

Sea bass (*Dicentrarchus labrax*) in divisions 8.a–b (northern and central Bay of Biscay)

ICES advice on fishing opportunities

ICES advises that when the EU multiannual plan (MAP) for Western Waters and adjacent waters is applied, catches in 2021 that correspond to the F ranges in the MAP are between 2966 tonnes and 3770 tonnes. According to the MAP, catches higher than those corresponding to F_{MSY} (3108 tonnes) can only be taken under conditions specified in the MAP, whilst the entire range is considered precautionary when applying the ICES advice rule.

Note: This advice sheet is abbreviated due to the COVID-19 disruption. The previous advice issued for 2020 is attached as Annex 1.

Stock development over time

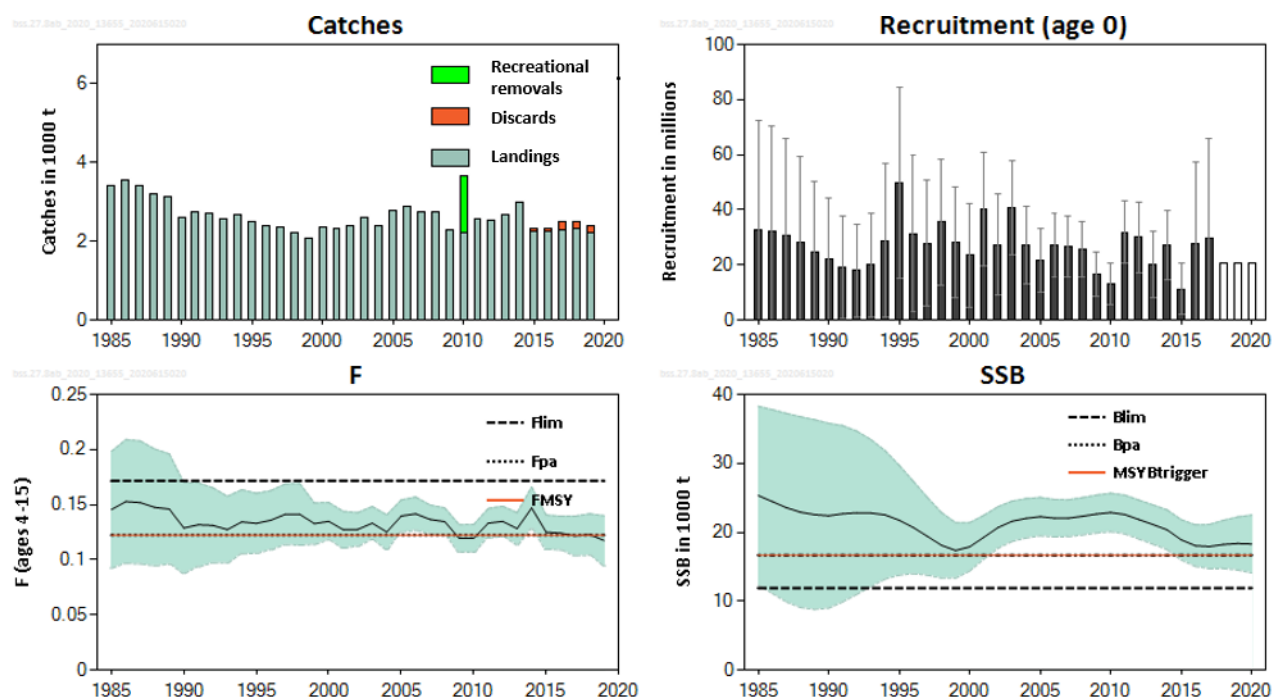


Figure 1 Sea bass in divisions 8.a–b. Summary of the stock assessment. Commercial landings (with discards only included since 2015), and recreational removals (only presented for 2010, where the data are available), including 5% mortality of released fish. Fishing mortality (F) is shown for the combined commercial (based on landings only) and recreational fisheries. Assumed recruitment values are not shaded. Recruitment (R), F, and spawning-stock biomass (SSB) are indicated with 95% confidence intervals.

Stock and exploitation status

Table 1 Sea bass in divisions 8.a–b. State of the stock and the fishery relative to reference points.

		Fishing pressure			Stock size		
		2017	2018	2019	2018	2019	2020
Maximum sustainable yield	F_{MSY}	✓	✓	✓ Below	MSY $B_{trigger}$	✓	✓ Above trigger
Precautionary approach	F_{pa}, F_{lim}	✓	✓	✓ Harvested sustainably	B_{pa}, B_{lim}	✓	✓ Full reproductive capacity
Management plan	F_{MGT}	—	—	— Not applicable	B_{MGT}	—	— Not applicable

Catch scenarios

Table 2 Sea bass in divisions 8.a–b. The basis for the catch scenarios.

Variable	Value	Notes
$F_{\text{ages 4–15}} (2020)$	0.115	Total F : Average $F_{2017–2019}$ scaled to F_{2019} (0.090) for the commercial fishery, plus $F_{\text{rec}}=0.025$ for the recreational fishery accounting for a reduced bag limit in 2020.
SSB (2021)	17110	From the short-term forecast; in tonnes.
$R_{\text{age 0}} (2018–2020)$	20650	Geometric mean (2008–2015); in thousands.
Total catch (2020)	2785	Fishing at $F_{\text{ages 4–15}} (2020)$; in tonnes.
Commercial landings (2020)	2162	Short-term forecast; in tonnes.
Commercial discard rate (2020)	4.2	%; discard rate relative to total catch (commercial and recreational) for the period 2015–2019.
Recreational removals (2020)	623	Short-term forecast; in tonnes.

Table 3 Sea bass in divisions 8.a–b. Annual catch scenarios. All weights are in tonnes.

Basis	Total catch ^ (2021)	Commer- cial landings * (2021)	Recrea- tional removals * (2021)	Commer- cial discards (2021)	Total F (2021)	F* Commer- cial landings (2021)	F* Recrea- tional removals (2021)	SSB (2022)	% SSB change ^^	% advice change ^^^
ICES advice basis										
EU MAP #: F_{MSY}	3108	2311	666	131	0.123	0.096	0.027	16964	–0.85	23
$F = \text{MAP}$ $F_{\text{MSY lower}}$	2966	2206	635	125	0.117	0.091	0.026	17066	–0.25	23
$F = \text{MAP}$ $F_{\text{MSY upper}}$	3770	2804	808	158	0.151	0.118	0.033	16485	–3.7	23
Other scenarios										
$F = 0$	0	0	0	0	0.000	0.000	0.000	19229	12.4	–100
$F = F_{\text{pa}}$	3108	2311	666	131	0.123	0.096	0.027	16964	–0.85	23
$F = F_{\text{lim}}$	4253	3162	912	179	0.172	0.134	0.038	16138	–5.7	68
$\text{SSB}_{2022} = B_{\text{lim}}$	10224	7592	2203	429	0.470	0.370	0.103	11920	–30	304
$\text{SSB}_{2022} = B_{\text{pa}}$	3489	2594	748	147	0.139	0.108	0.030	16688	–2.5	38
$\text{SSB}_{2022} =$ $\text{MSY } B_{\text{trigger}}$	3489	2594	748	147	0.139	0.108	0.030	16688	–2.5	38
$F = F_{2019} = F_{\text{sq}}$	2921	2172	626	123	0.115	0.090	0.025	17099	–0.06	15.3

^ Includes projected commercial landings, recreational removals, and commercial discards, computed assuming an average ratio of 4.2%. “Projected landings” is the predicted landed catch above the minimum conservation reference size. “Projected discards” refers to landings below the minimum conservation reference size and discards.

^^ SSB 2022 relative to SSB 2021.

^^^ Advice value for 2021 relative to the corresponding 2020 values (MAP advice of 2533, 2417, and 3075 tonnes, respectively; other values are relative to F_{MSY}).

* The split of commercial landings and recreational removals, and F , in the short-term forecast account for the new recreational removals’ multiplier in 2020, which corresponds to a reduced two fish-bag limit in 2020.

EU multiannual plan (MAP; EU, 2019).

The advised catch for 2021 is increased compared to the 2020 advice, owing to improved recruitment in recent years, an increase in the forecast SSB and the advice for 2021 being provided based on the unreduced F_{MSY} . Furthermore, discards which were considered negligible previously are now estimated to account for 4.2% and are included in the catch advice.

Quality of the assessment

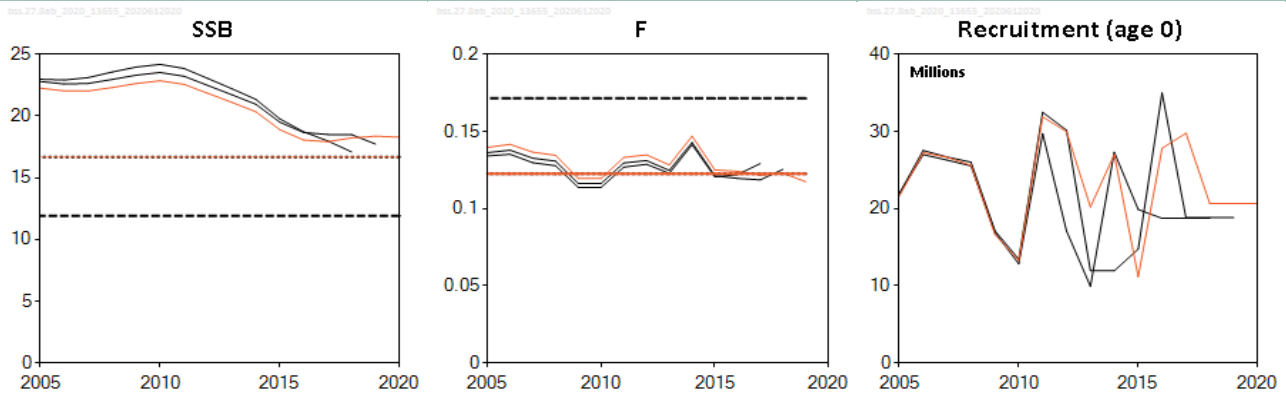


Figure 2 Sea bass in divisions 8.a–b. Historical assessment results. For each line in the recruitment plot, the last three values are the geometric mean (2008–2015).

History of the advice, catch, and management

Table 4 Sea bass in divisions 8.a–b. History of ICES advice, the agreed TAC, and ICES estimates of commercial landings, commercial discards, and recreational removals. All weights are in tonnes.

Year	ICES advice *	Catch corresponding to advice *	Agreed TAC	Official commercial landings **	ICES commercial landings	ICES commercial discards ##	ICES recreational removals ^^^
2000	-	-	none	2147	2362		
2001	-	-	none	2091	2306		
2002	No increase in effort or F	-	none	2113	2392		
2003	No increase in effort or F	-	none	2931	2616		
2004	No increase in effort or F	-	none	2657	2380		
2005	-	-	none	3258	2796		
2006	-	-	none	3487	2875		
2007	-	-	none	3060	2751		
2008	-	-	none	1653	2745		
2009	-	-	none	2534	2278		
2010	-	-	none	2489	2229		1430
2011	-	-	none	2848	2575		
2012	No increase in catch	-	none	2535	2549		
2013	20% reduction in catches (last 3-year average)	< 6000*	none	2660	2685		
2014	20% reduction in catches (last 3-year average)	< 1890^	none	3015	2991		

Year	ICES advice *	Catch corresponding to advice *	Agreed TAC	Official commercial landings **	ICES commercial landings	ICES commercial discards ##	ICES recreational removals ^^^
2015	Same advice as last year	< 1890 ^	none	2287	2264	68	
2016	Precautionary approach	< 2634 ^	none	2206	2252	65	
2017	Precautionary approach	< 2634 ^	none	2218	2295	196	
2018	Precautionary approach	≤ 2440 ^	none	2288	2338	155	
2019	MSY approach (commercial + recreational)	≤ 2495	none	2187 ^^	2227 ^^	183 ^^	
2020	Management plan ***	2533 (range 2417–3075)	none				
2021	Management plan ***	3108 (range 2966–3770)	none				

* ICES advice prior to 2014 was for European sea bass in the Northeast Atlantic. Since 2014, the advice is for sea bass in divisions 8.a–b.

** Official landings were extracted from the ICES official statistics webpage for sea bass in divisions 8.a and 8.b. The difference between the official and ICES landings values are mainly due to the French landing data that come from a separate analysis of logbooks, auctions, and VMS data from 2000 onwards. From 2011, data from this method are reported as official landings.

*** Catches corresponding to F_{MSY} , EU MAP range in brackets (MAP; EU, 2019).

^ Catch advice for commercial catch only.

^^ Preliminary.

^^^ Recreational removals were only observed in 2010. Estimates derived from the 2010 data for the time-series are shown in Table 5.

Values updated in 2020.

Summary of the assessment

Table 5 Sea bass in divisions 8.a–b. Assessment summary. All weights are in tonnes; recruitment in thousands.

Year	Recruitment			Spawning-stock biomass			Commercial landings	Recreational removals *	Total F ages 4–15			F ages 4–15 commercial catch	F ages 4–15 recreational removals
	age 0	High	Low	SSB	High	Low			F	High	Low		
1985	32821	72502	0	25326	38268	12384	3420	1482	0.146	0.198	0.093	0.102	0.043
1986	32224	70564	0	24449	37786	11112	3549	1435	0.153	0.21	0.097	0.109	0.043
1987	30621	66056	0	23563	37239	9888	3417	1401	0.152	0.21	0.096	0.108	0.044
1988	28129	59442	0	22911	36748	9074	3217	1382	0.148	0.20	0.095	0.104	0.044
1989	24550	50500	0	22560	36319	8801	3144	1374	0.146	0.196	0.096	0.102	0.044
1990	21912	44026	0	22389	35793	8985	2621	1382	0.129	0.170	0.088	0.085	0.044
1991	19176	37627	724	22679	35456	9902	2734	1393	0.132	0.170	0.094	0.088	0.044
1992	18034	34899	1169	22823	34661	10986	2709	1389	0.131	0.165	0.097	0.087	0.044
1993	20061	38920	1202	22782	33430	12134	2552	1368	0.127	0.158	0.097	0.083	0.044
1994	28829	56714	944	22523	31844	13202	2668	1328	0.134	0.164	0.105	0.090	0.044
1995	49829	84422	15236	21743	29709	13777	2492	1266	0.133	0.160	0.106	0.088	0.045
1996	31323	59555	3091	20691	27404	13978	2402	1198	0.136	0.163	0.109	0.091	0.045
1997	27830	50639	5022	19404	25042	13767	2358	1140	0.141	0.169	0.114	0.096	0.045
1998	35492	58465	12519	18098	22850	13346	2231	1126	0.141	0.169	0.113	0.095	0.046
1999	28094	48337	7850	17363	21398	13328	2091	1169	0.133	0.152	0.114	0.087	0.046
2000	23530	42400	4661	17886	21393	14378	2362	1258	0.135	0.152	0.118	0.089	0.046
2001	40217	60780	19653	19271	22451	16091	2306	1336	0.127	0.144	0.111	0.081	0.046
2002	27352	45781	8923	20680	23696	17663	2392	1391	0.128	0.143	0.112	0.081	0.046
2003	40700	57690	23710	21590	24517	18662	2616	1419	0.133	0.148	0.118	0.087	0.046
2004	27262	41267	13258	22023	24879	19167	2380	1426	0.125	0.141	0.110	0.079	0.046
2005	21645	33381	9908	22262	25048	19475	2796	1427	0.140	0.154	0.125	0.093	0.046
2006	27261	38905	15617	22042	24756	19327	2875	1430	0.142	0.157	0.127	0.095	0.046
2007	26657	37633	15680	22038	24714	19362	2751	1443	0.137	0.150	0.124	0.090	0.046
2008	25619	35580	15659	22316	25019	19613	2745	1454	0.135	0.147	0.122	0.088	0.046
2009	16652	24766	8537	22641	25393	19889	2278	1450	0.120	0.132	0.107	0.073	0.046
2010	13276	20768	5784	22864	25651	20077	2229	1430	0.120	0.132	0.107	0.073	0.046
2011	31900	43198	20601	22576	25383	19770	2575	1394	0.133	0.147	0.120	0.087	0.046
2012	29974	42611	17337	21840	24663	19017	2549	1346	0.135	0.149	0.121	0.089	0.046
2013	20219	32173	8266	21109	23954	18264	2685	880	0.128	0.143	0.114	0.097	0.032
2014	27030	39517	14542	20355	23239	17472	2991	824	0.147	0.166	0.128	0.116	0.031

Year	Recruitment			Spawning-stock biomass			Commercial landings	Recreational removals *	Total F ages 4–15			F ages 4–15 commercial catch	F ages 4–15 recreational removals
	age 0	High	Low	SSB	High	Low			F	High	Low		
2015	11173	20480	1867	18900	21830	15970	2264	782	0.125	0.141	0.110	0.094	0.031
2016	27817	57233	0	18058	21069	15047	2252	778	0.124	0.140	0.109	0.093	0.031
2017	29794	65761	0	17929	21129	14728	2295	740	0.122	0.140	0.104	0.092	0.029
2018	20650 **			18232	21731	14734	2338	747	0.123	0.142	0.104	0.093	0.030
2019	20650 **			18369	22213	14524	2227	697	0.118	0.140	0.095	0.090	0.028
2020	20650 **			18294	22494	14093							

* Recreational removals are estimates derived from the 2010 observed data.

** Geometric mean 2008–2015.

Sources and references

EU. 2019. Regulation (EU) 2019/472 of the European Parliament and of the Council of 19 March 2019 establishing a multiannual plan for stocks fished in the Western Waters and adjacent waters, and for fisheries exploiting those stocks, amending Regulations (EU) 2016/1139 and (EU) 2018/973, and repealing Council Regulations (EC) No 811/2004, (EC) No 2166/2005, (EC) No 388/2006, (EC) No 509/2007 and (EC) No 1300/2008. Official Journal of the European Union, L 83. 17 pp. <http://data.europa.eu/eli/reg/2019/472/oj>.

ICES. 2020. Working Group for the Bay of Biscay and the Iberian Waters Ecoregion (WGBIE). ICES Scientific Reports. 2:49. <http://doi.org/10.17895/ices.pub.6033>.

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Annex 1

ICES Advice on fishing opportunities, catch, and effort
Bay of Biscay and the Iberian Coast ecoregion
Published 28 June 2019

Seabass (*Dicentrarchus labrax*) in divisions 8.a–b (northern and central Bay of Biscay)

ICES advice on fishing opportunities

ICES advises that when the EU multiannual plan (MAP) for Western waters and adjacent waters is applied, catches in 2020 that correspond to the F ranges in the MAP are between 2417 tonnes and 3075 tonnes. According to the MAP, catches higher than those corresponding to F_{MSY} (2533 tonnes) can only be taken under conditions specified in the MAP while the entire range is considered precautionary when applying the ICES advice rule.

Stock development over time

The spawning-stock biomass (SSB) has declined since 2010 and is now just above $MSY B_{trigger}$. The fishing mortality (F) has fluctuated around F_{MSY} since 2000 and is now just above F_{MSY} . The recruitment (R) is variable over time. The lowest values in the time-series have occurred in the recent period.

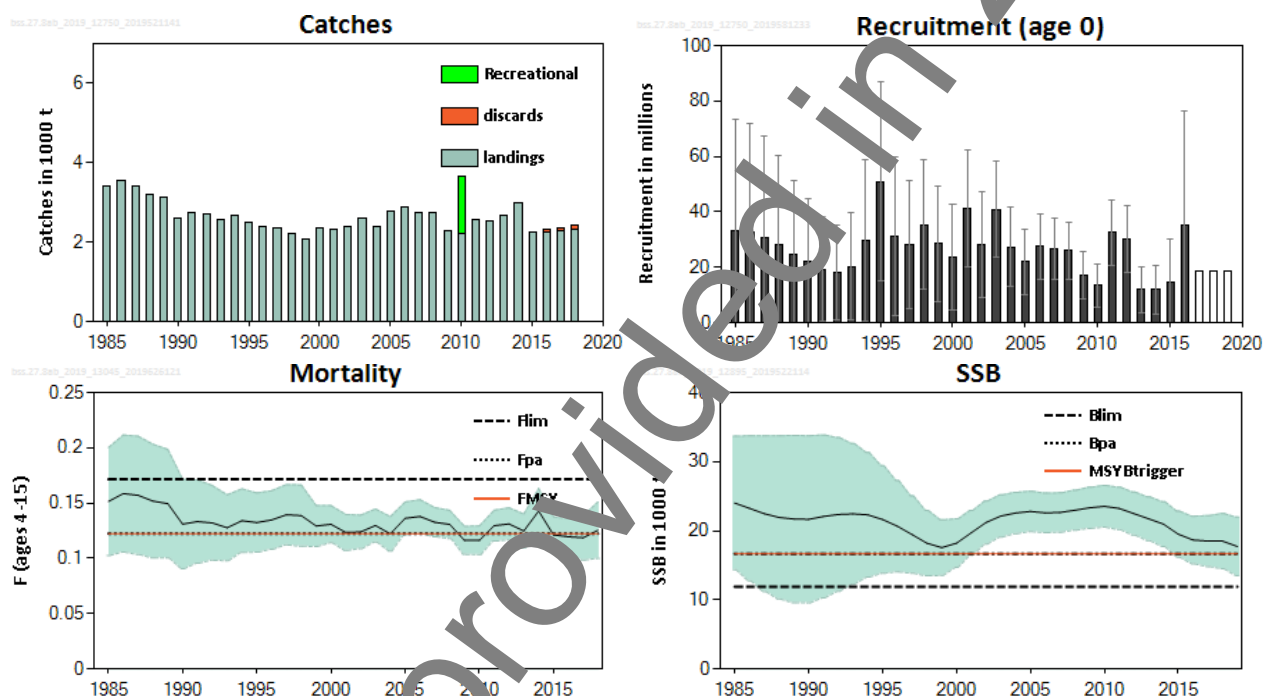


Figure 1 Seabass in divisions 8.a–b. Summary of the stock assessment (weights in thousand tonnes). Commercial landings (with discards only included in 2016, 2017 and 2018), and recreational removals (only presented for 2010, where the data are available), including 5% mortality of released fish. Fishing mortality is shown for the combined commercial and recreational fisheries. Assumed recruitment values are not shaded. Recruitment, F and SSB are shown with 95% confidence intervals (i.e. ± 2 times standard deviations).

Stock and exploitation status

ICES assesses that fishing pressure on the stock is above F_{MSY} , and spawning stock size is just above $MSY B_{trigger}$.

Table 1 Seabass in divisions 8.a–b. State of the stock and fishery relative to reference points.

		Fishing pressure			Stock size		
		2016	2017	2018	2017	2018	2019
Maximum sustainable yield	F_{MSY}	✓	✓	✗ Above	$MSY B_{trigger}$	✓	✓ Above trigger
Precautionary approach	F_{pa}, F_{lim}	✓	✓	⚠ Increased risk	B_{pa}, B_{lim}	✓	✓ Full reproductive capacity
Management plan	F_{MGT}	✓	✓	✓ Within the range	B_{MGT}	✓	✓ Above trigger

Catch scenarios

Table 2 Seabass in divisions 8.a–b. The basis for the catch scenarios.

Variable	Value	Notes
F _{ages 4–15} (2019)	0.121	F _{sq} ; F _{average(2016–2018)} scaled to 2018; commercial fishery F = 0.092; recreational fishery F = 0.029
SSB (2020)	15 937	Tonnes; from the short-term forecast
R _{age 0} (2017–2019)	18 827	Thousands; geometric mean (2008–2014)
Total catch (2019)	2723	Tonnes; fishing at F _{sq}
Wanted commercial catch (2019)	2065	Tonnes; short-term forecast
Unwanted commercial catch (2019)	Negligible	Tonnes; estimated to be 3.37%
Recreational removals (2019)	658	Tonnes; short-term forecast

Table 3 Seabass in divisions 8.a–b. Annual catch scenarios. All weights are in tonnes.

Basis	Total catch ^ (2020)	Commercial landings * (2020)	Recreational removals * (2020)	Total F (2020)	F * commercial landings (2020)	F * recreational removals (2020)	SSB (2021)	% SSB change ^^	% Advice change ^^^
ICES advice basis									
EU MAP#: F _{MSY} × SSB ₂₀₂₀ /MSY B _{trigger}	2533	1914	619	0.117	0.089	0.028	15308	–3.9	1.5
F = MAP (SSB ₂₀₂₀ /MSY B _{trigger}) × F _{MSY lower}	2417	1827	590	0.111	0.085	0.026	15397	–3.4	–3.1
F = MAP F (SSB ₂₀₂₀ /MSY B _{trigger}) × F _{MSY upper}	3075	2323	752	0.154	0.110	0.034	14891	–6.6	23.2
Other scenarios									
MSY approach = (SSB ₂₀₂₀ /MSY B _{trigger}) × F _{MSY}	2533	1914	619	0.117	0.089	0.028	15308	–3.9	1.5
MSY approach = F _{MSY}	2645	1999	646	0.123	0.093	0.029	15221	–4.5	6.0
F = 0	0	0	0	0	0	0	17274	8.4	–100
F = F _{pa}	2645	1999	646	0.123	0.093	0.029	15221	–4.5	6.0
F = F _{lim}	3619	2834	885	0.172	0.131	0.041	14473	–9.2	45.0
SSB ₂₀₂₁ = B _{lim}	6994	5275	1715	0.362	0.276	0.086	11920	–25.2	180.3
SSB ₂₀₂₁ = B _{pa}	751	567	183	0.033	0.025	0.008	16688	4.7	–69.9
SSB ₂₀₂₁ = MSY B _{trigger}	751	567	183	0.033	0.025	0.008	16688	4.7	–69.9
F = F ₂₀₁₈ = F _{sq}	2620	1980	640	0.121	0.092	0.029	15241	–4.4	5.0
F _{MSY lower}	2525	1908	617	0.117	0.089	0.028	15314	–3.9	1.2
F _{MSY upper}	3110	2425	785	0.151	0.115	0.036	14787	–7.2	28.6

^ Includes commercial landings and recreational removals.

^^ SSB 2021 relative to SSB 2020.

^^^ Advice value 2020 relative to advice value 2019.

* The split of commercial landings and recreational removals, and F, in the short-term forecast is based on the proportion observed in 2018.

MAP multiannual plan (EU, 2019).

The total catch advised for 2020 shows an increase of 1.5% compared to 2019, in line with a perception of the stock size increase in comparison to last year.

Basis of the advice

Table 4 Seabass in divisions 8.a–b. The basis of the advice.

Advice basis	Management plan approach
Management plan	<p>The EU multiannual plan (MAP) for stocks in the Western Waters and adjacent waters applies to this stock. The plan specifies conditions for setting fishing opportunities depending on stock status and making use of the F_{MSY} range for the stock.</p> <p>In accordance with the MAP, catches higher than those corresponding to F_{MSY} can only be taken providing SSB is greater than $MSY B_{trigger}$, and one of the following conditions is met:</p> <ul style="list-style-type: none"> a) if it is necessary for the achievement of objectives of mixed fisheries; b) if it is necessary to avoid serious harm to a stock caused by intra- or inter-species stock dynamics; c) in order to limit variations in fishing opportunities between consecutive years to not more than 20%. <p>ICES considers that the F_{MSY} range for this stock used in the MAP is precautionary.</p> <p>Full details of the plan are described in EU (2019).</p>

Quality of the assessment

Data after 2000 on commercial catch were used to rescale historical commercial catch and they are now considered to be representative of the time-series.

For recreational removals the fishing pressure estimate (Figure 2) is based on French data from 2010. This was rescaled in 2012 and 2017 following changes in management rules. Improved information on recreational removals would improve the quality of the assessment and advice.

There are no scientific surveys available to provide recruitment information from the Bay of Biscay. Recruitment estimates from the model are, therefore, uncertain; indices are needed to address this data gap. A pilot survey, conducted by France in the Bay of Biscay in 2016, 2017, and 2018, is also expected for 2019. ICES recommends that this survey be continued in order to develop a time-series.

Stock identity remains poorly understood, and tagging and genetics studies are ongoing.

This is the second year that the advice is based on a category 1 assessment (ICES, 2018a,2018b).

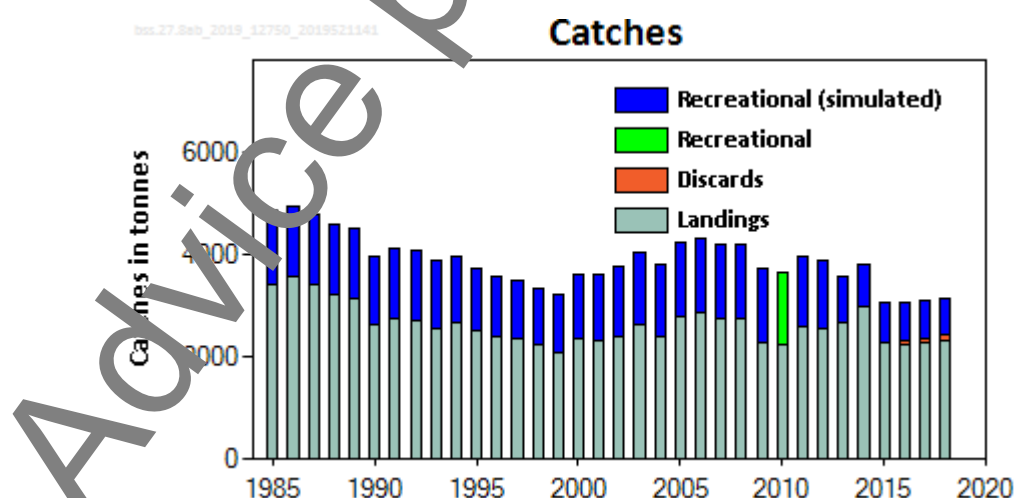


Figure 2 Seabass in divisions 8.a–b. Make-up of the catch over time. Commercial landings; discards in 2016, 2017, and 2018; observed recreational removals (only presented for 2010, where the data are available), including 5% mortality of released fish; and ICES estimated recreational removals (1985–2009, 2011–2018).

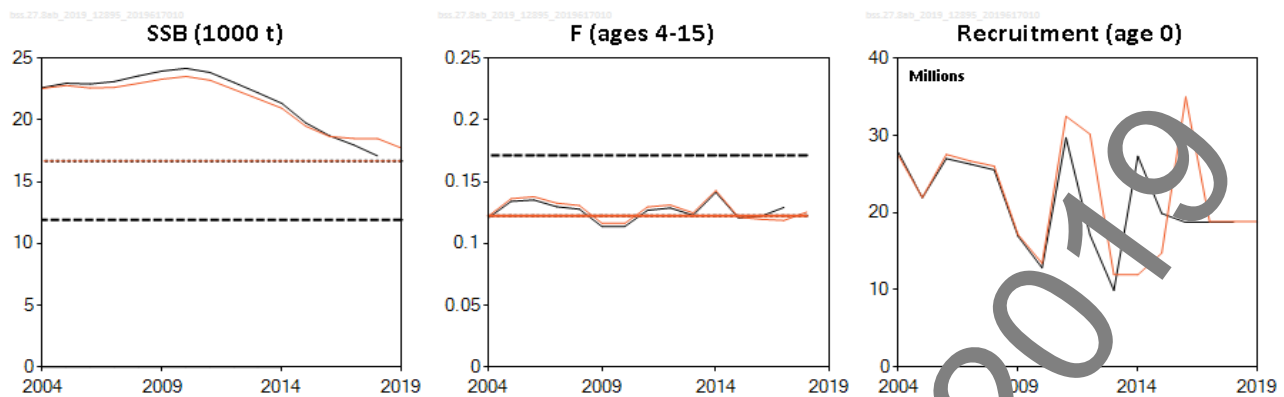


Figure 3 Seabass in divisions 8.a–b. Historical assessment results. For each line in the recruitment plot, the last three values are assumed to be the geometric mean (2008–2014).

Issues relevant for the advice

The stock was benchmarked during the Benchmark Workshop on Sea Bass (WKBASS; ICES, 2018a) and the Inter-benchmark Protocol on Sea Bass (IBPBass; ICES, 2018d). Uncertainties around recruitment remain high throughout the time series.

Reference points

Table 5 Seabass in divisions 8.a–b. Reference points. All weights are in tonnes.

Framework	Reference point	Value	Technical basis	Source
MSY approach	MSY $B_{trigger}$	16 688	B_{pa}	ICES (2018d)
	F_{MSY}	0.123	The F that maximizes median long-term yield in stochastic simulations under constant F exploitation; constrained by the requirement that $F_{MSY} \leq F_{pa}$	ICES (2018d)
Precautionary approach	B_{lim}	11 920	$B_{pa} / \exp(CV \times 1.645)$	ICES (2018d)
	B_{pa}	16 888	lowest observed SSB	ICES (2018d)
	F_{lim}	0.172	The F that in equilibrium gives a 50% probability of $SSB < B_{lim}$	ICES (2018d)
	F_{pa}	0.123	$F_{pa} = F_{lim} / \exp(CV \times 1.645)$	ICES (2018d)
Management plan	MAP MSY $B_{trigger}$	16 688	MSY $B_{trigger}$	EU (2019)
	MAP B_{lim}	11 920	B_{lim}	EU (2019)
	MAP F_{MSY}	0.123	F_{MSY}	EU (2019)
	MAP range F_{lower}	0.117	Consistent with ranges provided by ICES (2018a), resulting in no more than 5% reduction in long-term yield compared with MSY.	ICES (2018a) and EU (2019)
	MAP range F_{upper}	0.151	Consistent with ranges provided by ICES (2018a), resulting in no more than 5% reduction in long-term yield compared with MSY.	ICES (2018a) and EU (2019)

Basis of the assessment

Table 6 Seabass in divisions 8.a–b. The basis of the assessment.

ICES stock data category	1 (ICES, 2018c).
Assessment type	Age- and length-based analytical assessment (Stock Synthesis 3, NOAA toolbox) that uses landings and recreational removals (ICES, 2018a, 2019) in the assessment and forecast.
Input data	Commercial landings (1985–2018), age-at-length and length frequencies from catch sampling; growth and maturity data from sampling of commercial catches and surveys; natural mortality (0.24) inferred from life history parameters and maximum observed ages); recreational removals and length composition for 2010 estimated from a recreational fishery survey; French commercial LME series inferred from logbook data.
Discards and bycatch	Commercial discards estimated at 3.37% of the total catch (commercial catch + recreational removals). Discards are considered negligible and are not included in the stock assessment.
Indicators	None.
Other information	Last benchmarks in 2018 (ICES, 2018a; ICES, 2018d).
Working group report	Working Group for the Bay of Biscay and the Iberian Waters Ecoregion (WGE).

Information from stakeholders

Since 2017, all French commercial fishing activities in the Bay of Biscay (ICES divisions 8.a, b, and d) have been subject to national management measures. These are aimed at limiting both fishing effort and capacity of the commercial fishery, at levels compatible with the ICES recommendations. These concern annual and periodic limitations of fishing opportunities, at the level of both the fishery and individual vessels (CNPMM, 2019).

History of the advice, catch, and management

Table 7 Seabass in divisions 8.a–b. History of ICES advice, the agreed TAC, and ICES estimates of commercial landings, commercial discards and recreational removals. All weights are in tonnes.

Year	ICES advice *	Catch corresponding to advice *	Agreed TAC	Official commercial landings **	ICES commercial landings	ICES commercial discards	ICES recreational removals ***
2000	-	-	none	2147	2362		
2001	-	-	none	2091	2306		
2002	No increase in effort or F	-	none	2113	2397		
2003	No increase in effort or F	-	none	2931	2616		
2004	No increase in effort or F	-	none	2657	2520		
2005	-	-	none	3258	2790		
2006	-	-	none	3487	2879		
2007	-	-	none	3060	2751		
2008	-	-	none	1653	2745		
2009	-	-	none	2534	2278		
2010	-	-	none	2489	2229		1430
2011	-	-	none	284	2575		
2012	No increase in catch	-	none	2535	2549		
2013	20% reduction in catches (last 3-year average)	< 6000*	none	2660	2685		
2014	20% reduction in catches (last 3-year average)	< 1890^	none	3015	2991		
2015	Same advice as last year	< 1890^	none	2287	2264		
2016	Precautionary approach	< 2634^	none	2206	2252	62	
2017	Precautionary approach	< 2634^	none	2218	2295	74	
2018	Precautionary approach	≤ 2440^	none	2288^^	2316^^	106	
2019	MSY approach (commercial+recreational)	≤ 2495	none				
2020	Management plan	2533 (range 2417–3075)	none				

* ICES advice prior to 2014 was for European seabass in the Northeast Atlantic. Since 2014, the advice is for seabass in divisions 8.a–b.

** Official landings were extracted from the ICES official statistics webpage for BSS and divisions 8.a and 8.b. The difference between official and ICES landings values are mainly due to the French landing data that come from a separate analysis of logbooks, auctions, and VMS data from 2000 onwards. From 2011 onwards, data from this method are reported as official landings.

*** EU multiannual plan (MAP) for the Western Waters (EU, 2019).

^ Catch advice for commercial catch only.

^^ Preliminary.

^^^ Recreational removals were only observed in 2010. Estimates derived from the 2010 data for the time-series are found in Table 10.

Catches corresponding to F_{MSY} , EU MAP range in brackets.

History of the catch and landing

Table 8 Seabass in division 8.a–b. Catch distribution by fleet, landings, discards, and recreational removals in 2018 as estimated by ICES.

Total catch *	Commercial landings							Commercial discards	Recreational removals *
3142 tonnes	36% Nets	28% Lines	23% Bottom trawl	8.0% Pelagic trawl	0.51% Others	3.7% Danish seine	1.28% Purse seine	106 tonnes	720 tonnes
	2316 tonnes								

*Estimated

Table 9 Seabass in divisions 8.a–b. History of the official commercial landings presented for each country participating in the fishery. History of the total ICES estimated commercial landings. All weights are in tonnes.

Year	Belgium	France	Netherlands	Spain	UK (England, Wales, N. Ireland, & Scotland)	Total official landings	Total ICES estimated landings
1985	0	2477	0	0	0	2477	3420
1986	0	2606	0	0	0	2606	3549
1987	0	2474	0	0	5	2479	3417
1988	0	2274	0	0	15	2289	3217
1989	0	2201	0	0	0	2201	3144
1990	0	1678	0	0	0	1678	2621
1991	0	1774	0	17	0	1791	2734
1992	0	1752	0	14	0	1766	2709
1993	0	1595	0	14	0	1609	2552
1994	0	1708	0	17	0	1725	2668
1995	0	1549	0	0	0	1549	2492
1996	0	1459	0	0	0	1459	2402
1997	0	1415	0	0	0	1415	2358
1998	0	1261	0	27	0	1288	2231
1999	0	0	0	11	0	11	2091
2000	0	2080	0	67	0	2147	2362
2001	0	2020	3	68	0	2091	2306
2002	0	1937	0	176	0	2113	2392
2003	0	2812	0	119	0	2931	2616
2004	0	2561	0	96	0	2657	2380
2005	0	3184	0	74	0	3258	2796
2006	0	3318	0	67	2	3487	2875
2007	1	2984	0	74	1	3060	2751
2008	0	1508	0	145	0	1653	2745
2009	1	2339	0	111	0	2534	2278
2010	0	2322	0	65	2	2489	2229
2011	1	2536	0	311	0	2848	2575
2012	1	2325	NA	204	5	2535	2549
2013	0	2504	0	156	0	2660	2685
2014	0	2926	0	89	0	3015	2991
2015	0	2216	0	71	0	2287	2264
2016	0	2121	0	85	0	2206	2252
2017	0	2146	0	72	0	2218	2295
2018 *	0	2204	0	84	0	2288	2316

*Preliminary.

NA = not available.

Summary of the assessment

Table 10 Seabass in divisions 8.a–b. Assessment summary. All weights are in tonnes and recruitment in thousands.

Year	Recruitment Age 0	High	Low	SSB	High	Low	Commercial landings	Recreational removals *	F Ages 4–5	High	Low
1985	32984	73465	0	24019	33676	14362	3420	1455	0.15	0.20	0.103
1986	32477	71715	0	23248	33737	12759	3549	1408	0.159	0.21	0.106
1987	30912	67216	0	22474	33731	11216	3417	1374	0.157	0.21	0.104
1988	28400	60459	0	21936	33751	10120	3217	1355	0.152	0.20	0.100
1989	24755	51258	0	21703	33806	9599	3144	1347	0.150	0.199	0.100
1990	22083	44638	0	21656	33748	9564	2621	1355	0.131	0.172	0.091
1991	19312	38102	523	22073	33855	10291	2734	1366	0.133	0.171	0.096
1992	18178	35369	988	22351	33477	11226	2709	1362	0.132	0.166	0.098
1993	20317	39689	945	22441	32610	12271	2552	1347	0.128	0.158	0.098
1994	29655	58832	479	22301	31318	13284	2668	1341	0.134	0.163	0.105
1995	50986	86812	15161	21625	29408	13842	2492	1239	0.132	0.159	0.106
1996	31227	59963	2491	20659	27267	14051	2401	1171	0.135	0.161	0.108
1997	28113	51329	4898	19444	25025	13863	2351	1113	0.140	0.167	0.112
1998	35297	58585	12008	18205	22929	13481	2331	1099	0.139	0.166	0.111
1999	28427	49014	7841	17557	21578	13537	2091	1142	0.129	0.148	0.111
2000	23690	42926	4454	18203	21722	14684	2362	1233	0.131	0.148	0.114
2001	41150	62334	19965	19711	22948	16474	2306	1313	0.124	0.140	0.107
2002	28083	47070	9096	21196	24307	18085	1392	1372	0.124	0.139	0.109
2003	40826	58219	23433	22137	25180	19094	2616	1404	0.130	0.145	0.115
2004	27397	41639	13156	22569	25555	19584	2380	1419	0.122	0.138	0.107
2005	21962	33920	10005	22802	25726	15778	2796	1422	0.136	0.151	0.122
2006	27548	39416	15680	22599	25461	16737	2875	1425	0.138	0.153	0.123
2007	26690	37857	15524	22645	25499	16801	2751	1440	0.133	0.146	0.120
2008	26029	36282	15775	22974	25868	20071	2745	1451	0.131	0.144	0.118
2009	17141	25550	8732	23319	26281	20551	2278	1449	0.116	0.129	0.104
2010	13432	21111	5752	23535	26561	20508	2229	1430	0.116	0.129	0.103
2011	32501	44221	20780	23232	26305	20162	2575	1394	0.130	0.144	0.116
2012	30177	42288	18067	22478	25533	19364	2549	1345	0.131	0.146	0.117
2013	11949	20132	3765	21727	24891	18558	2685	879	0.125	0.140	0.109
2014	11940	20639	3241	20563	24806	17720	2991	825	0.143	0.163	0.123
2015	14746	29940	0	19505	22827	16182	2264	783	0.121	0.138	0.105
2016	35004	76160	0	18566	22107	15225	2252	757	0.120	0.136	0.103
2017	18827 **			18511	22194	14832	2295	713	0.119	0.139	0.099
2018	18827 **			18598	22492	14504	2316	720	0.126	0.151	0.100
2019	18827 **			17751	21967	13493					

* Recreational removals are estimates derived from the 2010 observed data.

** Geometric mean 2008–2014.

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