

Alfonsinos (*Beryx* spp.) in subareas 1–10, 12, and 14 (the Northeast Atlantic and adjacent waters)

ICES advice on fishing opportunities

ICES advises that when the precautionary approach is applied, landings should be no more than 224 tonnes in each of the years 2021 and 2022. ICES cannot quantify the corresponding catches.

Note: This advice sheet is abbreviated due to the Covid-19 disruption. The previous advice issued for 2019 and 2020 is attached as Annex 1.

Stock development over time

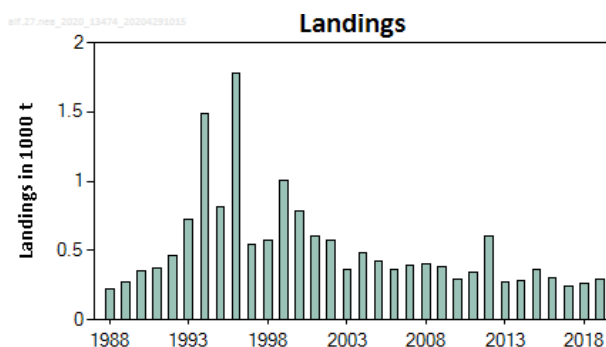


Figure 1 Alfonsinos in the Northeast Atlantic. Landings (thousand tonnes) from the main fishing areas for the two alfonsino species (*Beryx splendens* and *Beryx decadactylus*) combined.

Stock and exploitation status

Table 1 Alfonsinos in the Northeast Atlantic. State of the stock and the fishery relative to reference points.

		Fishing pressure				Stock size				
		2017	2018	2019		2017	2018	2019		
Maximum sustainable yield	F _{MSY}	?	?	?	Unknown	MSY B _{trigger}	?	?	?	Unknown
Precautionary approach	F _{pa} , F _{lim}	?	?	?	Unknown	B _{pa} , B _{lim}	?	?	?	Unknown
Management plan	F _{MGT}	—	—	—	Not applicable	B _{MGT}	—	—	—	Not applicable
Qualitative evaluation	-	?	?	?	Unknown	-	?	?	?	Unknown

Catch scenarios

Table 2 Alfonsinos in the Northeast Atlantic. The basis for the catch scenarios *.

Advised landings for 2019–2020 issued in 2018	224 tonnes
Discard rate	Unknown
Precautionary buffer	Not applied (last applied in 2018)
Landings advice **	224 tonnes
% advice change ***	0%

* The figures in the table are rounded. Calculations were carried out with unrounded inputs and computed values may not match precisely when calculated using the rounded figures in the table.

** Equal to [Advised landings for 2019–2020].

*** Advice value for 2021–2022 relative to the advice value for 2019–2020.

Issues relevant for the advice

In subareas 6–9 and Division 10.a.2, these species are classified as Category 4 in the NEAFC categorization of deep-sea species/stocks, which implies that fisheries are primarily restricted to coastal state exclusive economic zones (EEZs). Therefore, management measures are not taken by NEAFC unless complementary to coastal state conservation and management measures (NEAFC, 2016).

For seamounts and ridges in the NEAFC regulatory area in Subarea 10, these species are classified as Category 3 in the NEAFC categorization of deep-sea species/stocks, which implies that NEAFC requires measures to respond in a timely and adequate manner to new deep-sea species fishing activity within the NEAFC Regulatory Area (NEAFC, 2016).

History of the advice, catch, and management

Table 3 Alfonsinos in the Northeast Atlantic. ICES advice, the agreed TAC, and ICES landings. Weights are in tonnes.

Years	ICES advice	Predicted landings corresp. to advice	Predicted catch corresp. to advice	EU TAC*	ICES landings
2003	Fishery should not be allowed to expand, unless proven to be sustainable and accompanied by programmes to collect data on (by)catch				361
2004	Biennial				485
2005	Fisheries accompanied by programmes to collect data on (by)catch		-	328	422
2006	Biennial		-	328	367
2007	Fishery should not be allowed to expand, unless proven to be sustainable		-	328	396
2008	Biennial		-	328	407
2009	Fishery should not be allowed to expand, unless proven to be sustainable		-	328	383
2010	Biennial		-	328	291
2011	Fisheries should not be allowed to expand, and a reduction in catches should be considered		-	328	340
2012	No new advice, same as 2011		-	328	605
2013	20% Reduction in catches (average of the last 3 years)	-	280	312	272
2014	No new advice, same as 2013	-	280	296	282
2015	Same catch advice as 2013	-	280	296	365
2016	Same advice as 2015	-	280	296	300
2017	Precautionary approach (same value as advised catches for 2016)	≤ 280	-	280	240
2018	Precautionary approach (same value as advised catches for 2016)	≤ 280	-	280	266
2019	Precautionary approach	≤ 224	-	252	294
2020	Precautionary approach	≤ 224	-	252	
2021	Precautionary approach	≤ 224	-		
2022	Precautionary approach (same value as advised catches for 2021)	≤ 224	-		

* TAC for EU vessels within the EU and international waters of subareas 3–10, 12, and 14.

Table 4 Alfonsinos in the Northeast Atlantic. Landings inside and outside the NEAFC regulatory area (RA), as estimated by ICES.

Year	Inside the NEAFC RA (tonnes)	Outside the NEAFC RA (tonnes)	Total landings (tonnes)	Proportion inside the NEAFC RA (%)
2015	141	224	365	39
2016	48	252	300	16.0
2017	0	240	240	0
2018	0	266	266	0
2019	5	289	294	1.70

Summary of the assessment

There is no assessment for alfonosinos in this area.

Sources and references

ICES. 2020. Working Group on the Biology and Assessment of Deep-sea Fisheries Resources (WGDEEP). ICES Scientific Reports, 2:38. <http://doi.org/10.17895/ices.pub.6015>.

NEAFC. 2016. The NEAFC approach to conservation and management of deep-sea species and categorization of deep-sea species/stocks. Adopted at the 35th Annual Meeting, November 2016. <https://www.neafc.org/basictexts>.

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ICES advice on fishing opportunities

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Stock development over time

Two species (*Beryx splendens* and *Beryx decadactylus*) that are often reported in a single group (*Beryx* spp) are considered in this advice. For the two species combined, catches have generally declined since 2000. Species-specific landing trends in the Azores fishery showed similar trends for both species. As these are aggregative species, overall landings depend on the commercial targeting, and landings of the two species combined may not reflect stock abundance.

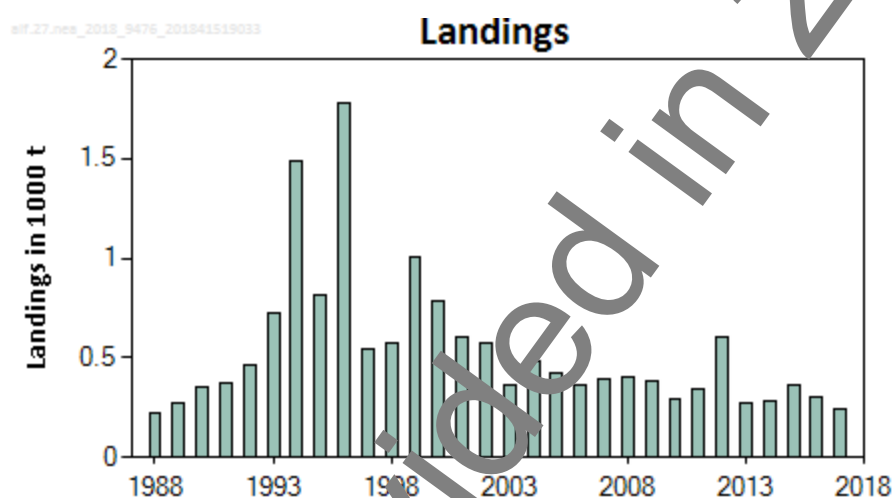


Figure 1 Alfonsinos in the Northeast Atlantic. Landings (tonnes) from the main fishing areas for the two alfonsino species combined.

Stock and exploitation status

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

Table 1 Alfonsinos in the Northeast Atlantic. State of the stock and fishery relative to reference points.

		Fishing pressure				Stock size				
		2015	2016	2017		2015	2016	2017		
Maximum sustainable yield	F_{MSY}	?	?	?	Unknown	MSY $B_{trigger}$?	?	?	Unknown
Precautionary approach	F_{lim}	?	?	?	Unknown	B_{pa}, B_{lim}	?	?	?	Unknown
Management plan	F_{MGT}	—	—	—	Not applicable	B_{MGT}	—	—	—	Not applicable
Qualitative evaluation	-	?	?	?	Unknown	-	?	?	?	Unknown

Catch scenarios

The ICES framework for category 5 stocks was applied (ICES, 2012). For stocks without information on abundance or exploitation, ICES considers that a precautionary reduction of catches should be implemented where there is no ancillary information clearly indicating that the current level of exploitation is appropriate for the stock. The precautionary buffer was last applied in 2012 and therefore was applied again. Discarding is known to take place, but ICES cannot quantify the corresponding catch.

Table 2 Alfonsinos in the Northeast Atlantic. The basis for the catch scenarios*.

Advised landings for 2017–2018 issued in 2017	280 t	
Discard rate	Less than 10%, not quantified for the entire stock	
Precautionary buffer	Applied	0.8
Landings advice**	224 t	
% Advice change ***	-20%	

*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 landings for 2017–2018] × [precautionary buffer].

***Advice value for 2019 relative to advice value for 2018.

The advised landings is lower than that advised for 2018 because the precautionary buffer was applied.

Basis of the advice

Table 3 Alfonsinos in the Northeast Atlantic. The basis of the advice.

Advice basis	Precautionary approach
Management plan	ICES is not aware of any agreed precautionary management plan for alfonsinos in this area.

Quality of the assessment

The uncertainty of the stock structure and general absence of data on species composition of the catches and biological parameters are important limiting factors for the knowledge of these fish stocks.

Survey data are available from the Azores (1995–2017). For *B. decadactylus* the survey abundance indices from the Azores may not be reliable as they are not adjusted for species behaviour (*B. decadactylus* is a highly mobile and aggregative species). The low number of individuals caught annually may not be enough to map the abundance of the species.

Issues relevant for the advice

As a consequence of the spatial distribution of alfonsinos associated with seamounts, their life history and their aggregation behaviour, these species are easily overexploited and can only sustain low rates of exploitation. To prevent depleting localized aggregations that have not yet been mapped and assessed, the exploitation of new seamounts should not be allowed.

ICES estimates discard rates in the Azores (Division 10.a) to be between 1% and 10%.

Reference points

No reference points are defined for this stock.

Basis of the assessment

Table 4 Alfonsinos in the Northeast Atlantic. The basis of the assessment.

ICES stock data category	5 (ICES, 2016)
Assessment type	No assessment (ICES, 2018)
Input data	Landings

Discards and bycatch	Not included, discarding is considered less than 10% in the Azores and unknown in the rest of the areas.
Indicators	None
Other information	Survey and fishery standardized CPUE data are available from the Azores. They are not used in the assessment because they are not considered reliable as a proxy of the abundance for the NE Atlantic.
Working group	Working Group on the Biology and Assessment of Deep-Sea Fisheries Resources (WGDEEP)

Information from stakeholders

There is no additional available information.

History of the advice, catch, and management

Table 5 Alfonsinos in the Northeast Atlantic. ICES advice, the agreed TAC, and ICES landings. Weights are in thousand tonnes

Years	ICES advice	Predicted landings corresp. to advice	Predicted catch corresp. to advice	EU TAC*	ICES landings
2003	Fishery should not be allowed to expand, unless proven to be sustainable and accompanied by programmes to collect data on by(catch)				361
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2013	20% Reduction in catches (last 3 years' average)	-	280	312	272
2014	No new advice, same as 2013	-	280	296	282
2015	Same catch advice as 2013	-	280	296	365
2016	Same advice as 2015	-	280	296	300
2017	Precautionary approach (same value as advised catches for 2016)	≤ 280	-	280	240
2018	Precautionary approach (same value as advised catches for 2016)	≤ 280	-	280	
2019	Precautionary approach	≤ 224	-		
2020	Precautionary approach	≤ 224	-		

* TAC within EU and international waters for EU vessels of subareas 3–10, 12, and 14.

History of catch and landings

Table 6 Alfonsinos in the Northeast Atlantic. Catch distribution by fleet in 2017 as estimated by ICES.

Total catch (2017)	Landings (tonnes)			Discards
Unknown	2% trawl	93% longliners and handlines	5% other fisheries	Unknown
	240			

Table 7 Reported landings for Alfonsinos in the Northeast Atlantic by ICES subarea/division

Year	4	5.b	6+7	8+9	10.a	10.b	12	Total
1988			0	0	225	0		225
1989			12	0	260	0		272
1990	1	5	8	1	338	0		353
1991			0	0	371	0		371
1992	2	4	3	1	450	0		460
1993			1	0	533	195		729
1994			5	2	644	837		1488
1995		1	3	82	529	200	2	817
1996			178	88	550	960	0	1776
1997			26	135	379	5	0	545
1998			81	268	229	0	0	579
1999			75	201	175	550	0	1001
2000			133	168	203	281	0	785
2001			180	228	199	0	0	607
2002			95	238	243	0	0	577
2003			84	105	172	0	0	361
2004			64	283	139	0	0	485
2005			70	195	15	0	0	422
2006			78	97	192	0	0	367
2007			65	120	211	0	0	396
2008	0	0	54	101	250	2	0	407
2009	0	0	10	61	311	1	0	383
2010	0	0	5	1	240	5	0	291
2011	0	0	40	65	226	9	2	342
2012	0	0	341	7	213	10	0	605
2013	0	0	77	26	168	0	0	272
2014	0	0	49	102	131	0	0	282
2015	0	0	12	51	151	141	0	365
2016	0	0	20	76	156	48	0	300
2017	0	0	18	73	149	0	0	240

Table 8 Reported landings (in tonnes) for Alfonsinos in the Northeast Atlantic by country.

Year	Portugal	Spain	France	Russia	Others	Total
1988	225	0	0	0	0	225
1989	260	0	12	0	0	272
1990	338	0	15	0	0	353
1991	371	0	0	0	0	371
1992	450	0	10	0	0	460
1993	533	1	0	0	195	729
1994	644	7	0	837	0	1488
1995	604	10	0	200	3	817
1996	593	223	0	960	0	1776
1997	414	36	86	0	9	545
1998	238	330	11	0	0	579
1999	204	180	66	550	0	1001
2000	243	217	38	266	21	785
2001	242	295	57	0	13	607
2002	303	196	48	0	29	577
2003	172	150	30	0	9	361
2004	192	255	35	0	3	485
2005	202	196	24	0	0	422
2006	212	116	35	0	4	367
2007	256	114	25	0	1	396
2008	292	86	27	0	2	407
2009	353	18	9	0	2	383
2010	267	1	0	5	1	291
2011	247	73	1	5	6	342
2012	224	364	48	0	10	605
2013	185	66	19	0	1	272
2014	149	119	14	0	0	282
2015	151	64	9	0	142	365
2016	158	85	9	0	49	300
2017	151	78	10	0	0	240

Table 9 Alfonsinos in the Northeast Atlantic Landings inside and outside the NEAFC Regulatory Area (RA) as estimated by ICES.

Year	Inside the NEAFC RA (t)	Outside the NEAFC RA (t)	Landings (t)
2015	141	224	365
2016	48	252	300
2017	0	240	240

Summary of the assessment

There is no assessment for alfonsinos in this area.

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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ICES. 2018. Report of the Working Group on the Biology and Assessment of Deep-sea Fisheries Resources (WGDEEP), 11–18 April 2018, ICES HQ, Copenhagen, Denmark. ICES CM 2018/ACOM:14. 624 pp