

## Thresher sharks (*Alopias* spp.) in subareas 10 and 12, divisions 7.c–k and 8.d–e, and in subdivisions 5.b.1, 9.b.1, and 14.b.1 (Northeast Atlantic)

### ICES advice on fishing opportunities

ICES advises that when the precautionary approach is applied, there should be zero catch in each of the years 2020–2023.

### Stock development over time

No information is available to inform on the current stock status of either common thresher shark (*Alopias vulpinus*) or bigeye thresher shark (*A. superciliosus*). Landings data for the entire stock area are uncertain for both species.

### 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** Thresher sharks (*Alopias* spp.) in the Northeast Atlantic. State of the stocks and fishery relative to reference points.

		Fishing pressure			Stock size					
		2016	2017	2018	2016	2017	2018			
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

The ICES framework for category 6 stocks (ICES, 2012) was applied. For stocks without information on abundance or exploitation, ICES considers that a precautionary reduction of catches should be implemented unless there is ancillary information clearly indicating that the current level of exploitation is appropriate for the stock.

Discarding is known to take place, but ICES cannot quantify the corresponding catch. Discard survival, which may occur, has also not been fully estimated.

**Table 2** Thresher sharks (*Alopias* spp.) in the Northeast Atlantic. Basis for the catch scenario.

Recent advised catch		0
Discard rate		Unknown
Precautionary buffer	Not applied	-
Catch advice		0
% Advice change *		0%

\* Advice value for 2020–2023 relative to the advice for 2016–2019 issued in 2015.

The advice for 2020–2023 has not changed from the previous advice.

### Basis of the advice

**Table 3** Thresher sharks (*Alopias* spp.) 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 thresher sharks in this area.

## Quality of the assessment

There are no stock assessments for either common thresher shark or bigeye thresher shark in the Northeast Atlantic.

Landings and catch data for the stock areas are uncertain for both common thresher shark and bigeye thresher shark, and there are no fishery-independent survey data.

## Issues relevant for the advice

This advice for thresher sharks (*Alopias* spp.) in the Northeast Atlantic pertains to two species, common thresher shark (*Alopias vulpinus*) and bigeye thresher shark (*A. superciliosus*), which have different stock areas. The stock areas of both species extend beyond the Northeast Atlantic into, at least, the Mediterranean Sea and the CECAF area. The assessment of their stock status should, therefore, also include the Mediterranean Sea and the CECAF area.

Under EU regulations it has been prohibited since 2010 for EU vessels to land bigeye thresher shark or to target any species of thresher shark in the ICCAT Convention area (ICES, 2019; EU, 2019). These regulations comply with ICCAT Recommendation 2009–07 (ICCAT, 2009). Both species have been listed in Appendix II of CMS since 2014, and in Appendix II of CITES since 2016.

Ecological risk assessments undertaken by ICCAT indicated that bigeye thresher shark has the lowest productivity and highest vulnerability of the pelagic shark assemblage, while common thresher shark was considered more productive (Cortés *et al.*, 2010). Both species may aggregate in particular areas, making them vulnerable to overexploitation.

Common thresher shark and bigeye thresher shark are both bycatches in pelagic longline fisheries. Common thresher shark is also a bycatch species in gillnet and pelagic trawl fisheries in shelf and near-shelf seas, and is also caught in recreational fisheries.

## Reference points

No reference points are defined for these stocks.

## Basis of the assessment

**Table 4** Thresher sharks (*Alopias* spp.) in the Northeast Atlantic. The basis of the assessment.

ICES stock data category	6 ( <a href="#">ICES, 2018</a> ).
Assessment type	No assessment.
Input data	None.
Discards and bycatch	Unknown.
Indicators	None.
Other information	Life-history; ecological risk assessment.
Working group	Working Group on Elasmobranch Fishes ( <a href="#">WGEF</a> ).

## Information from stakeholders

There is no additional available information.

## History of advice, catch, and management

**Table 5** Thresher sharks (*Alopias* spp.) in the Northeast Atlantic. History of ICES advice and ICES estimates of landings.

Year	ICES advice	Catch corresp. to advice	Landings *		
			<i>Alopias vulpinus</i>	<i>Alopias superciliosus</i> **	<i>Alopias</i> spp.
2010	No advice		NA	NA	NA
2011	No advice		NA	NA	NA
2012	No advice		NA	NA	NA
2013	No advice		NA	NA	NA
2014	No advice		NA	NA	NA
2015	No advice		NA	NA	NA
2016	Precautionary approach, fishing mortality minimized and no targeted fisheries	0	NA	NA	NA
2017	Quadrennial advice	0	NA	NA	NA
2018	Quadrennial advice	0	NA	NA	NA
2019	Quadrennial advice	0			
2020	Precautionary approach	0			
2021	Same advice as in 2020	0			
2022	Same advice as in 2020	0			
2023	Same advice as in 2020	0			

\* Since 2010, EU vessels fishing in the ICCAT Convention Area have not been able to target any species of thresher shark (*Alopias* spp.). Available landings data are highly uncertain, due to the use of generic landings categories (e.g. "sharks"), inconsistent reporting, and lack of data from important (non-EU) fishing nations (ICES, 2019). These data are not shown here, and considered Not Applicable (NA) for the purposes of advice.

\*\* For EU vessels fishing in the ICCAT Convention Area, it has been prohibited to land bigeye thresher shark since 2010, with live release also required from 2009 (ICES, 2019; EC, 2019).

## History of catch and landings

Although no data are available, it is known that the distribution of the stocks of these species extend into the NEAFC Regulatory Area.

**Table 6** Thresher sharks (*Alopias* spp.) in the Northeast Atlantic. Catch distribution by fleet in 2018 as estimated by ICES.

Total catch (2018)	Commercial landings	Commercial discards	Recreational catches
Unknown	Landings are unknown; proportion by fleet is unquantified	Unknown	Unknown

## Summary of the assessment

There are no assessments for the stocks.

## Sources and references

- Cortés, E., Arocha, F., Beerkircher, L., Carvalho, F., Domingo, A., Heupel, M., and Holtzhausen, H. 2010. Ecological risk assessment of pelagic sharks caught in Atlantic pelagic longline fisheries. *Aquatic Living Resources*, 23: 25–34. <https://doi.org/10.1051/alr/2009044>.
- EU. 2019. Council Regulation (EU) 2019/124 of 30 January 2019 fixing for 2019 the fishing opportunities for certain fish stocks and groups of fish stocks, applicable in Union waters and, for Union fishing vessels, in certain non-Union waters. *Official Journal of the European Union*, L 29: 1–166. <http://data.europa.eu/eli/reg/2019/124/oj>.
- ICCAT. 2009. Recommendation by ICCAT on the conservation of thresher sharks caught in association with fisheries in the ICCAT convention area. Rec. 09-07. [http://www.ccsbt.org/userfiles/file/other\\_rfmo\\_measures/iccat/ICCAT\\_2009-07.pdf](http://www.ccsbt.org/userfiles/file/other_rfmo_measures/iccat/ICCAT_2009-07.pdf).
- ICES. 2012. ICES Implementation of Advice for Data-limited Stocks in 2012 in its 2012 Advice. ICES CM 2012/ACOM:68. 42 pp. <https://doi.org/10.17895/ices.pub.5322>.
- ICES. 2018. Advice basis. *In* Report of the ICES Advisory Committee, 2018. ICES Advice 2018, Book 1, Section 1.2. <https://doi.org/10.17895/ices.pub.4503>.
- ICES. 2019. Working Group on Elasmobranch Fishes (WGEF). ICES Scientific Reports. 1:25. <http://doi.org/10.17895/ices.pub.5594>.

*Recommended citation:* ICES. 2019. Thresher sharks (*Alopias* spp.) in subareas 10 and 12, divisions 7.c–k and 8.d–e, and in subdivisions 5.b.1, 9.b.1, and 14.b.1 (Northeast Atlantic). *In* Report of the ICES Advisory Committee, 2019. ICES Advice 2019, thr.27.nea, <https://doi.org/10.17895/ices.advice.4851>.