

STUDY ON THE IMPACT OF LEGISLATION ON THE SUSTAINABILITY OF FISHERIES IN THE CANARY ISLANDS

Antonio Barrera Luján

Facultad de Ciencias del Mar, Máster Universitario en Gestión Sostenible de Recursos

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ABSTRACT

Current laws on marine fisheries (artisanal and recreative) and shellfish management and regulation in waters off the Canary Islands are based on three legislative bodies:

a) Rules and directives of the European Union (EU), from which emanate Community previsions tend to develop issues and their sustainable use, and limitations on fishing gear and fishing vessels.

b) Laws enacted by the Government of Spain (Royal Decree), obliged fulfilment in exterior waters of national territory which regulates the use of methods and periods of fishing, and specific areas of closure, where the characteristics of the target species and capture quotas for the stocks considered sensitive are defined.

c) Legislation of regional character, applicable only in inland waters (Art.148.1.11 Spanish Constitution) of the Canary Islands and, as in the previous case, that regulates the use of different fishing gears, limited their use in certain areas, and establishes the fishable species.

However, this broad and complex legislative package has many problems in its application, particularly due to the overlapping of competences between different administrations and the lack of a precise definition of these, the frequent lack of biological information behind the legislative structures, contradictions between laws and between items of the same law, including a large number of arbitrary that reduce legitimacy to the administered. Furthermore, we detected several gaps that seriously undermine the whole purpose of the policy, the sustainability of fishery activity through conservation of the exploited species, as it is described repeatedly in their respective preambles.

1.-INTRODUCTION

In the early XVII century the Dutch jurist Hugo Grotius (1609) postulated the "doctrine of the free sea", in his work *Mare Liberum* (Free Seas), where the seas could not be subject to appropriation by anyone. However, in opposition to this, the reality drawn by Garret Hardin (1968) through the so called "Tragedy of the Commons", describes the dilemma when several individuals, motivated only by self-interest and acting rationally and independently, destroy a shared and limited resource (e.g.: the resources of fishes), even if is not in their interests that such destruction happens. This topic has provoked an important controversy and discussion about human behaviour in various fields, and of course in fishing, which would lead to a series of planning and management strategies in search of the sustainability of stocks. However, the tragedy of the common was identified previously that the Hardin's paper, because in the XVIII century appeared the principle that the sea adjacent to the coast of a country was under its sovereignty, possibly taken not as a conservation issue, but to ensure the exclusivity of economic interests and/or its strategic importance. Initially, the criteria used to determine the width of this coastal area of sovereignty was based on the thesis of the "cannonbullet" distance.

By the XX century, many states expressed the need to extend the territorial sea to protect fishery resources and mining. In the International Conference of the Hagen (The Netherlands), in 1930, not agreement was reached but it was recognized the existence of rights on the 12-mile contiguous zone by these countries. In this sense, on 28th September 1945, the USA President Harry Truman declared that *"the United States of North America considered the natural resources of their continental shelf belonging to them and under their jurisdiction and control."*

After several meetings, agreements, etc., the International Regulatory Body began to be developed giving shape to the known "Maritime Law":

-The 1st Geneva Convention (April 29, 1958), defined the continental shelf till where the slope begins a twelve-mile contiguous zone and territorial sea, but without defining the extension.

-The 2nd United Nations Conference (Geneva, 1960), was formed to reach agreement on the Territorial Sea extension, but there was no agreed.

-The 3rd United Nations Convention of 1982, on the Law of the Sea which provides for the first time the figure of the Exclusive Economic Zone (EEZ), which culminated with the agreement of Montego-Bay.

Following these agreements, in the Canary Islands different sea areas has been defined:

a) Interior waters: Under Spanish sovereignty or jurisdiction, located inside the baseline of two points (e.g. bays), and are under the exclusive jurisdiction of the Autonomous Communities.

b) Exterior waters or territorial sea: Are under the exclusive competence of the State Government, and are located outside the base line and have twelve miles wide.

c) Contiguous zone: 12 miles and is composed by other areas adjacent to the territorial sea and is not state land but which have certain rights, such as inspection (Decree of 11/24/1992, BOE 25/11/1992).

d) Exclusive Economic Zone (EEZ): Up to 200 miles, is subject to a separate legal status and where the state has priority for exploration, conservation, utilization and management of their resources.

In addition, these agreements of Montego-Bay, are of paramount importance in the claims of the Autonomous Government of Canary Islands for the recognition of "Archipelagic waters", recently established by **Law 44/2010 of 30 December**, which gives legislative consistency all those provisions that are held in the Canary Islands and beyond legislating inland (Fig. 1).



Figure 1: Line that defines the "canary waters", which are under the legislation of the Canary Islands Government.

In 1995 it was established a **Code of Conduct for Responsible Fisheries (CCRF) of FAO,** which dictate the fundamental principles governing fisheries management today, and that, as Spain is a signatory to them, inspire the guidelines and objectives of the Spanish legislation on fisheries (Law 3 / 2001 of March 26th) and therefore the Canaries (Canary Islands Fisheries Law (CFL) Law 17/2003, 10th April, regulated by Decree 182/2004, 21th December). These principles are:

a) Conservation of resources.

b) Managing fisheries to promote sustainability for the future. It is in this context that appears for the first time the "ecosystem concept".

Thus, at the World Summit on Sustainable Development in 2002, governments around the world agreed to implement the code of conduct in order to recover in 2015 the fish stocks worldwide.

From these principles emerges the **Regulation of European Union Council No 2371/2002, 20th December,** on the conservation and sustainable exploitation of fisheries resources and ensuring the sustainable exploitation of living marine resources and Aquaculture in the context of sustainable development.

The Spanish legal framework that is based on all the current rules, maintains the aforementioned purposes of conservation and sustainable exploitation of fisheries resources, common to all legislation approved following the publication of the **CCPR**. Is in the law 3/2001 of "The State Marine Fishing", which introduces for the first time in our legal framework the management of renewable living resources of that law arises autonomous interpretation provided in the **CFL**. However, this legal framework is being modified, as stated in the Draft Sustainable Fisheries Act (Official Gazette of the Congress of September 8th, 2010) to replace the current Law 3/2001, on Marine Fisheries.

However, the project in its preamble says, ... *ensure that the use of resources is carried out under principles to ensure sustainability of the activity*, when it should say *ensure that the use of resources is carried out under principles to ensure sustainability of the resource and the health of the marine ecosystem as a whole*

In short, much of its articles are missing the philosophy that emanates from the CCPR, the "ecosystem concept". On the other hand, exists within the Canary the **Draft Law on Marine Fisheries, Shellfish activity and Aquaculture of Canary Islands (September 2009),** showing the interest in the resource but it suffers from not to mention the marine ecosystem that supports it.

In this policy and ideological context, the aims of this study is to evaluate the role that this large and complex legislative package plays in the current situation of exploitation in which fisheries resources are in the Canary Islands. It is expected to establish the problems that arise in its application, particularly due to the crossing of powers between administrations and the lack of a precise definition of them, and to establish consistency and objectivity of the rules with the particularities of biological and social structures on which it pretends to regulate. We will try to elucidate the possible contradictions between laws, and between articles of the same law, and arbitrariness that decrease effectiveness to the ultimate goal of living resource conservation and sustainability of the fishing activity. Also, we will try to define all those gaps that might compromise this objective.

2.-MATERIAL AND METHODS

To develop the work we have consulted the legislative bodies concerning fisheries management exist at the Spanish State (Law 3 / 2001 of March 26), Canary Islands (Law 17/2003 of April 10, developed by Decree 182/2004 of 21 December) (MAPyA, 2005; Gobierno de Canarias, 2008), and regulations that complement it as well as all regulations and guidelines issued by the European Union (Table 1)

COMMUNITY REGULATIONS		
Council Regulation 2930/1986, 22th September	On the characteristics of fishing vessels	
Council Regulation 894/1997, 14 th April	On the conservation of fishery resources.	
Council Regulation 1239/1998, 8 th Juny	Amendment of previous Regulations.	
Council Regulation 850/1998, 30 th March	Protection of juveniles fish.	
Council Regulation 972/2001, 14 th May	Scrapping fishing vessels.	
Council Regulation 973/2001, 14 th May. Title III	On the conservation of highly migratory species.	
Council Regulation 2371/2002, 20th December	On the conservation and sustainable exploitation of	
	fisheries resources.	
Council Regulation 1984/2003 8th April	On the statistical control of bluefin tuna, swordfish and	
Council Regulation 1904/2000, oth April	bigeye tuna.	
Council Regulation 2328/2003, 22th December	On compensation for additional costs incurred in the	
	marketing of certain fishery products from the Azores,	
	Madeira, Canary Islands etc.	
Council Regulation 1811/2004, 11th September	The prohibition on bottom trawling in the Canaries.	
STATE REGULATIONS		
Law 20/1967, 8 th April	Extension of territorial waters to 12 miles	
Law 10/1977, 4 th January	On territorial sea.	
RD 2510/1977, 5 th August	On straight baselines to delimit territorial waters.	
Law 15/1978, 20 th February	On the EEZ.	
RD 1938/1985, 9 th October	Transfer to the Canary Islands in fishing authority.	
RD 2133/1986, 19th September (modified in RD	Standards for recreational fishing in the Canaries.	
1717/1995, 27 th September)		
RD 2134/1986, 19 th September	Minimum fish sizes in the Canaries.	
RD 2200/1986, 19 th September	Regulation of fishing gears in the Canaries.	
RD 491/1994, 17 th March	Transfer to Canary Cofradias authority.	
RD 1998/1995, 7 th December	Standards for control of 1 st fish sale.	
Order January, 20th 1995	Prohibition of fish traps in some areas of the Canaries.	
Order March 26 th 1998	Limitations for some fishing gears in the Canaries.	
Law 3/2001, 26 th Marh	Marine Fisheries	

Table 1: Standard consulted for this work.

RD 2064/2004, 15 th October (modified in RD	Regulation 1 st sale of fishery products.	
607/2006, 19 th May)		
Order APA/677/2004, 5 th March	Regulates purse seine on the Canaries.	
RD 516/2005, 6 th May	Management of the fishing fleet in the Canaries.	
Order July 27 th 2004	Closed to shellfish and barnacles in Fuerteventura.	
REGIONAL REGULATION		
Decree 156/1986, 9 th October	Regulates recreational fishing.	
Order October, 30 th 1986	Underwater fishing areas.	
Order September, 5 th 1994	Regulates fishing licenses.	
Order September 6 th 1994	Regulates temporary/experimental gillnet in GC.	
Decree 62/1995, March 24 th	Chinijo Islands marine reserve.	
Order January, 24 th 1996 (Decree 30/1996, 16 th	Marine reserve in the Restinga (El Hierro).	
February)		
Decree 121/1998, April 10 th	Regulates recreational fishing in the Canaries.	
Decree 155/2001 July 22th	Regulates the 1st fish sale in the Canary Islands and	
Decree 155/2001, July 2501	exploitation of fish market.	
Law 17/2003, 10 th April	Canary Fisheries Law.	
Order July, 27 th 2004	Closed to shellfish and barnacles in Fuerteventura.	
Order Decemb., 29 th 2006; Order 14 th April 2008	Temporal regulation on professional fishing on limpets.	
Order 29 th October 2007, Order 3 rd July 2008	Limit for underwater fishing.	

It has been also consulted on the Project of Law Sustainable Fisheries (Official Gazette of the Congress of September 8, 2010) and the Preliminary project of Law on Marine Fisheries, Shellfish and Aquaculture of the Canary Islands (September 2009).

On the other hand, we have conducted interviews with different people in the field of Legal Sciences and fisheries inspection, from both national and regional governments.

3.-RESULTS

3.1. Legislative Capacity of the Autonomous Government of the Canary Islands

The legislative reference in the Canary Islands begins with the transfer to the Canary Islands on **interior waters**, shellfish and aquaculture takes place by **Royal Decree 1938/1985**, **October 9th**, further developed by the Canary Islands Fisheries Law (CFL)(Law 17/2003 April 10th), which consists of the following subjects:

-In respect of fisheries in interior waters (Title I of the CFL)

- a) Give authorization for the exercise of fishing.
- b) Regulate and fishing gear.
- c) Limit the fishing areas.
- d) Establish closed seasons and fishing hours daily.
- e) Establish the authorized species, and set minimum sizes.

f) Issue rules governing the inspection and sanction (Title VIII of the CFL).

g) To establish an official register of media and people engaged in fishing.

-In the field of aquaculture (Title IV of the LPC) and shellfish (Title III of the CFL

)

a) Give concessions.

b) Establish areas and facilities to set amounts, closures and schedules.

c) Establish the authorized species.

d) Declare areas of interest for aquaculture and shellfishing.

e) Establish rules for the inspection and sanction.

-In recreational activities (Title II of the CFL)

a) To regulate the fishing activities of recreational purposes.

However the State reserves the adoption of standards to regulate anything that might affect the offshore waters and everything that has to do with international relations.

-In terms of Fishermen's Association (Title VI of CFL)

a) Has the powers of associations (Fishermen's Association) of fishermen (RD 491/1994, March 17th, on the transfer of functions and services of the Central Government to the Canary Islands on fishermen's associations).

3.2. Regulations on fisheries resources, gears and reservations

3.2.1. Minimal length for exploited species

The minimum catch length (Royal Decree 560/1995 of 7 April, BOE N ° 84, April 8) has been established only for a minority of species (28 species, Table 2) of the nearly one hundred that are caught off the archipelagic waters (Aguilera-Klink et al., 1993).

Scientific name	Comon name	Minimal capture length
Belone belone gracilis	Mediterranean garfish	25 cm
Boops boops	Bogue	11 cm
Brama brama	Ray's bream	16 cm
Dentex gibbosus	Pink dentex	35 cm

Table2. Minimum body length of capture by species off the Canary Islands.

Dentex macrophtalmus	Red dentex	18 cm
Dicentrarchus labrax	Europeans seabass	22 cm
Diplodus sargus cadenati	Moroccan White seabream	22 cm
Diplodus vulgaris	Two banded seabream	22 cm
Engraulis encrasicholus	European anchovy	9 cm
Epinephelus marginatus	Dusky grouper	45 cm
Liza aurata	Golden grey mullet	14 cm
Mullus surmuletus	Striped red mullet	15 cm
Mycteroperca fusca	Island grouper	35 cm
Pagellus acarne	Axillary sea bream	12 cm
Pagellus erythrinus	Pandora	22 cm
Pagrus pagrus	Red porgy	33 cm
Sardina pilchardus	European Sardine	11 cm
Sarpa salpa	Goldlin	24 cm
Scomber colias	Chub mackerel	18 cm
Serranus atricauda	Blacktail comber	15 cm
Serranus cabrilla	Comber	15 cm
Sparisoma cretense	Parrotfish	20 cm
Sparus aurata	Goldfish	19 cm
Spondyliosoma cantharus	Black seabream	19 cm
Thunnus thynnus	Bluefin tuna	6,4 kg
Thunnus albacares	Albacore	3,2 kg
Thunnus obesus	BigeyeTuna	3,2 kg
Trachurus picturatus	Jack mackerel	12 cm

3.2.2. Regulation of fishing gears in the Canaries

The Decree 182/2004 describes the different fishing gear allowed in the Canary Islands:

a) Purse-seine:

Traiña (purse seine): With a minimum mesh size of 10 mm and maximum dimensions of 350 m. long, not including calone and cuffs, and 80 m. high.

Chinchorro (beach-trawl): Its use is forbidden except to catch live bait without touching the bottom.

Salemera (beach-seine): With an overall length not exceeding 250 m. and a mesh size not less than 70 mm.

b) Gillnets:

Cazonal (set gillnet): The minimum mesh size should be 82 mm. with 2 m high and a length not exceeding 50 m., the total length of nets should not exceed 350 m. and should be deployed deeper than 30 m. In Gran Canaria it is allowed only at:

1.- Arguineguín: from Punta Maspalomas to Playa de la Verga, a distance not less than 2 miles from the coast.

2.- From Roque de Gando to Punta de Jinámar.

3.- North-East Zone: From the Roque (east of Isleta) to Punta Jinámar, during the months of June, July, August and September, except Saturdays, Sundays and public holidays.

4.- North: From Punta Cabezo Grande to Punta Moreno, during the months of June, July, August and September, except Saturdays, Sundays and public holidays.

5.- Agaete area: From the Baja del Negro to El Molino, during the months of May through September.

c) Traps:

Fish traps: Big ones, with a minimum mesh size allowed is 50.8 mm.; It should has 300 cm in diameter and 1 m high (it is not allowed to bait the trap). The small traps should have a minimum mesh size of 31.6 mm, 1 m in diameter and 50 cm high (it is allowed to bait the trap). In both cases the material of construction should be degradable and be deployed at minimum depth of 18 m. (12 m. in Tenerife). The number of traps per vessel allowed in Gran Canaria is 60 units, 15 in La Palma and 30 in the other islands. The law requires the identification of traps with the name and registration number of the boat.

Moray traps: With a maximum diameter of 60 cm and a length or height of 1 m. Authorized 25 traps per vessel. In Fuerteventura this gear is forbidden. In Gran Canaria, in the first five years after the adoption of Decree 182/2004, December 21th (BOC 4; January 7th 2005) allowed 75 traps per boat, and then reduce them to 60 for the next five years. After this deadline, the Canary Islands Government will conduct a study on the effects of these traps on resources and may even, if they are, to ban their use completely in the interior waters.

d) Hooks gears:

Handline: With rod or by hand and with several hooks, usually 3. **Trolling:** 1 or 2 lines mother towed by a boat.

Potera: With leaden spindle-shaped with a crown of hooks on the bottom and the top up. Used mostly for squid.

Longline: You can not have more than 500 hooks, and the length of the main line should not exceed 2,000 m.

e) Gueldera or pandorga: Metal mesh lifting usually underutilized. With a mesh that should not be less than 12 mm and a diameter greater than 3.30 m.

3.3. Areas with limited access to certain types of fishing in Gran Canaria

In Article 12 of the Law on Fisheries of the Canary Islands (Act 17/2003), (Order of March 26th, 1998), we have the protection of some coastal areas where there are artificial reefs, as in the Bay of Santa Agueda off the coast of Arguineguin.

3.4. On the recreational sea fishing

Regulated by the Fisheries Law Canarias (17/2003, Title II) and which are distinguished surface fishing with or without boat (License 3rd), and the submarine fishing. The first does not has time limits and when done with a troll from a boat is called "high fishing" (License 1st).On the surface from coast it is allowed a maximum of two rigs, rod or handline, per license, with no more than three hooks on each. It is forbidden within 150 m from the bathing areas. When done from a boat must keep a distance of 0.5 miles of professional boat and 70 m. from drafts gears. It is prohibited within 250 m of swimming areas and within port.

Marine recreational underwater fishing (license 2^{nd}) will be marked with a buoy and where gun carrying may not be activated out of the water or use it in port areas or marine culture, and no closer than 150 m. from busy areas. The designated areas for the practice of this modality in the interior waters of the Canary Islands are bounded in the Order of October 30, 1986, complete with the Order of October 29th, 2007 and, in turn, has been modified by Order of July 3th, 2008.

On the other hand to carry out any of these types of sport fishing / recreational need get a license as was said before and is referred to in Decree 182/2004 (Regulations of the Fisheries Law).

3.5 On Marketing

The marketing of fishery products is addressed in Title VII of the CFL, analyzing the first home sale, fish marketing establishments and fishing facilities and target marketing, among others. On transport there is nothing in CFL.

3.6. Fish marketing

Decree 155/2001 of July 23 for regulating the process of first sale of fishery products landed in the ports of the Canary Islands and the conditions of exploitation of publicly owned fish markets. Order of 4th June 2002, which determines the content and format of documents related to the first sale of fishery products landed in the ports of the Canary Islands. (BOC n ° 081, June 17th, 2002).Order 4th June 2002, which regulates the administrative authorization system of fish marketing and stores for the first sale of fishery products. (BOC n ° 086, June 24th, 2002).

3.7. Shellfishing

Order May 2nd 2011, which regulates some aspects of shellfish on foot to the collection of some shellfish species in the Canaries. This Order has given rise to much controversy especially those coming from the island of Fuerteventura.

3.8. EU Regulations

There are a number of provisions (regulations) issued by the EU that have jurisdiction over fisheries of the Canary Islands.

1.-Regulation 2930/86 of 22 September on the definitions of the characteristics of fishing vessels.

2.-Council Regulation 894/97 of 14 April 1997 on technical for the conservation of fishery resources.

3.-Regulation 1239/98 of June 8, 1998 amended the previous regulation.

4.-Regulation 972/2001, the Council of 14 May 2001 on technical measures for the conservation of certain highly migratory species.

5.-Regulation 972/2001, the Council of 14 May 2001 on the decommissioning of fishing vessels.

6.-Regulation 2371/2002 of 20 December on the conservation and sustainable exploitation of fisheries resources.

7.-Regulation 1984/2003, the Council of 8 April 2003 on the statistical monitoring of bluefin tuna, swordfish and bigeye tuna.

8.-Regulation 2328/2003 of 22 December 2003 on compensation for additional costs incurred in the marketing of certain fishery products from the Azores, Madeira, Canary Islands etc.

9.-Regulation 1811/2004 of 11/10/2004 concerning the prohibition on bottom trawling in the Canaries.

4.-DISCUSSION

"Canarian coastal waters, to depths of about one hundred meters, have been subject to overfishing during the last decades and has led to the current status of biological deterioration, with a significant decrease in fish captures, especially those of demersal nature. The consequences of this state of depletion are almost as notable exponents disappearance of some species in different coastal areas, which previously were relatively abundant, as has been stressing size catches of increasingly smaller and use progressively less selective gears as a way to offset the decline in resources, exercised pressure on them increasing. All these are indicators representing inducing a serious reflection on the fragile state of the fishery resources of the Canary Islands, which are in turn required the adoption of measures to alleviate the situation.

In the Canary professional fisheries sector criteria exist in widespread use to blame the increasingly indiscriminate, gill nets, trawls and traps with small mesh size, as one of the factors that increased incidence has had on the deterioration of coastal fishery resources.

In order to bring the proposed regulation gear and use the characteristics of the sector, have maintained contacts and previous meetings with the Provincial Federations of Fishermen and those specific Fishermen Association have wanted to express some kind of specificity that affect them and various institutions (scientific, educational, etc.), obtaining adequate general rules to the socio-economic artesanal subsector, which may be subject to a dynamic development closely related to the agreements adopted by local boards of Fishing for each of the islands, through the reflection made of them through the appropriate regulations to be issued by the competent organs of the Council of Agriculture, Livestock and Fisheries". In this way, in the preamble of the previous Law on Fisheries of the Canary Islands (Decree 154/1986, of October 9, regulation of fishing gear and methods in interior waters of the Canary Islands, BOC 125, October 17 1986), the problem of overfishing in which resources were in the islands (year 1986) and served as motivation for establishing the regulatory body reviewed here. Specifically, in the case of the traps in Article 4 of the Decree reflects: *"It is temporarily permitted the practice of trap fishing, adapting appropriate measures aimed at their disappearance in the medium term"*, limiting their number to 25 units per vessel, with the Order of October 11, 1990 (BOC 137, November 2, 1990).

Interestingly, despite the scientific community has confirmed that the vast majority of fish stocks exploited by fisheries in the islands are in a situation of overfishing (Bas et al.,1995; REPESCAN, 2008; Couce, 2010; among many other documents), the Government of the Canary Islands, through the Fisheries Law currently in force (Law 17/2003), in contradiction with its own preamble, states, in practice, a different contrary scenario that motivated the legislation of 1986, promoting a significant increase in fishing effort (e,g, 75 traps per boat to Gran Canaria). Probably not because of an improved state of resources, but as an approach to the reality of the exploitation strategy being exerted on the islands and caused by their own inability to apply the old law (Hernández-García et al. assessed the average number of traps used by the fleet of Mogan was 275 units by boat in 1998). To this we must add the program to remodel the fleet, cofinanced by European funds, which have generated a significant increase in fishing power, somewhat paradoxically recognized and admitted situation of overfishing by the authorities involved.

On the other hand, one of the major problems with current regulations is the distribution of competences between the region and the state government, which is clearly identified in the division between interior and exterior waters, generating a lot of regulatory problems and order, and confusion by the public. However, this division of powers trying to mitigate through promulgated rules, simultaneously, by the central government and extending the rules on interior waters to the offshore waters of state responsibility (Royal Decree 2200/1986 of 19 September regulation of fishing gear and methods of fishing in the waters of the Canary Islands, BOE 255, October 24, Order of 26 March 1998 laying down certain areas reserved for certain modes fishing in the waters of the Canary Islands, BOE 82 on April 6, Order of 20 January 1995 which prohibits the use of fish traps in certain areas of the Canary fisheries, BOE 23 January 27). However, this does not prevent conflicts of competence between administrations, which results in even more confusion. Example serves to regulate the practice of recreational underwater fishing published in the BOC n ° 222, November 6, 2007. After its publication, the Ministry of Agriculture, Fisheries and Food, in relation to the basic State regulations established by Law 3 /

2001 of March 26, the State Marine Fisheries, and pursuant to the provisions of article 149.1.19 of the Spanish Constitution, a number of discrepancies with regard to the delimitation of interior waters of the Canary Islands, among which allows the practice of marine recreational underwater fishing. In light of these discrepancies was determined that some of the geographic coordinates contained in the annex to the Order of the Ministry of Agriculture, Livestock, Fisheries and Food, October 29, 2007, affecting sites included in offshore waters of the state competition . In accordance with the geographic coordinates contained in Royal Decree 2.510/1977, 5 August, on the path of straight baselines in developing the Law 20/1967 of 6 April, on the extension of Spanish territorial waters to 12 mile fishing effects (BOE n ° 234 of September 30, 1977), and therefore should be modified, which is in the Order of July 3, 2008.

In addition, this division of powers between governments in fisheries management and management of the same resource, difficult and involves some degree achieve the goal of resource protection and sustainability of the activity, and create inequalities between different actors with the same purpose. Thus, whereas fishermen fishing in the waters around the islands, which are based on port facilities in them, have limited the use of the longline (as far as number of hooks), fishermen from the Peninsula (e.g. Algeciras) or Madeira (the latter through an agreement between governments Spain and Portugal to Madeira longline fleet can fish between 12 and 100 miles from Canary Islands) can use longer longlines gear for swordfish and related or black scabbardfish (*Aphanopus carbo*), respectively. In the case of the fishery for black scabbard fish generate a large amount of by-catch and discards, especially deep-sea sharks (Pajuelo et al., 2010) that exceeds 36% of the catch by weight. Among other species, it is catched canarian hake (*Mora moro*), also caught in the waters around the islands with large traps and lines.

It is possible that the development of Law 44/2010 of 30 December, which establishes the archipelagic waters of the Canary Islands can reduce this problem by providing more uniform regulation for the entire fishery.

On the other hand, the CFL has also several arbitrariness, inconsistencies and contradictions. Thus, the minimum catch size (Royal Decree560/1995 of 7 April BOE N° 84, April 8) have been established only for a minority of species (28 species, Table 2) of the nearly one hundred that are fished in these waters (Aguilera-Klink et al., 1993), obeying possibly a criteria based on existing information at the time of dictating the rule (eg: the case of tuna that are regulated by ICCAT), rather than conservation criteria for the over-fishing of species or ecological interest. For example, there is a minimum size regulation for species like the mediterranean garfish, bogue or golden grey mullet, species with low commercial interest because of its reduced commercial interest in the islands, while others such as certain sharks (eg

angelshark), rays, "catalufa", "berrugato", "romero capitan", barret hogfish, among others, which populations occupe high trophic niches or are too rarefied due to intensive fishing (Espino et al., 2006), are not covered.

Similarly, it appears that some of these sizes are not consistent with the knowledge we have of the biology of the species in the Canaries, like red mullet (*Mullus surmuletus*) in the Canaries should have a minimum catch size above 16.6 cm. (Size at maturity according to Pajuelo et al., 1997), the "abade" (*Mycteroperca fusca*) where males do not become sexually mature until 43 cm (Bustos et al., 2010), or bluefin tuna (bigeye) whose capture allowed is from 6.4 kg in weight, in spite of being a species threatened with extinction (IUCN, 2010), reaches the size at first maturity at 103.6 cm FL (Correiro et al., 2005), with about 20 kg (Deguara et al., 2010).

Moreover, in this sense, the rule allows the capture of these species when they are as live bait for the tuna fishery, without implying any obligation on its entry into the data capture, and control system which permits define the impact of this fishery on the recruitment of many species pelagic-coastal and bentho-demersal. Do not forget that recruitment is one of the most critical phases in any fishery, and the impact on it intensely as during the harvest of tuna, which can last more than 4 months a year, may put considerable risk the future of sustainability of fishing explotation. It is possible that this type of fishing, along with adverse weather conditions (Caballero-Alfonso et al., 2010, Polanco et al., 2011), may be the reasons behind the present collapse of the fishery, of coastal pelagic species in Gran Canaria.

Among the contradictions in the legislation could emphasize the Decree 182/2004 on the regulation of fishing gear authorized. The decree see as the traps has a different consideration depending on the island in question, so that we can find that the minimum depth of 18 m depth, although in Tenerife is 12 m. There is no reason, at least based ecological, biological or geomorphological, that can justify such a singularity in the standard, but the pressure made by the fishing industry of the island on the legislator. However, the most striking contradiction lies between the definition of the problem in the Preamble(...*fishing in the islands has been historically a major role in the economy of the Canary Islands. Currently, a number of circumstances, such as the modernization of vessels and high population growth, have determined that the fishing effort has increased significantly over coastal resources and have reached a situation of overfishing, which has been accentuated by the intense development of recreational fishing as a leisure activity and enterprise) and the de facto favoring the law itself makes of the fishing effort over the previous standard, particularly as the number of traps allowed terms. On the other hand, while recognizing the importance, it does not establish*

mechanisms to assess the impact of recreational fishing through a mandatory to declaire the catches.

Nor should we forget that the Canary Islands has a high geographic and environmental diversity in terms of its distance from the African continent, which results in noticeable differences in the structure of island marine ecosystems, particularly as far as biological diversity is concerned (Brito et al., 1996), and produces the same species can present different biological characteristics depending on the particular environments of each island (the temperature differences of seawater between the eastern and western islands of the archipelago may be over 5 °C (La Violette, 1974; Ramos 1992). This has to translate into differences in metabolic rates (Schmidt-Nielsen, 1990) (per each 10 ° C doubles metabolic rate) in growth rates, periods reproductive, fertility, longevity and, therefore, in relative abundance among species (Castro et al., 2000; Fazeres-Malheiro, 2007). In short, although there is some gene flow between populations of fish that inhabit different islands (Castro et al., 2000, Rodriguez et al., 1999), from the fishing point of view we can say that each island present individual fish stocks, especially when they are separated by great depths and their island platforms are independent (Lanzarote and Fuerteventura are an exception.)

The word stock is introduced into the terminology of the science of fishery biology as one management unit, which implicitly includes some degree of biogeographic isolation. The definition of stock is very varied, but basically is a unit of population made up of groups of individuals of a same specie (and exceptionally a set of species with similar characteristics) submitted to exploitation in a determined geographical area. Is the unit that has the potential to regenerate the biomass caught by man. It is a simple way to specify a specific fraction (the exploited) of the population in the biological sense of the term. Gulland (1983), for purposes of fisheries management, defined stock as a group of organisms that can be dispensed with the differences within it and ignored the exchanges with other groups, without invalidating the conclusions reached. Guerra-Sierra and Sanchez-Lizaso (1998) defined it as the set of individuals of the same species whose migration gains or losses due to emigration, if any, are negligible compared to earnings growth and mortality losses. Otherwise, you can said that a stock is a set of individuals of a specie that has the same growth parameters and mortality, living in a particular geographic area. Therefore, fisheries management should take into account the stock, and in this sense, the fishing regulations should be limited to the insular area, always within a general legislative framework.

In conclusion, should be avoid in the fishing law all the aspects that reduce their efficiency, such as arbitrariness, contradictions and clashes of jurisdiction between administrations. In addition, the legislation should be structured in terms of scientific knowledge,

not on subjective judgments that lead to a lack of assumption the exploitation. Futhermore, it should establish a general framework that does not prevent regulation establish the singularity of each island needs in terms of bio-ecological characteristics of species / stocks and the ecosystems that support them, and also the characteristics of the predominant fishing methods on each island, by their geomorphology and oceanography, and idiosyncrasy of its fishermen.

The Article 21th of the Law allows you to configure a new management model based on the exploitation rights, which may be an appropriate tool to achieve sustainability (Gutierrez et al., 2010). However, you must first create the appropriate legislative framework for the exploitation rights can be applied in the legal context of Spain.

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