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Section contents

15 Sea bass in divisions 8.c and 9.a (southern Bay of Biscay and Atlantic Iberian waters)

Dicentrarchus labrax – bss.27.8c9a

Type of assessment: no analytical assessment

Sea bass, *Dicentrarchus labrax,* stock in divisions 8.c and 9.a is considered a data-limited stock (DLS) and therefore classified as a category 5.2 stock (ICES, 2012a).

Advice basis: precautionary approach

The advice for this stock is biennial.

Data revision

Landings for years 1978 to 2000 were included with information available in the ICES historical database or in InterCatch.

15.1 General

15.1.1 Stock identity and substock structure

Sea bass is a widely distributed species in Northeast Atlantic shelf waters with a range from southern Norway, through the North Sea, the Irish Sea, the Bay of Biscay, the Mediterranean and the Black Sea to Northwest Africa. The species is at the northern limits of its range around the British Isles and southern Scandinavia. Further studies are needed on sea bass stock identity, using conventional and electronic tagging, genetics and other individual and population markers (e.g. otolith microchemistry and shape), together with data on spawning distribution, larval transport and VMS data for vessels tracking migrating sea bass shoals, to confirm and quantify the exchange rate of sea bass between areas that could form management units for this stock (ICES, 2012a; ICES, 2012b; ICES, 2012c).

The stock identity was assumed to be: Northern (ICES areas 4.b, 4.c, 7.a, 7.d–7.h); Southern Ireland and Western Scotland (ICES areas 6.a, 7.b and 7.j); Biscay (ICES areas 8.a and 8.b); Portugal and Northern Spain (ICES areas 8.c and 9.a) (Figure 15.1). Currently, stock identity has not been changed (ICES, 2017a), but research on population structure is in progress.

15.1.1 Biological reference points

No biological reference points are defined for this stock.

15.2 ICES advice on fishing opportunities

ICES advices that when a precautionary approach is applied, commercial catches in each of the years 2022 and 2023 should be no more than 382 t. ICES recommends that catches should not increase unless there is evidence that these will be sustainable. All commercial catches are assumed to be landed. Recreational removals cannot be quantified and therefore total catches cannot be calculated.

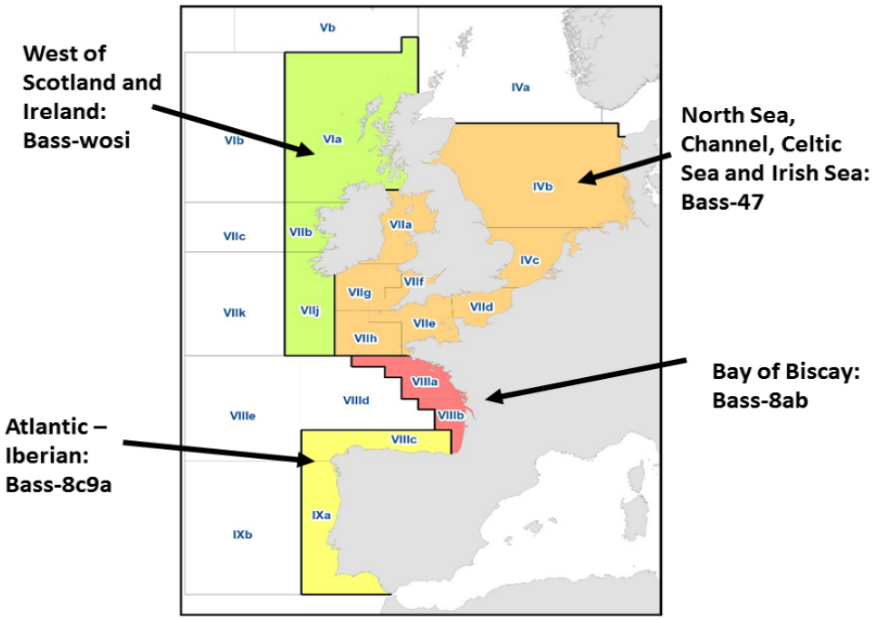

Figure 15.1. Current stock definitions for sea bass.

15.3 Management

15.3.1 Management applicable to 2017

Sea bass is not subjected to EU TACs and quotas. Under the EU regulation, the minimum landing size (MLS) for commercial fisheries of sea bass in the Northeast Atlantic is 36 cm total length. A variety of national restrictions on commercial sea bass fishing is also implemented.

The measures affecting recreational fisheries in Portugal include gear restrictions, a MLS equal to the commercial fishery (36 cm), the total catch of fish and cephalopods by each fishery must be less than 10 kg per day, and the sale of catch is prohibited.

15.3.2 Management applicable to 2018

No management measures are known in 8.c and 9.a for the year 2018.

15.3.3 Management applicable to 2019

A multiannual management plan (MAP; EU, 2019) has been published for the Western Waters (European Parliament and Council Regulation (EU) 2019/472). This plan applies to demersal stocks including sea bass in ICES divisions 8.c and 9.a.

15.3.4 Management applicable to 2020

European Parliament and the Council have published a multiannual management plan (MAP; EU, 2019) for the Western Waters (European Parliament and Council Regulation (EU) 2019/472). This plan applies to demersal stocks including sea bass in ICES divisions 8.c and 9.a.

15.4 Fisheries data

15.4.1 Commercial landings data

Landings series are given in Figure 15.1 and are derived from:

i) Official statistics recorded in the FishStat database (FAO, 2020) since around the mid-1970s.
ii) Spanish landings for 2007–2011 from sales notes.
iii) Portuguese estimated landings from 1986 to 2011 including the distinction between *Dicentrarchus labrax* and *D. punctatus*.
iv) Official landings from recent years (reviewed from 2012 onwards).
v) InterCatch.

Spanish and Portuguese vessels represent almost all of the total annual landings in the areas 8.c and 9.a. Commercial landings represent 896 t in 2019 (source InterCatch). A peak of landings was observed in the early 1990s and in 2013, reaching more than 1000 t while the lowest landings (637 t) have been observed in 2004. Artisanal fisheries are mainly observed in this area (Table 15.2). Landings from Portugal are only from Division 9.a, while the Spanish landings are distributed between divisions 8.c and 9.a (212.3 t and 212.5 t in 2020, respectively). Landings per country are given in Figure 15.2, and landings split by country, gear, and area are given in Table 15.2.

It should be noted that according to the Portuguese administration official landings from 2018 are probably overestimated due to a duplication in the calculations. Official landings were extracted from the ICES Official Statistics webpage for *D. labrax* (BSS) and divisions 8.c and 9.a. The difference between ICES statistics and the official statistics are primarily that, prior to 2006, most of the sea bass catches in the Portuguese statistics were registered under the code BSE which represents all *Dicentrarchus* spp. combined. After the implementation of the Data Collection Framework (DCF) there was a progressive increase in the correct identification of *D. labrax* in the official statistics (the number of BSS increased while BSE decreased) that consider *Dicentrarchus* spp. landings minus 2.3% of *Dicentrarchus punctatus* based on DCF market and onboard sampling between 2008 and 2012.

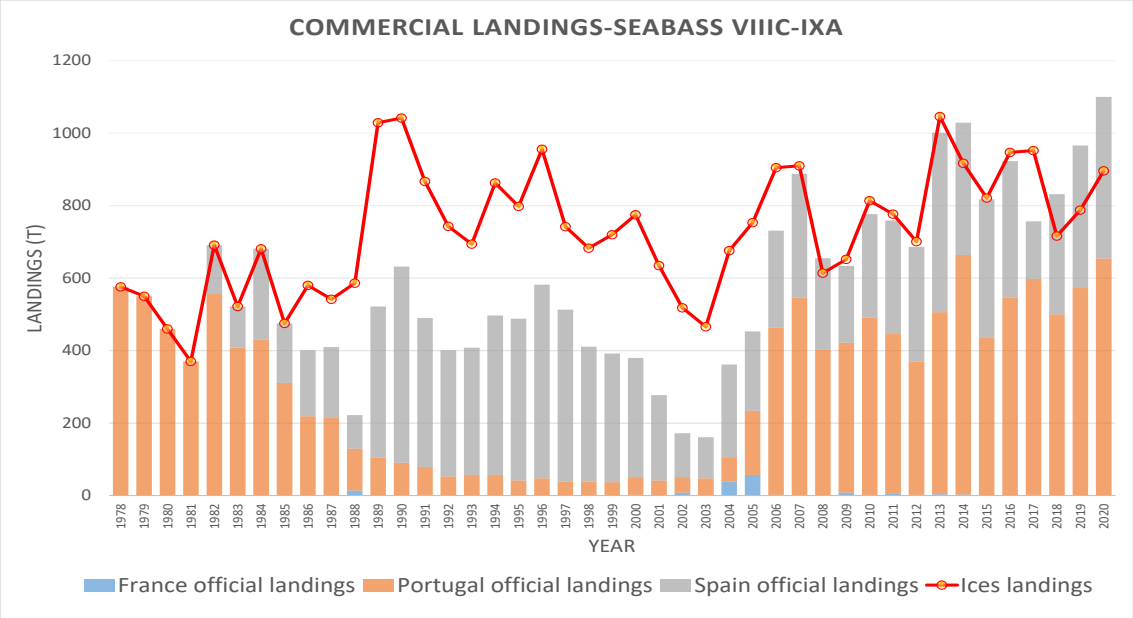

Figure 15.2. Commercial landings per country in divisions 27.7.8.c and 27.7.9.a (source: official landings and InterCatch).

15.4.2 Commercial length composition data

Quarterly length composition is available in Division 9.a (source: InterCatch) for commercial Portuguese fleet (MIS_MIS_0_0_0) in 2016–2020 (Figure 15.3) and for Spanish commercial fleet in 2017–2020 (Figure 15.4).

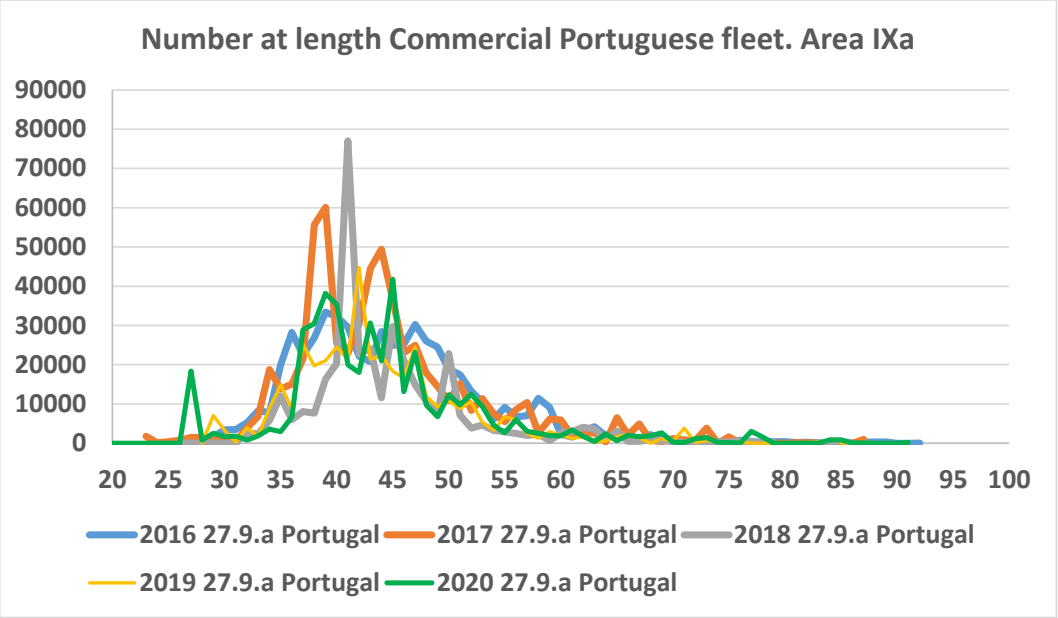

Figure 15.3. Commercial length composition in 2016–2018 for Portuguese fleet landings (source: InterCatch).

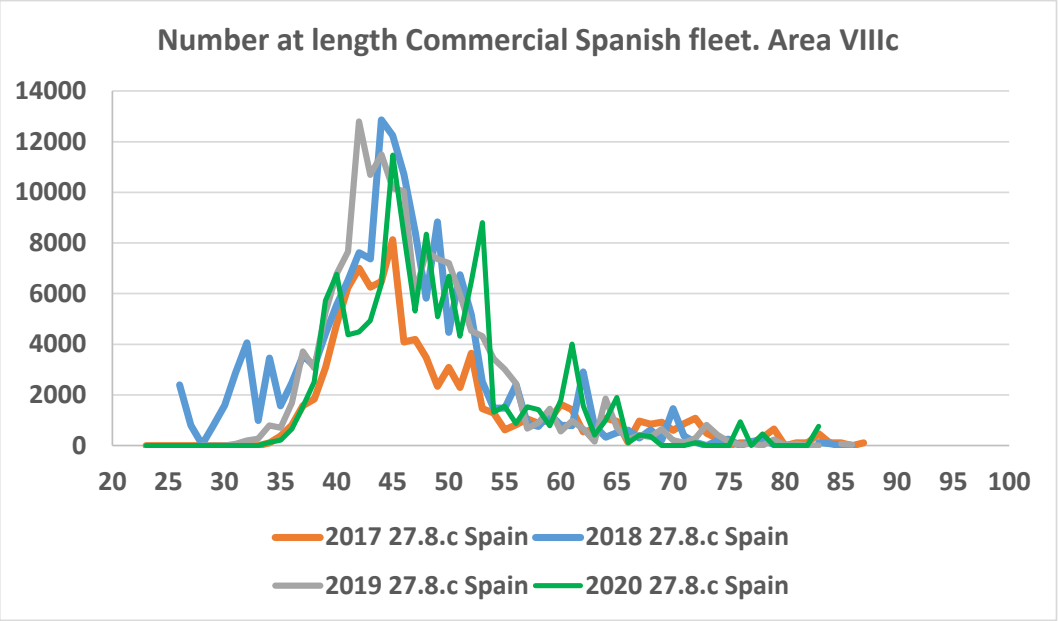

Figure 15.4. Commercial length composition in 2017–2018 for Spanish fleet landings (source: InterCatch).

15.4.3 Commercial discards

Portugal: Sea bass discards are recorded by the DCF onboard sampling program. The Portuguese onboard sampling does not cover the sea bass fishing area in divisions 8.c and 9.a where no discards were observed.

Spain: No sea bass discards were observed for any métier from 2003 to 2020.

15.4.4 Effort

Some effort data were available (source: InterCatch) for Spanish fleet from 2013 and for Portuguese fleet from 2015, showing a global decrease over time (Figure 15.5).

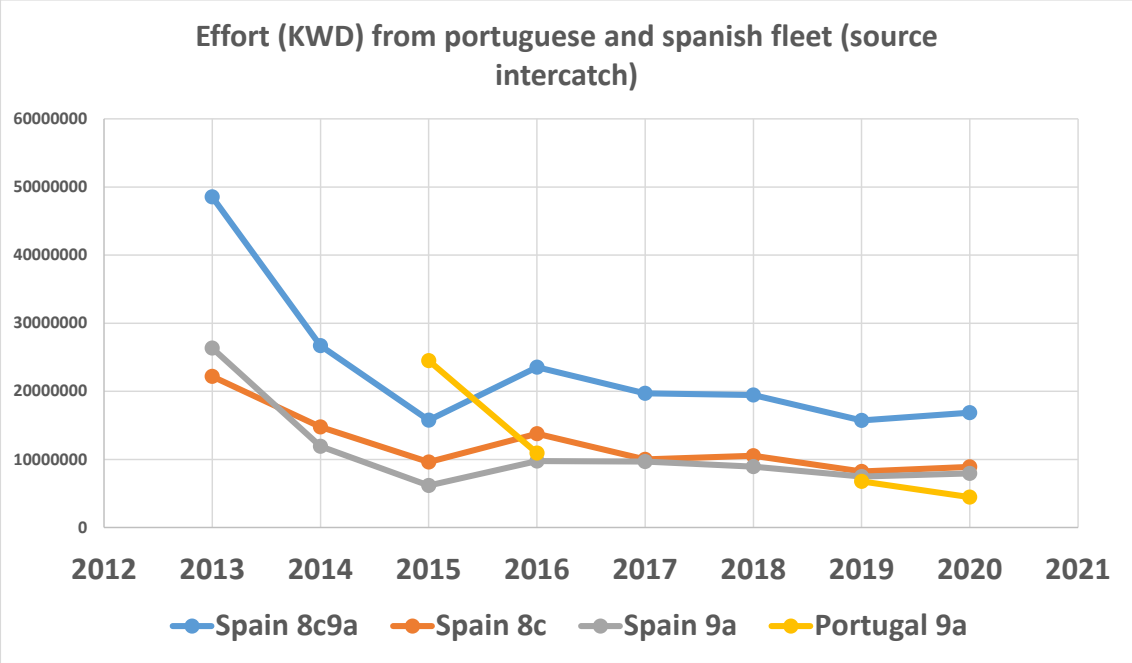

Figure 15.5. Effort (KWD) for Spanish and Portuguese fleets in divisions 8.c and 9.a (source: InterCatch).

15.4.5 Recreational removals

In 2015, a study was conducted in Spain titled: *Comparing different survey methods to estimate European sea bass recreational catches in the Basque Country* (Zarauz *et al*., 2015). This is the first study that estimates sea bass recreational removals in the Basque Country including fishers from shore, boat, and spearfishing. Three different offsite survey methods were used (e-mail, phone, and post) and their performance was compared. Estimates were different depending on the survey method used. Total catch estimates for shore fishing were 129, 156, and 351 t for e-mail, phone, and post surveys, respectively. For boat fishing, estimates varied from 5 (phone) to 13 t (e-mail and post). For spearfishing, only e-mail surveys were performed and total catch was estimated at 13 t. Potential representation and measurement bias of each survey method were analysed. It was concluded that post surveys assured a full coverage of the target population, but showed very low response rates. Telephone surveys presented the highest response rates, but lower coverage of the target population. E-mail surveys had a low coverage and a low response rate but was the cheapest method that provided the largest sample size. All surveys methods were affected by recall bias. Recommendations are made on how to improve the surveys (increasing coverage, reducing non-response and recall bias) to set up a routine cost-effective monitoring program for the Basque recreational fisheries. Results show that estimated sea bass recreational removals are comparable to commercial catches which emphasized the relevance of implementing a routine recreational fishing sampling and include the collected information in the stock assessment and management process.

In 2016, data for the sea bass capture estimation in recreational fisheries (117 t) provided by AZTI corresponded only to the Basque Country landings, and that despite being mostly categorized as species captured in Division 27.8.c, a portion may have been caught in Division 27.8.b (Source:

AZTI's estimation under the DCF). Further details can be found in the WGRFS 2017 report (ICES, 2017b).

Recreational removals of sea bass in divisions 8.c and 9.a are unquantified but are considered not negligible.

15.5 Assessment model, diagnostics and retrospectives

15.5.1 History of previous assessments

***Advice for 2014*:** Based on the ICES approach for DLSs, ICES advised that commercial catches should be no more than 598 t in 2014 (0.8*average landings 2009–2011). All commercial catches are assumed to be landed. Recreational removals cannot be quantified; therefore, total catches cannot be calculated.

***Advice for 2015*:** There are no new data available and the perception of the stock has not changed. Therefore, the ICES advice for this fishery in 2015 was similar to the advice provided in 2014 where commercial catches should be no more than 598 t. All commercial catches are assumed to be landed. Recreational removals cannot be quantified; therefore, total catches cannot be calculated.

***Advice for 2016 and 2017*:** the ICES framework for category 5 stocks was applied (ICES, 2012a). For stocks without information on abundance or exploitation, ICES considered that a precautionary reduction of catches should be implemented unless there is ancillary information clearly indicating that the current level of exploitation is appropriate to the stock. The precautionary buffer (0.80) was applied in 2013 for the 2014 advice. ICES advised that when the precautionary approach is applied, commercial catches should be no more than 598 t in each of the years 2016 and 2017.

***Advice for 2018 and 2019*:** The ICES framework for category 5 stocks was applied (ICES, 2012a). For stocks without information on abundance or exploitation, ICES considered that a precautionary reduction of catches should be implemented unless there is ancillary information clearly indicating that the current level of exploitation is appropriate to the stock. As the precautionary buffer was applied in 2013 for the 2014 advice, the precautionary buffer of 0.80 was again applied to result in advice that commercial catches should be no more than 478 t in each of the years 2018 and 2019.

In 2018, a precautionary approach (PA) has been adopted as the basis for advice on this stock in 2013 (−20%) based on the average of the 2009–2011 catches (ICES, 2018). The new buffer of 20% applied this year to the latest advice did not make sense for the WG in 2018 due to the previous period considered for the calculations, the relative stability in landings over time, the presence of very large individuals (up to 92 cm) in length composition of commercial landings and because sea bass is not a targeted species in this area compared to the northern stock. The application of the precautionary buffer (20% less) on the mean of the 2014–2016 catches that resulted in catch advice of 716 t would have been probably more appropriate.

Advice for 2020 and 2021: The ICES framework for category 5 stocks was applied (ICES, 2012a). For stocks without information on abundance or exploitation, ICES considered that a precautionary reduction of catches should be implemented unless there is ancillary information clearly indicating that the current level of exploitation is appropriate to the stock. ICES advises that when the precautionary approach is applied, commercial catches in each of the years 2020 and 2021 should be no more than 478 t. The precautionary buffer was not applied. All commercial catches are assumed to be landed. Recreational removals cannot be quantified and therefore total catches cannot be calculated.

15.5.2 Current assessment

Previous assessments were based on the period 2009–2011 for calculations where the buffer is consecutively applied every two years since 2015 resulting in decreasing commercial catch advice, which for the WG does not make sense when considering the stability of the stock. However, the precautionary buffer (0.8) was applied again this year. The ICES framework for category 5 stocks was again applied (ICES, 2012a) this year. ICES advises that when the precautionary approach is applied, commercial catches in each of the years 2022 and 2023 should be no more than 382 t. COVID-19 did not affect the data provided for an assessment or advice,

15.6 Recommendations for next benchmark assessment

In 2019, the WG encouraged the documentation of the sea bass data quality for the Iberian waters, and propose studies to better understand the stock dynamics and movements between the current stock areas (ICES, 2019). Sea bass in Iberian waters is still considered as a category 5.2. The ICES framework for category 5 stocks is applied (ICES, 2012a) for catch advice. Currently, no information is available to provide the status of this stock. A parallel can be done with the northern sea bass (bss27.7.8ab) stock assessed which used the same methodology until 2014. In 2015, a French LPUE index was estimated based on the logbook of French commercial vessels (> 10 m and < 10 m). This allowed the assessment of this stock using the ICES framework for category 3 stocks (ICES, 2012a). The French LPUE was applied as an index of stock biomass. The advice was based on a comparison of the two latest index values (index A) with the three preceding ones (index B) multiplied by the recent average landings. The analysed dataset correspond to Spanish and Portuguese logbooks from commercial vessels catching sea bass (< 10 m if possible, and > 10 m). This point has been discussed during the WGBIE 2021 (ICES, 2021), but landings in divisions 8.c and 9.a are mainly caught by artisanal fleets (vessel < 10 m) which do not fill the logbooks. Intersessional work before the next WG is proposed to explore the stock structure with other sea bass stocks (bss.27.8ab and bss.27.4bc7ad–h) and if promising results will be obtained, the WG would push for a new benchmark in 2024.

15.7 Management plan

The EU multiannual plan (MAP; EU, 2019) for stocks in the Western Waters and adjacent waters (Regulation (EU) 2019/472) applies to this stock. The MAP stipulates that when the F_{MSY} ranges are not available, fishing opportunities should be based on the best available scientific advice. This plan applies to demersal stocks including sea bass in ICES divisions 8.c and 9.a.

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15.9 Tables and figures

Table 15.1. Sea bass in divisions 8.c and 9.a. ICES and official landings (tonnes). NB: Official landings reviewed from 2012 onwards in 2019.

Year	France*	Portugal*	Spain*	Total*	Total ICES estimates**
1978	0	576	0	**576**	**576**
1979	0	550	0	**550**	**550**
1980	0	460	0	**460**	**460**
1981	0	370	0	**370**	**370**
1982	0	556	135	**691**	**691**
1983	0	408	114	**522**	**522**
1984	0	431	250	**681**	**681**
1985	0	311	164	**475**	**475**
1986	0	219	182	**401**	**580**
1987	0	216	194	**410**	**542**
1988	14	115	93	**222**	**586**
1989	0	105	417	**522**	**1029**
1990	1	90	541	**632**	**1042**
1991	2	77	411	**490**	**867**
1992	0	53	348	**401**	**743**
1993	0	57	351	**408**	**694**
1994	0	57	440	**497**	**863**

Year	France*	Portugal*	Spain*	Total*	Total ICES estimates**
1995	0	42	446	**488**	**798**
1996	0	48	534	**582**	**956**
1997	0	39	474	**513**	**742**
1998	0	38	373	**411**	**683**
1999	0	37	355	**392**	**720**
2000	2	49	329	**380**	**775**
2001	0	42	235	**277**	**635**
2002	8	43	121	**172**	**518**
2003	1	47	113	**161**	**466**
2004	39	67	256	**362**	**676**
2005	57	177	219	**453**	**753**
2006	2	461	268	**731**	**905**
2007	1	545	342	**888**	**910**
2008	0	403	252	**655**	**614**
2009	8	414	212	**634**	**652**
2010	2	489	286	**777**	**814**
2011	5	441	313	**759**	**777**
2012	2	368	316	**686**	**701**
2013	4	502	495	**1001**	**1046**
2014	3	661	365	**1026**	**917**
2015	0	437	381	**818**	**821**
2016*	0	546	377	**923**	**947**
2017	2	596	159	**757**	**952**
2018	0	500	332	**832**	**716**
2019	0	573	393	**966**	**788**
2020	0	654	446	**1100**	**896*** **

***Official landings have been extracted from the ICES official catch statistics web page (04 May 2015) for "BSS" (*D. labrax*) for divisions 8.c, 9.a, and 9 (9 has been retained for Portuguese catch statistics as data were reported as for 9.a prior to 2007).**

****Difference between ICES and official statistics are mainly due Portugal catch statistics prior to 2006. Most of the sea bass catches were registered under the code BSE (*Dicentrarchus* spp.) until 2005. After the DCF implementation, there was a progressive improvement on the correct identification of species in the official statistics (BSS increased**

while BSE decreased) where 2.3% of *Dicentrarchus punctatus* landings were deducted from the total *Dicentrarchus* spp. Landings. The deducted proportion was based on the DCF market and onboard sampling between 2008 and 2012.

***Preliminary.**

Table 15.2. Commercial landings in Iberian waters per country, gear, and subarea.

	Source : intercatch2016-2019 and ices accessions 2020	landings 2016	landings 2017	landings 2018	landings 2019	landings 2020
Portugal	total IXa	565	598	366	415	471
	MIS_MIS_0_0_0	565	598	366	412.3	467.3
	OTB				0.52	0.4
	PS_SPF_0_0_0				2	3.3
	total VIIIc	0	0	0	0	0
	Total Portugal	565	598	366	415	471

	Source : intercatch	landings 2016	landings 2017	landings 2018	landings 2019	landings 2020
Spain	total IXa	165	171	168	187	213
	GNS_DEF_60-79_0_0	8	8	12.1	52.3	33
	GNS_DEF_80-99_0_0	0	0	0.04	0	0
	GTR_DEF_60-79_0_0	50	45	33.7	25.88	29
	LHM_DEF_0_0_0	3	3	3.38	0	0
	LLS_DEF_0_0_0	86	85	76.61	83.82	112
	MIS_MIS_0_0_0_HC	12	3	2.2	7.51	10
	OTB_DEF_>=55_0_0	0	0	0.08	0	0
	OTB_MCD_>=55_0_0	0	0	0.33	0	0
	PS_SPF_0_0_0	6	25.03	39.38	17.47	27
	total VIIIc	215	183	182	186	212
	GNS_DEF_>=100_0_0	0	0	0.04	0	0
	GNS_DEF_60-79_0_0	7	11	12.82048	37.4	33
	GNS_DEF_80-99_0_0	3	1	3.81	2.3	4
	GTR_DEF_60-79_0_0	38	26	26.76525	12.6	26
	LHM_DEF_0_0_0	2	0	1.02	0.03	1
	LHM_SPF_0_0_0			0.18	0	0
	LLS_DEF_0_0_0	139	130	115.19584	120.03	131
	MIS_MIS_0_0_0	0	3		0.95	0
	MIS_MIS_0_0_0_HC	3		1.85	0	1
	OTB_DEF_>=55_0_0	0	0.29	0.343	0.23	1
	OTB_MPD_>=55_0_0	1	0.25	0.49	0.05	0
	PS_SPF_0_0_0	21	12.81	19.5689	12.35	13
	PTB_MPD_>=55_0_0	0		0.3763	0.05	0
	total spain Ixa+VIIIc	380	353.86	350	373	425