



## Review of the EU small-scale driftnet fisheries

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### ARTICLE INFO

**Keywords:**  
Driftnet fisheries  
SSD  
Environmental impact  
European driftnet regime

### ABSTRACT

The aim of the present study is to analyse and review the information on small-scale driftnets (SSDs), including fishing capacity and composition of catches that has been published in the literature. The study also assesses also the possible interaction of SSDs on the ecosystem, including both protected and non-protected species. Altogether, 45 active SSDs operating in EU waters were identified in 9 Member States (Bulgaria, France, Italy, Poland, Portugal, Romania, Spain, Sweden, and UK), accounting for a total number of about 3640 vessels in total. The 45 fisheries target over 20 different species including marine species and anadromous and catadromous species. The EU driftnet regime, as stipulated by the Regulation (EC) No 1239/98, would benefit from revision of the definition of 'driftnet' to improve clarity in the scope of the definition and to ensure that: a) inland driftnet fisheries are covered by the EU driftnet regime; b) the definition of driftnets applies to all drifting nets; and c) the one-net rule – no other gears allowed on board when fishing with driftnets – becomes the mainstay of a regime that can be enforced with a high degree of success. The main objectives of the EU driftnet regime with regard to current SSD fisheries should be to maintain the ban on large-scale driftnet fisheries because of their non-selective nature, and to support actions towards the monitoring and mitigation of the impacts of driftnet fisheries on protected species.

### 1. Introduction

Since June 1992, keeping on board or using of driftnets whose individual or total size exceeds 2.5 km is prohibited in EU waters (except in the Baltic Sea, the Belts and the Sound). The ban also involves EU vessels outside EU waters [1]. However, enforcement of the ban has met with a number of practical problems (e.g. use of driftnets by fishermen claiming they are bottom-set gillnets; low risk of detection; cooperative behaviour among vessels) and has not stopped the expansion of large-scale pelagic driftnets. Use of illegal driftnets and incidental catch of protected species has continued to be reported in different EU regions, particularly in the Mediterranean [2]. For the purpose of this study, species referred to as 'protected' are those included in Annex II or IV of the EC Habitats Directive [3], or Annex I of the EC Birds Directive [4].

In 2002, the EU banned all driftnets, regardless of length, when intended to capture a number of pelagic species including tuna, swordfish, billfish, sharks and cephalopods [5]. In addition, to address the serious threat posed by salmon driftnet fisheries to depleted harbour porpoise (*Phocoena phocoena relicta*) populations [6,7], all types of driftnets were also been banned on board and for fishing in the Baltic Sea as of 1 January 2008 [8].

Finally, EU vessels are allowed to keep on board and use small-scale

driftnets (SSDs), except in the Baltic, provided that: a) their individual or total length is  $\leq 2.5$  km; b) they are not intended to capture unauthorised species listed in the Annex VIII of Regulation (EC) 1239/98 [5], hereinafter designated as unauthorised species, and; c) any unauthorised species that are caught in driftnets are not landed.

Specifically, Art. 8(2) of [9] prohibits the catching of most unauthorised species with bottom-set gillnets in the Mediterranean, thus closing a loophole that would have made it possible to use illegal driftnets under the pretence of their being bottom-set gillnets. Further technical provisions are envisaged for different types of bottom-set gillnet (e.g. maximum length, height, and twine thickness) to facilitate controls.

Council Regulation [10] provides a definition of 'driftnet' to support the other regulations. Despite this legal framework, difficulties in applying the EU driftnet rules are still being reported, particularly in the Mediterranean. These issues have also acquired a wider international dimension. To overcome enforcement problems, some non-governmental organizations (NGOs) have repeatedly called for a ban on all driftnet fisheries [2,11,12]. Compliance problems within the EU have been addressed following European Court of Justice (ECJ) rulings against France (C-556/07 and C-479/07) and Italy (C-249/08), which had failed to exert effective control and to enforce driftnet rules. Changes in national regulations by the relevant Member States

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following these rulings, and monitoring by the EC, have resulted in greater compliance. For example, France now authorises only a mesh size under 50 mm in the Mediterranean, within 2 nm of the coast. Italy has recently adopted national legislation stipulating a one-net rule (i.e. no fishing gear other than the driftnet can be carried on board) and authorising SSDs with a maximum mesh size of 100 mm, only within 3 nm miles of the coast. Spain is controlling its “*Xeito*” fisheries by technical measures laid down in regional regulations, allowing only mesh sizes in the 23–40 mm range and a maximum authorised total net length of 1000 m per vessel and day. Data from the EU fishing fleet register indicate that there is still a large number of EU vessels involved in SSD fisheries in coastal areas, from the Black Sea to the North Sea (except the Baltic Sea). However, some driftnet fisheries may interact with protected species (e.g. marine mammals, sea turtles) or unauthorised species, probably because EU rules may be relatively easy to circumvent. Furthermore, the effectiveness of controls against illegal drift-netting can be adversely affected by the current legal framework, while placing a heavy burden, in terms of human and technical resources, on national control bodies. This regards in particular countries with a large number of small-scale artisanal fishing vessels deployed along an extensive coastline with a large number of potential landing places including islands (e.g. the Mediterranean).

The present paper used information on driftnets, including fishing capacity, composition of catches and environmental impact that has been published by [13–15]. Fisheries were attributed unique reference numbers (ID) to permit cross-referencing across the paper (see Appendix A, Table A1) and then summarised by target species and region in Table 1.

The aim of the present study is to analyse and review the literature to find information on SSDs, taking into account the scientific evidence of the damage that driftnets may cause to the environment in the different EU regions. The analysis draws upon the existing literature on: i) the main characteristics of driftnets in EU fisheries; ii) the number of vessels involved in this type of fisheries; and iii) the number of people involved in the use of driftnets both in the fisheries sector and in processing industries. After assessing the possible impacts of SSDs on the ecosystem, including both protected and non-protected species, the study provides recommendations for policymakers to base their decisions on the circumstances in which driftnet use is not acceptable. It also examines the effectiveness of a possible ban making it illegal to keep other fishing gear (e.g. longlines) on board to circumvent controls.

The study is divided into four main paragraphs. After a general

description of active driftnet fisheries, with particular emphasis on the capture method and the main technical features of SSDs, it assesses SSD impact by evaluating which fisheries are most likely to interact with protected and unauthorised species. The last two paragraphs discuss the Council Regulation (EC) No 894/97 [10], as amended by Regulation (EC) No 1239/98 [5], hereinafter designated as EU driftnet regime, and the four policy options proposed by DG-MARE to revise the current EU driftnet regime and mitigate the negative impact of driftnet fisheries on the environment, for consideration by policy-makers.

Table 2 illustrates the statistics of active vessels taken from different official sources at the EU and national level. There are discrepancies between data extracted from the EU fleet register and the information provided by national administrative bodies regarding gear or vessel licensing. The main reasons for such differences are administrative: the fleet register only reports the first two gears a vessel is registered for, while national administrations may grant licences authorising up to five gears; this entails that the number of licences granted by national administrations may be higher than the number of vessels recorded in the register.

In addition, for some Member States, the register may report changes in important data, such as a new vessel owner or registration port. Furthermore, a particular driftnet fishery may be completely closed, but the information held in the register may still report the gear code GND for months or years, as long as the vessel remains active in the same fishing port with the same owner.

The majority of fisheries identified are seasonal, with fleets comprised of polyvalent vessels. For most fishermen employing driftnets this represents only a few months of fishing in any year, and some use them for less than a month. Accurate landings data from driftnet fisheries are not available except for the UK, which severely hampers evaluation of the economic importance of the gear at the EU level. In Italy, the data collected by [14] have contributed to a greater understanding of the importance of the gear for the fisheries identified there.

For 90/99 driftnet vessels identified for which data have been provided, the driftnet accounts for almost 77% of the volume landed and for 68% of the value generated. When these indicators were examined by fishery, the vessels deploying “*menaide*” close to Catania were found to use almost exclusively a driftnet, which accounted for 91% of the quantity and of the value landed by these vessels. At the other end of the spectrum, the other two “*menaide*”

**Table 1**

Summary of current driftnet fisheries, by region and target species. ID Reference numbers identify the fisheries detailed in Table A1.

FAO ISO-3 code	Primary target species	Latin name	Baltic Sea	Black Sea	Mediterranean	North Sea	NE Atlantic
BON	Atlantic bonito	<i>Sarda sarda</i>		29			
AMB	Greater amberjack	<i>Seriola dumerili</i>			35		
ANE	Anchovy	<i>Engraulis encrasicolus</i>			33, 36, 38		
COD	Atlantic cod	<i>Gadus morhua</i>				28	
HER	Atlantic herring	<i>Clupea harengus</i>				3	1, 2
BLU	Bluefish	<i>Pomatomus saltatrix</i>			37		
SOL	Common sole	<i>Solea solea</i>				24	25
PIL	European pilchard	<i>Sardina pilchardus</i>			43, 48		26, 27, 47
LAS	Lamprey nei	<i>Petromyzontidae</i>					8, 8.2, 8.3, 44
MGR	Meagre	<i>Argyrosomus regius</i>					15, 15.2
SAL, TRS	Atlantic salmon, Sea trout	<i>Salmo salar</i> , <i>Salmo trutta</i>	13			10	9, 14
BSS	Sea bass	<i>Dicentrarchus spp</i>				22	17, 18, 19, 20, 21, 23
SBX	Sea bream	Sparidae			32		16, 16.2
TRS	Sea trout	<i>Salmo trutta</i>				12	
SHZ	Shad	<i>Alosa spp</i>		6, 41			5, 5.2, 45
MAC	Atlantic mackerel	<i>Scomber scombrus</i>				46	
BOG	Bogue	<i>Boops boops</i>			34		
HMM	Mediterranean horse mackerel	<i>Trachurus mediterraneus</i>					
HOM	Atlantic horse mackerel	<i>Trachurus trachurus</i>					
MAC	Atlantic mackerel	<i>Scomber scombrus</i>					
MAS	Chub mackerel	<i>Scomber japonicus</i>					

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