

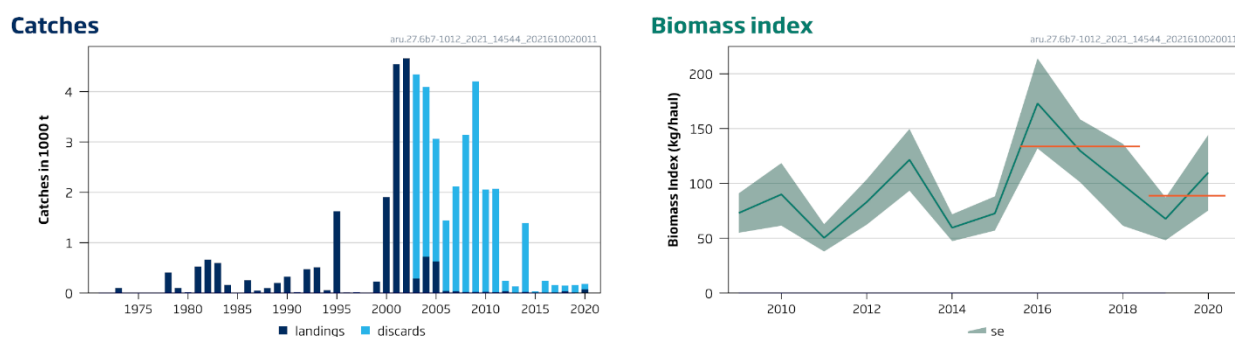
## Greater silver smelt (*Argentina silus*) in subareas 7–10 and 12, and in Division 6.b (other areas)

### ICES advice on fishing opportunities

ICES advises that when the precautionary approach is applied, catches should be no more than 124 tonnes in each of the years 2022 and 2023.

### Stock development over time

ICES cannot assess the stock and exploitation status relative to MSY and precautionary approach (PA) reference points because the reference points are undefined.



**Figure 1** Greater silver smelt in subareas 7–10 and 12, and in Division 6.b. Summary of the stock assessment. Left: catch, discard estimates are only available since 2003. Right: biomass index in  $\text{kg haul}^{-1}$  from the Spanish Porcupine Bank survey. The horizontal orange lines indicate the average of the most recent two years and the previous three years. The shaded areas on the biomass index plot represent standard error intervals.

### Catch scenarios

ICES framework for category 3 stocks was applied (ICES, 2012). The Spanish Porcupine Bank survey was used as an index for the stock development. The advice is based on a comparison of the two latest index values (index A) with the three preceding values (index B), multiplied by recent advice. The index is estimated to have decreased by 34% and thus the uncertainty cap was applied. The stock status relative to candidate reference points is unknown. The precautionary buffer was not applied in 2019 and therefore was considered. The stock status relative to candidate reference points is unknown; therefore, the precautionary buffer was applied in the advice. Discarding rate is 77% of total catch.

**Table 1** Greater silver smelt in subareas 7–10 and 12, and in Division 6.b. The basis for the catch scenarios <sup>^</sup>.

Index A (2019–2020)		89 kg haul <sup>-1</sup>
Index B (2016–2018)		134 kg haul <sup>-1</sup>
Index ratio (A/B)		0.66
Uncertainty cap	Applied	0.8
Advised catches for 2020 and 2021		193 tonnes
Discard rate (2018–2020)		0.77
Precautionary buffer	Applied	0.8
Catch advice *		124 tonnes
Landings corresponding to the catch advice **		28 tonnes
% Advice change ***		-36%

<sup>^</sup> The figures in the table are rounded. Calculations were done with unrounded inputs, and computed values may not match exactly when calculated using the rounded figures in the table.

\* [Advised catches for 2020 and 2021] × [uncertainty cap] × [precautionary buffer]

\*\* [Catch advice] × [1 –discard rate].

\*\*\* Advice value for 2022 and 2023 relative to advice value for 2020 and 2021

Due to the decrease in the index ratio and the application of the precautionary buffer, the advice has decreased by 69 tonnes.

### Basis of the advice

**Table 2** Greater silver smelt in subareas 7–10 and 12, and in Division 6.b. The basis of the advice.

Advice basis	Precautionary approach
Management plan	ICES is not aware of any agreed precautionary management plan for greater silver smelt in this area

### Quality of the assessment

The survey index used for the assessment does not cover the full stock area, but it does correspond to the area where the bulk of the catches in the past 30 years were taken.

ICES considers that the high landings of greater silver smelt seen in the early 2000s may have resulted from the misreporting of other fish species. There is currently no directed fishery, and bycatches of greater silver smelt are discarded in fisheries for other species (primarily hake, monkfish, and megrim).

### Issues relevant for the advice

The stock structure of greater silver smelt is uncertain. The subareas 7–10 and 12 and Division 6.b stock unit was defined in 2015 when ICES revised the greater silver smelt advice units. ICES provides separate advice for three other greater silver smelt stock units (Subarea 14 and Division 5.a; subareas 1, 2, and 4 and Division 3.a; and divisions 5.b and 6.a).

Landings in subareas 7–10 and 12 and Division 6.b are small. Considerable discarding is known to occur in some fisheries on the Porcupine Bank outer shelf and in upper slope fisheries for demersal and deep-water fish. These fisheries do not land greater silver smelt. Targeted fisheries for greater silver smelt that existed prior to 2006 have not operated significantly in these areas since then. It is considered more likely that variations in landings over time reflect market opportunities rather than fish abundance.

This stock is classified as Category 4 in the NEAFC categorization of deep-sea species/stocks. This implies that fisheries are primarily restricted to coastal state Exclusive Economic Zones (EEZs) and therefore management measures are not taken by NEAFC unless complementary to coastal state conservation and management measures (NEAFC, 2016).

## Reference points

No reference points are defined for this stock.

## Basis of the assessment

**Table 3** Greater silver smelt in subareas 7–10 and 12, and in Division 6.b. Basis of the assessment and advice.

ICES stock data category	3 ( <a href="#">ICES, 2021a</a> )
Assessment type	Survey trends-based assessment (ICES, 2021b)
Input data	Spanish Porcupine Bank Bottom Trawl survey (SP-PORC [G5768])
Discards and bycatch	Included in the assessment
Indicators	None
Other information	This stock has not been benchmarked
Working group	Working Group on the Biology and Assessment of Deep-Sea Fisheries Resources ( <a href="#">WGDEEP</a> )

## History of the advice, catch, and management

**Table 4** Greater silver smelt in subareas 7–10 and 12, and in Division 6.b. ICES advice, official landings and TACs. All weights are in tonnes.

Year	ICES advice*	Catch corresponding to advice	EU TAC subareas 3 & 4*	EU TAC subareas 5–7	ICES landings
2003	No fisheries unless data collection on (by)catch, no expansion unless proven to be sustainable	-	1566	6247	288
2004	Biennial	-	1566	6247	722
2005	No fisheries unless accompanied by programmes to collect data on both target and bycatch fish	-	1311	5310	626
2006	Biennial	-	1311	5310	40
2007	The fishery should not be allowed to expand unless it can be shown that it is sustainable	-	1331	5311	36
2008	Biennial	-	1331	5311	20
2009	Same advice as 2007	-	1331	5311	22
2010	Biennial	-	1278	5099	25
2011	The fishery should not be allowed to expand, and a reduction in catches should be considered	-	1176	4691	14
2012	No new advice, same as 2011		108	4316	36
2013	Reduce catches by 10%	31300	1028	4316	1
2014	No new advice, same as 2013	31300	1028	4316	22
2015	Precautionary approach	31300	1028	4316	5
2016	Precautionary approach	15 <sup>^</sup>	-	4316	0
2017	Biennial	15 <sup>^</sup>	-	3884	8
2018	Precautionary approach	≤ 14 <sup>^</sup>	-	4661	36
2019	Precautionary approach (same landings advice as 2018)	≤ 14 <sup>^</sup>	-	4661	7
2020	Precautionary approach	≤ 193	-	3521	76
2021	Precautionary approach (same catch advice as 2020)	≤ 193	-	881	
2022	Precautionary approach	≤ 124			
2023	Precautionary approach (same catch advice as 2022)	≤ 124			

\* Until 2015 the advice was combined for subareas 1, 2, 4, 6, 7, 8, 9, 10, 12, and 14, and divisions 3.a and 5.b.

<sup>^</sup> Advice for 2016–2019 was for landings.

**History of the catch and landings**

There are no landings reported from the NEAFC Regulatory Area

**Table 5** Greater silver smelt in subareas 7–10 and 12, and in Division 6.b. Catch distribution by fleet in 2020 as estimated by ICES.

Catch (2020)	Landings	Discards
183 tonnes	Trawl 100%	107 tonnes
	76 tonnes	

**Table 6** Greater silver smelt in subareas 7–10 and 12, and in Division 6.b. History of the official total landings, landings by area and discards. All weights are in tonnes.

Year	Division 6.b	Subarea 7	Subarea 8	Subarea 9	Subarea 12	Total landings	Discards*
1973		103				103	
1974		0				0	
1975		0				0	
1976		0				0	
1977		1				1	
1978		409				409	
1979		103				103	
1980	13	0				13	
1981	525	0				525	
1982	0	666				666	
1983	4	595				599	
1984	0	163				163	
1985	0	0				0	
1986	0	258				258	
1987	0	50				50	
1988	0	100			0	100	
1989	0	200			0	200	
1990	300	24			0	324	
1991	5	9			0	14	
1992	221	254			0	475	
1993	3	505			6	514	
1994	20	39			0	59	
1995	1114	510			0	1624	
1996	0	10			1	11	
1997	0	12			0	12	
1998	0	0			0	0	
1999	178	50			0	228	
2000	1384	523			2	1909	
2001	130	4415			0	4545	
2002	30	4437	195		0	4662	
2003	126	119	43		0	288	4053
2004	23	47	23		629	722	3375
2005	4	58	202		362	626	2438
2006	0	40	0	0	0	40	1399
2007	0	35	0	1	0	36	2083

Year	Division 6.b	Subarea 7	Subarea 8	Subarea 9	Subarea 12	Total landings	Discards*
2008	9	0	10	1	0	20	3118
2009	0	20	0	2	0	22	4183
2010	0	23	0	2	0	25	2029
2011	0	12	1	1	0	14	2056
2012	0	3	0	2	31	36	203
2013	0	1	0	0	0	1	133
2014	20	1	1	0	0	22	398
2015	0	5	0	0	0	5	29
2016	0	0	0	0	0	0	240
2017	0	8	0	0	0	8	151
2018	0	32	4	0	0	36	104
2019	0	5	2	0	0	7	151
2020	11	63	2	0	0	76	107

\* Discards by Spain and Netherlands from 2003 to 2014 are from before the redefinition of the stock area (subareas 6, 7, and 8). Discard data from 2015 onwards are from Division 6.b and subareas 7–10 and 12.

### Summary of the assessment

**Table 7** Greater silver smelt in subareas 7–10 and 12, and in Division 6.b. Assessment summary. Biomass index from the Spanish Porcupine Bank survey for greater silver smelt. High and low refer to standard errors.

Year	Biomass			Landings	Discards
	kg haul <sup>-1</sup>	Low	High		
2003				288	4053
2004				722	3375
2005				626	2438
2006				40	1399
2007				36	2083
2008				20	3118
2009	72.95	37.69	108.21	22	4183
2010	89.97	34.02	145.91	25	2029
2011	50.32	25.85	74.78	14	2056
2012	83.02	42.52	123.53	36	203
2013	121.50	66.25	176.75	1	133
2014	59.57	35.53	83.61	22	1366
2015	72.56	41.95	103.18	5	29
2016	172.94	92.32	253.55	0	240
2017	129.63	73.41	185.86	8	151
2018	98.72	25.44	172.00	36	113
2019	67.60	48.07	87.13	7	151
2020	109.81	75.28	144.34	76	107

### Sources and references

ICES. 2012. ICES Implementation of Advice for Data-limited Stocks in 2012 in its 2012 Advice. ICES CM 2012/ACOM:68. 42 pp  
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[Download the stock assessment data and figures.](#)

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