhausted in a short time period. Individual fishing licences are used where the national species' quota allocation is too small to permit unlimited fishing (as in the Baltic fisheries for cod *Gadus morhua* and saithe *Pollachius virens*) and, as a consequence, have an individual catch limit attached.

4.9. Netherlands

In the Netherlands, the Fisheries Act 1963 as consolidated on the 11 February 2005 including amendments provides the primary legislation governing marine fisheries, both commercial and recreational.

Recreational fishers are defined principally as individuals who fish with one or two rods or a bobber—a hook-less line to which is attached a number of worms. Gill nets and fyke nets, for example, are not considered to be recreational-fishing gear. Marine recreational fishing requires no licence or permit, and neither is a permit required by anyone using a single rod and a designated form of bait to fish in public waterways (defined as waters regularly used for commercial traffic), subject to stipulated exceptions including certain open harbours and estuaries [26].

Recreational fishers, as with commercial fishers, are subject to a range of management measures such as closed seasons, protected fish species and size restrictions (art. 2).

4.10. Belgium

The main legal provisions governing Belgian fisheries include the Fishing Law 1891, as amended; the Delegation Law 1957, as amended; and the Law of the Belgian Fisheries Zone 1978, as amended [8].

A licence is not required to fish recreationally at sea, and anglers can cast a line free of charge from jetties, the beach and within harbour basins. During the main holiday

season, there are specified beach zones set aside for shore anglers [27]. Since 2001, there has been a ban on recreational beach fishing using gill nets below the low water line to protect marine mammals, although recreational fishers can use other types of net on the beach [28].

Commercial fishers require a vessel licence under a restrictive licensing scheme. While national legislation imposes restrictions on the types of gear that can be used and sets minimum mesh sizes, to protect juvenile and spawning stocks, non-target species and habitats, the range of gears available to commercial fishers is far more comprehensive than for recreational fishers [29].

4.11. United Kingdom

The legal framework governing commercial and recreational sea fishing in the UK is a composite of common law and statute. The Sea Fisheries (Shellfish) Act 1967, s.1 as amended, Sea Fisheries Act 1969, s.15(1),(2) and Sea Fisheries Regulation (Scotland) Act 1895, s.10 provide a right for the public to fish in tidal waters and the sea up to mean high water of ordinary tides, except in certain areas where exclusive proprietary rights have been acquired (mainly in respect of shellfisheries) or where the public's common law rights have been restricted by Parliament. Thus, the public may lay lines, draw nets and adopt any other ordinary mode of fishing, provided that fishing is exercised in accordance with statute law. The right also extends to the right to take shellfish, except within the area of a several/private shellfishery. The right incorporates both recreational and commercial fishing, the distinction being that the latter requires a licence to "fish for profit", which includes the sale of any catch. The catch from recreational sea fishing cannot be sold.

No licence is required for recreational sea fishing in England and Wales or for the collection of bait for personal use (in most cases), though a permit from the relevant harbour authority may also be required to fish off some piers and jetties. Recreational fishers are obliged to comply with minimum landing sizes, fishing seasons and gear design specifications set for fisheries as a whole under EU, national (Sea Fisheries Regulation Act 1966) and local byelaws (Sea Fisheries (Byelaws) Regulations 1985: 1785, and Sea Fish (Conservation) Act 1967 as amended by the Fisheries Act 1981), though they can fish for most species unrestricted. However, it is illegal to catch or land Allis shad (*Alosa alosa*), and boat fishers (recreational and commercial alike) are subject to bans on landings of TAC species (e.g. cod) where implemented, and are required to comply with restrictions on fishing for sea bass in bass nursery areas (The Bass (Specified Areas) (Prohibition of Fishing) (Variation) Order 1999). Shore fishing is exempt from the above provisions for cod and bass.

Legal provisions for recreational sea fishing in Northern Ireland and Scotland are very similar to those in the rest of the UK, in that a licence is not required as long as the catch is not presented for sale [30].

All UK-registered vessels or British-owned vessels fishing commercially for sea fish are required to be licensed (Sea Fish (Conservation) Act 1967, s. 4 as substituted by the Fisheries Limits Act 1976, s. 3), unless the vessel is used wholly for conveying recreational anglers, will only fish within 12 nmiles of the Isles of Man, Jersey or Guernsey (to which separate licensing requirements apply), or is 10 m or less in length and without an engine.

As in many Member States, the licence can be subject to conditions such as where and in what manner the fish are to be landed, the use to which they may be put and restrictions on time spent at sea. Each licence has a category that identifies the stocks that can be targeted and associated vessel quotas [31]. Special licences or endorsements are required for certain fisheries: for example, using pots or nets for lobster *Homarus gammarus*, crawfish *Palinurus elephas*, edible crab *Cancer pagarus*, velvet crab *Liocarcinus puber*, spider crab *Maia squinado* or green crab *Carcinus maenas*. Without an endorsement, a vessel is not permitted to retain onboard or land more than five lobsters or crawfish and 25 crabs a day from pots or nets or over 5% by weight of total catch caught by towed gear [32].

4.12. Republic of Ireland

Under the Fisheries (Consolidation) Act 1959 as amended, there are specific regulatory provisions for recreational sea fisheries [33]. It is prohibited to take or kill common *Dipturus batis*, white *Rostroraja alba* or long-nosed *Dipturus oxyrinchus* skate, and byelaws (s. 9) impose a minimum size limit for sea bass of 40 cm, a daily bag limit of 2 bass per angler, a closed season from 15 May to 15 June (Bass Fishing Conservation Bye-Law, renewed annually) and prohibition of sale (Bass (restriction on Sale) Order, renewed annually).

Any vessel wishing to undertake commercial sea fishing must be registered under the Merchant Shipping (Registry, Lettering and Numbering of Fishing Boats) Regulations 2005 and also requires a licence to fish for all species (s. 4 of the Fisheries Amendment Act 2003). Boat licence holders are also subject to catch quota management regulations, plus a range of technical management measures, including minimum landing sizes, mesh sizes, seasonal and area closures and by-catch limits, varying by species (s. 4) [34].

4.13. France

Recreational fishing is defined (art. 1 of Decree No. 90-618 as amended by art. 5 of Decree 99-1163) as fishing for the exclusive consumption by the fisher and his family of the catch, which cannot be sold or exposed for sale. It can be undertaken from a boat, from the shoreline, or by diving. Registration is only required for underwater recreational fishing (art. 4(II)), and only where an individual has not obtained a licence from a certified sport federation to undertake the activity.

Recreational fishers are bound by the same minimum landing sizes, prohibited species and fishing areas and closed seasons as are commercial fishers (art. 2). Articles 2 and 5 also provide for measures specific to recreational fishers, which include restrictions on the type and quantity of gear that can be used by an individual, the species caught, daily bag limits and exclusion zones around artificial structures.

All French vessels require a licence for commercial fishing (art. 3.I of Decree of 9 January 1852), while commercial fishing without a vessel also requires authorisation from the local Prefect to use fixed gears (Decree No. 83-228 of 1983) and shore fishers require a permit or commercial licence (Decree No. 2001-426 of 2001).

4.14. Spain

All fishing activity within Spanish waters is subject to authorisation, and the distinction between commercial and recreational fishing is preserved in licensing arrangements and in the rights conferred. Recreational fishing is governed by a very comprehensive system and requires an individual licence for fishing from the shore or from a boat near the coast (art. 3 of Ministerial Order, 26/2/1999) with special authorisation for certain species (art. 36 of Law No. 3/2001 “Marine Fishing of the State”). Angling in estuaries requires an annual angling licence.

Recreational fishing boats also require a permit (art. 37 of Law No. 3/2001) that may specify an annual total allowable catch. With the exception of certain species, recreational fishers are limited to a daily catch per licence of 5 kg and, if a boat has more than five licensees onboard, to 25 kg per vessel (art. 4). The maximum catch of albacore *Thunnus alalunga*, bigeye tuna *T. obesus* and hake *Merluccius merluccius* is five fish per day per licence, with a maximum of 20 fish permitted per boat per day. A maximum catch of one fish per day per licence and a maximum of four per boat per day are stipulated (as detailed in Annex III of the Ministerial Order) for bluefin tuna *T. thynnus*, swordfish *Xiphias gladiator*, marlin *Makaira nigricans*, and sailfish *Istiophorus albicans* (art. 4(3)). Catches of species listed in Annex III of the Ministerial Order also require the licence holder to complete a landing declaration (art. 8).

Recreational fishing from a boat or the shore can only be with lines or equipment with a maximum of six hooks or two pots per licence (art. 6). Underwater fishing can only be undertaken during daylight hours (art. 11(k)), using manual harpoons or harpoons driven by mechanical means, with the diver marked by buoyage at the surface (art. 7). It is prohibited to sell any of the catch, interfere with or use commercial fishing gear, or use lights or other means to aggregate fish (art. 11).

Any person wishing to engage in commercial fishing in Spanish waters is required to be registered, and to have acquired a navigation/fishing certificate (art. 44 of Law No.3/2001). The granting of a licence confers a general

right for a commercial fishing vessel to fish within Spanish waters, though the vessel must be included in the record of fishing vessels (art. 23). The collection of shellfish is also subject to a commercial permit, and commercial fishing activities on or from the shore are also subject to a licensing system.

Fisheries regulations (art. 9 of Law No.3/2001) provide for allowable catches for a species or group of species, fishing zones, periods, methods or gears, vessels or types of vessels, which extend potentially to recreational fishing boats, and minimum landing sizes, which apply to most species and to both commercial and recreational fishers.

4.15. Portugal

Leisure and sport fishing are prescribed in Decree No. 246/2000 as fishing from the land or boat or underwater without commercial ends and utilising manual means, with any boat used being registered for recreation or marine tourism activities (arts. 2 and 8). No part of the catch is permitted to be displayed for sale or to be sold (art. 7). Fishing for leisure in turn is defined as that purely for recreation (art. 3), while sports fishing is related to organised competitions (art. 4). Underwater fishing can only be undertaken in a recreational context by snorkelling and using hand-delivered fishing instruments (art. 6), while a maximum of 3 hooks per line and 3 lines or rods per fisher may be used in recreational fishing (art. 9). The use of other gear does not constitute leisure or sport fishing (art. 9(3)). There is also a range of management stipulations (art. 10) with which recreational fishers must also comply, concerning area closures, size limits, catch limits per species and fishing within protected areas.

The use of most commercial fishing methods requires both prior authorisation and a licence, irrespective of whether a vessel is used (art. 74). Technical management measures include minimum sizes for fish caught (art. 48) and mesh sizes in nets (art. 50), and restrictions on fishing in certain areas and seasons and on the utilisation of certain gears. Articles 3–10 of Decree No. 3/87 as amended by Decree No. 7/2000 define the gears that are generally permitted for use by commercial fishers in maritime waters, including lines, traps, towed gear and various forms of net. Gear-specific management provisions include a ban on trawling within 6 miles of the coast and a ban on the use of trammel and gill nets within a specified distance of the coast.

4.16. Italy

Prior to a recent review (Legislative Decree no. 153/2004 art. 1), no authorisation was required to engage in recreational fishing within Italian waters, subject to time, area and gear restrictions (Presidential Decree No. 1639/1968). Individuals involved in sporting competitions are required to be the members of a national sport fishing federation and to report catch data. Recreational fishers

are only allowed to use lines and none of the other gears designated for commercial fishing (detailed in Ministerial Decree of 26th July 1996). There is a daily bag limit of 5 kg, and 3 kg for mussels (Ministerial Decree of 10th April 1997).

Italian fishing vessels require a fee-paid licence to fish commercially (Legislative Decrees No. 153/2004 (art. 4) and No. 154/2004 (art. 12)), and each fishing vessel is only authorised to use a restricted number of the 12 categories of recognised and permitted fishing gears, as specified on the licence (art. 11, Ministerial Decree of 26 July 1995). Similarly, no person may engage in commercial underwater fishing without prior authorisation.

4.17. *Malta*

Under the Fisheries Conservation and Management Act 2001, a commercial fisher is defined as “a person who is engaged—in fishing for sale—and—relies on his fishing activities for the whole or part of his income” (art. 2). Recreational fishing is not comparably defined. To fish commercially within the territorial waters of Malta, a vessel is required to be entered on the record of fishing vessels (arts. 7 and 8) that has four categories (Schedule II, Fishing Vessels Regulations 2004): full-time and part-time commercial fishing vessels, auxiliary vessels used in fishing operations, and a fourth category of non-commercial fishing vessels, i.e. recreational (s. 8(b)).

All vessels being used for fishing (not limited to commercial fishing vessels) are required to be licensed, with vessels of 6 m or over also registered under the Merchant Shipping Act (art. 3(a) (b)). No fishing vessel of less than 6 m in length is permitted to fish beyond 12 nmiles from the coast (art. 10), and vessels of 10 m or over used for either commercial or recreational fishing must also keep a logbook of fishing activities and catches, where the catch of any one species is larger than 50 kg (art. 12). However, there is no distinction in primary legislation between the gears available to be used by commercial and recreational fishers in Malta.

4.18. *Slovenia*

Within Slovenia, the Marine Fisheries Act 2002 is the principle piece of legislation distinguishing between commercial and recreational fishing, the latter falling within the category of non-commercial fishing, along with scientific monitoring and research activities (art. 27(1)). The key distinguishing features are that recreational fishing is prohibited from offering any of its catch to the market (art. 30), and that a vessel and fishing gear intended for commercial fishing are defined (art. 4).

Recreational fishing may be performed from the shore, for which no permission is required (art. 28(7)), or from a vessel using permitted fishing equipment to a limited daily quantity of catch (art. 28(1)(6)), for which a fee-paid daily or weekly recreational fishing ticket, or an annual non-

commercial fishing permit, is required (arts. 27(2)(3), 28(5), 29(7)). A marine sports fisher is required to be a member of a federation of marine sports fishing societies, which is responsible for issuing recreational fishing tickets (art. 28(3)(4)). Recreational fishers using an underwater gun may not fish without a permit, nor between sunset and sunrise, nor in areas in which fishing is prohibited (art. 28).

Commercial fishing vessels are required to be in possession of a commercial fishing permit (art. 14(1)), to register in the fishing vessels register (art. 14) and, for vessels of 10 m total length or over, to submit daily reports on commercial fishing undertaken (art. 15). Vessels under 10 m in length and fishing exclusively in territorial waters do not require a special commercial fishing permit (art. 24(3)).

The Act stipulates space- and time-related fishing restrictions on both recreational and commercial fishers (art. 10), provisions for the protection of juvenile fishes (art. 9), and what gears and methods of fishing are prohibited, including surrounding nets or seine nets deployed so as to enable fishing from the shore, and dredges (art. 7). The fishing gears permitted for each category of fishers are specified in the respective fishing permits or ticket (art. 8).

4.19. *Greece*

Within Greek waters, the Fishing Code (Law Decree 420/1970), as amended through Law Decrees 1740/87 and 2040/92, regulates all fisheries issues, while recreational fisheries are regulated under Presidential Order No. 373 of 1985, as amended by Ministerial Joint Decree No. 255844/1990. All persons fishing by boat for recreational purposes require individual and boat fishing licences, though those fishing from the shore do not need a licence. Anyone under 18 years of age also requires signed permission from his or her parents or guardians. When recreational fishing, it is prohibition to fish during the night, use any source of light (unless spear-fishing), sell any fish caught and use more than one rod. There are also restrictions on the size and total weight of the fish that a recreational fisher is permitted to retain.

A vessel licence is required for commercial fishing under Royal Decree No. 666 of 1966 (art. 1), and commercial activities not involving a vessel are only permitted for corals, shells and sponges. Management measures include provisions pertaining to fishing seasons and areas for bottom trawling, purse seining, boat seining and dredging, and specifications as to the size and type of gears that can be used (Council Regulation 1626/94).

4.20. *Republic of cyprus*

No licence is required for sea angling in Cyprus, or for fishing with hand lines, trolling or spear fishing without the use of diving equipment. In contrast, the use of aqualungs when spear fishing, fishing with nets, long lines and traps,

fishing at night with spear guns and any kind of commercial fishing by Cyprus-flagged vessels require a licence. The licence holders are restricted in the equipment that can be used, days allowed to be fished and, in certain cases, an allowable catch per fishing outing (Fisheries Law, Cap. 135 and Fisheries Regulations 1990–1994 as amended by Law No. 102(I)/2000 and Regulations P.I. 194/2000).

The amended Law also provides for regulations for the management of fish stocks and fishing activities that include the specification of closed areas and seasons, minimum size of fish, gears and methods of fishing and nets and meshes, and these rules can encompass recreational fishers as well as commercial fishers.

5. Discussion

The European Union is a major player in the regulation of commercial sea fisheries, through the Common Fisheries Policy and associated Council Regulations, but the EU Council has not to-date introduced regulations pertaining specifically to recreational fisheries. While European legislation may regulate the activities of recreational as well as commercial fishers through, for example, minimum

landing sizes, prohibited species, closed seasons, closed areas and gear specifications, it is evident that the distinction between commercial and recreational fishers, and management of the latter, is currently the sole preserve of national and regional legislation.

Recreational fishing appears to be a growing activity within many Member States, and concerns have been raised about its influence on fish stocks. Correspondingly, there is a growing body of regulation at the national level governing marine recreational fishing, albeit exerting far less control than is evident for recreational fishing within inland freshwaters. The extent and nature of any regulatory regime introduced is, however, a reflection of the traditional rights enjoyed by the public for sea fisheries in the different countries, and it is important to understand these national perspectives in relation to both measuring and managing recreational fishing activity. In general, there are three forms of access arrangements within the regulatory regimes covered, albeit not demonstrated for all countries, pertaining to individual fishers, recreational fishing boats and divers. Underwater fishing is often dealt with separately by legislators and may be subject to specific sets of rules that are not always as detailed in legislation that addresses other forms of recreational fishing.

Table 2

The ownership, access, legal distinctions and regulations that apply to each European member state in relation to marine recreational fishing (MRF)

Country	Ownership of coastal waters/fisheries	Public right to fish	Legal distinction between MRF and commercial fishing	Licence required for MRF	Regulations that distinguish between MRF categories	Catch/bag limits on MRF	Gear restrictions for MRF
Finland	Private (2–500 m depth)	Yes (property rights)	Sale of catch/gear (angling)	Yes (part)	Yes	?	Yes
Estonia	Public	Yes	No	Yes (fishing card)	Not specific	No	Yes
Latvia	State	Yes	Gear	Yes(part)	Yes	Yes	Yes
Lithuania	State/private	Yes	Gear	Yes (permit)	No	No	Yes
Poland	State	Yes	Licence	Yes	No	No	No
Sweden	Private (to 300 m depth)	No	Yes	Yes (part)	Yes		Yes
Denmark	Public, unless private land	Yes, but restrictions	Gear	Yes	No	No	Yes
Germany	State	Yes	Sale of catch	Yes (ticket)	No	No	Yes
Netherlands		Yes	Gear	No	Yes	No	Yes
Belgium			Gear	No			
UK	State	Yes	Sale of catch	No	No	Yes (crustaceans)	Yes
Rep. Ireland	State	Yes	No (except sea bass)	No	No	Yes (sea bass)	Yes (sea bass)
France			Sale of catch	Yes (vessel)	Yes	Yes	Yes, as commercial
Spain	State		Licence conditions/sale of catch	Yes	Yes	Yes	Yes
Portugal	State	Yes	Sale of catch/gear	Yes	Yes	Yes	Yes
Italy	State	Yes	No/gear	No	Yes	Yes	Yes
Malta	State	Yes	Sale of catch	No	No		Yes
Slovenia	State		Sale of catch/gear	Yes	Yes	Yes	Yes
Greece		Yes	No	Yes (boat only)	Yes	Yes (tuna only)	Yes
Cyprus			Gear	Yes (not angling)	Yes	Yes (some)	Yes (spear fishing)

The distinctions between recreational and commercial fishery activities in the case-study countries are summarised in Table 2. Some countries provide explicit definitions, though most (14 of the 20) define the two activities implicitly by the licences they need to obtain, the type and amount of gear they can use or carry onboard a vessel (all but one have gear restrictions for recreational fishing), and/or the size of the catch they can take (9 of 20, mainly in southern Europe). In eight countries, the main distinction lies in recreational fishers being prohibited from selling any catch, and they are generally not obliged to report their catches, although Italy provides an exception to the latter. In 11 countries, there is a distinction between recreational fisheries where commercial fishing gear is used chiefly for home consumption and their commercial (catching for sale and profit) counterparts.

This review has revealed a wide disparity between countries where recreational marine fishing is recognised in tradition and legislation as an activity to be managed alongside commercial fishing (e.g. in Sweden, Germany, Spain and Slovenia), and those where it is a common right largely unfettered by regulation (the Netherlands, UK). It is unlikely, therefore, that evaluation of participation in and the socio-economic importance of marine recreational fishing can be measured on the same terms across Europe, or that attempts to legislate for the benefit and development of recreational fishing will be equally successful in each country. If the European Commission intends to address the perceived problem of increasing tension between inshore commercial fishermen and recreational fisheries that are competing for space and resources, as suggested by the European Parliament's Committee on Fisheries (A6-0141/2006), it is important to recognise this, and to develop a common approach (across Member States) based on unambiguous criteria.

From this review, we suggest that recreational fishing is:

- not deemed to be commercial fishing, in that recreational fishers do not sell the fish they catch;
- is not undertaken for predominantly subsistence purposes;
- is not undertaken for primarily cultural or heritage purposes, though these may provide justification for continuance of activities not deemed to be commercial;
- is often synonymous with angling (the activity of catching or attempting to catch fish on hooks, principally by rod and line or hand-held line), but may include the use of small boats equipped with nets, longlines or pots to catch fish or crustaceans, capture of fish by divers with spearguns, and hand-gathering of shellfish from the beach or shore.

This definition clearly distinguishes recreational fishing from commercial or subsistence fishing, but goes beyond the definition that have been adopted by angling-orientated sources (e.g. [6,10]). This is necessary because, for management purposes, it is important to include all non-commercial

fishing activities in legislation designed to control and limit the impact of recreational fishing activities on marine resources and their spatial access. If the need arises, distinguishing between angling, spear fishing and other forms of non-commercial fishing can be made within the relevant (national) legislation.

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