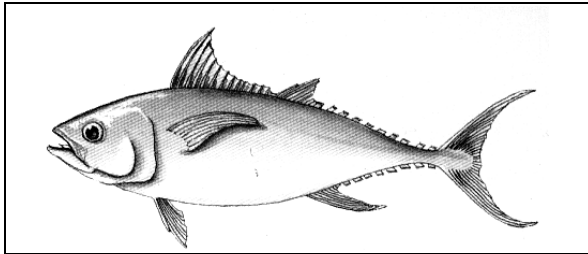


**Nomination****Atlantic bluefin tuna***Thunnus thynnus***Geographical extent**

OSPAR Regions: V

Biogeographic zones: 1,2,4-8

Region & Biogeographic zones specified for decline and/or threat: as above

The Atlantic bluefin tuna is an oceanic species that comes close to shore on a seasonal basis. Current management regimes work on the basis of their being two stocks, an Eastern Atlantic and a Western Atlantic stock, although some intermingling is thought to occur along the Gulf Stream in the mid-Atlantic at the northern end of their respective ranges (ICCAT, 2002). The eastern North Atlantic stock ranges from the southern coasts of Iceland to the Canary Islands and spawns in the Mediterranean. The bluefin is mainly a summertime visitor to northern European waters (Wheeler, 1978).

**Application of the Texel-Faial criteria**

There were two nominations for bluefin tuna to be placed on the OSPAR list, citing decline, and sensitivity. Information was also provided on threat.

Decline

The Atlantic bluefin tuna used to be common in the Norwegian Sea, North Sea, Skagerrak, and Kattegat, and supported major sport and commercial fisheries in these areas between the 1930-1950's. The total weight of tunas brought to Danish fishing harbours in 1959 was 772 000 kg, (approximately 8000 bluefins), for example. Today there is no fishing at all for tuna in Danish waters or any part of the North Sea.

Although much reduced compared to the early part of the 20<sup>th</sup> century, the abundance of the Eastern Atlantic stock of bluefin tuna appeared to be relatively stable in the 1980s. This has been followed by a strong decline in number

and biomass of older fish since 1993. The reported catch for the East Atlantic and Mediterranean stocks in 2000 was 33,754 MT, about 60% of the peak catch in 1996 although this is probably an under-estimate because of increasing uncertainty about catch statistics (ICCAT, 2002).

The best current determination of the state of the stock is that the Spawning Stock Biomass is 86% of the 1970 level. This is similar to the results obtained in 1998 in terms of trends, but more optimistic in terms of current depletion. Nevertheless, the International Commission for the Conservation of Atlantic Tunas (ICCAT) considers that current catch levels are not sustainable in the long-term (ICCAT, 2002).

Sensitivity

The Atlantic bluefin tuna has a slow growth rate, long life span (up to 20 years) and late age of maturity for a fish (4-5 years for the eastern stock) resulting in a large number of juvenile classes. These characteristics make it more vulnerable to fishing pressure than rapidly growing tropical tuna species (ICCAT, 2002).

Threat

The main threats to the Atlantic bluefin tuna are overexploitation of older fish and a high fishing pressure on small fish that is contributing to growth over-fishing and threatening natural recruitment. Bluefin tuna are also taken as by-catch in some long line fisheries.

A regulatory recommendation to limit the fishing mortality came into force in 1975 (and was subsequently extended indefinitely for the East Atlantic) yet fishing mortality rates have exceeded that of 1974 in most years. The recommended minimum sizes have also been poorly enforced and as a result the threat to this species remains high.

In 2000 the level of fishing mortality was almost 2.5 times higher than that which maximises yield per recruit. ICCAT therefore repeated the advice given in their 1998 report that current catch levels cannot be sustained in the long-term under the current selectivity pattern and current fishing mortality rate for the stock. They also continue to be concerned about the intensity of fishing pressure on small fish and noted that the recent abrupt increase of catches of large fish since 1994 is of grave concern.

**Relevant additional considerations**Sufficiency of data

ICCAT compile fisheries statistics, carry out assessments and provide management advice on catch levels for a number of species including the Atlantic bluefin tuna. The most recent assessments for the Eastern Atlantic stock were carried out in 1998 and 2002. The Committee suspects that there was over-reporting between 1993-1997 and increased under reporting in the last few years, especially since 1998, which affects confidence in the assessments based on these data. An assessment was not completed in 2000 because of uncertainties in the basic catch data (primarily in the Mediterranean). Uncertainties remain in 2002 and are a central issue in the East plus Mediterranean assessment. Because of these uncertainties the Committee was not in a position to give or suggest any strong management recommendations for the short or medium term in its 2002 report.

Changes in relation to natural variability

Although the status of bluefin tuna will be affected by ocean conditions, food supply, and other natural changes, there is little to suggest that these factors would have caused the major declines in bluefin tuna that have been observed, without overfishing.

Expert judgement

Due to the diversity of tuna fisheries in OSPAR Region V, landing statistics are difficult to obtain and have to be interpreted with caution, as it is believed that large quantities of undersized fish are caught but not reported. In addition, most of the ICCAT statistics and projections treat the smaller Eastern Atlantic stock together with the larger Mediterranean stock.

ICCAT has been concerned for some years about the quality of catch, effort and catch at size data available to conduct quantitative assessments for East Atlantic bluefin tuna. This remains a concern and unless the situation improves, they have reported that the quality of the advice that the Committee can provide will continue to deteriorate.

**Threat and link to human activities**Cross-reference to checklist of human activities in OSPAR MPA Guidelines

*Relevant human activity:* Fishing, hunting, harvesting; *Category of effect of human activity:* Biological – removal of target and non-target species.

In the OSPAR Maritime Area fisheries for bluefin tuna operate in the Bay of Biscay and

off the Iberian Peninsula. Fisheries in the North Sea collapsed many years ago. In its 2002 advice, ICCAT recorded its concern about the introduction in 2003 of new gears such as purse seines and longlines that are replacing albacore driftnets in the Bay of Biscay that could be targeting or increasing by-catch of juvenile bluefin in this area. The threat to this species is clearly linked to human activities and this situation does not seem likely to change in the near future either in the OSPAR Maritime Area or in other parts of its range.

**Management considerations**

The International Commission for the Conservation of Atlantic Tunas (ICCAT) is an inter-governmental fishery organization responsible for the conservation of tunas and tuna-like species in the Atlantic Ocean and its adjacent seas. One of its functions is to provide a mechanism for Contracting Parties to agree on management measures. These measures fall outside the remit of OSPAR although OSPAR can communicate an opinion on its concern about this species to the relevant bodies. OSPAR could also introduce any relevant supporting measures that fall within its own remit if such measures exist.

**Further information**Nominated by:

Joint submission by Iceland, Portugal and UK and submission by WWF.

Contact person:

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Mathew Carden, DEFRA, Ashdown House, 123 Victoria Street London SW1E 6DE, UK.

Useful References:

ICCAT (2002) Stock Assessment Report. Bluefin Tuna. Standing Committee on Research & Statistics. International Commission on the Conservation of Atlantic Tuna.

Wheeler, A. (1978) Key to the fishes of Northern Europe. Frederick Warne & Co, London.

*This the 2003 case report used to justify the inclusion of Atlantic bluefin tuna in the OSPAR List that appears in the OSPAR Publication: Case Reports for the OSPAR List of threatened and/or declining species and habitats. OSPAR Publication number 2008/358. OSPAR is preparing a background document on Atlantic bluefin tuna for future publication.*