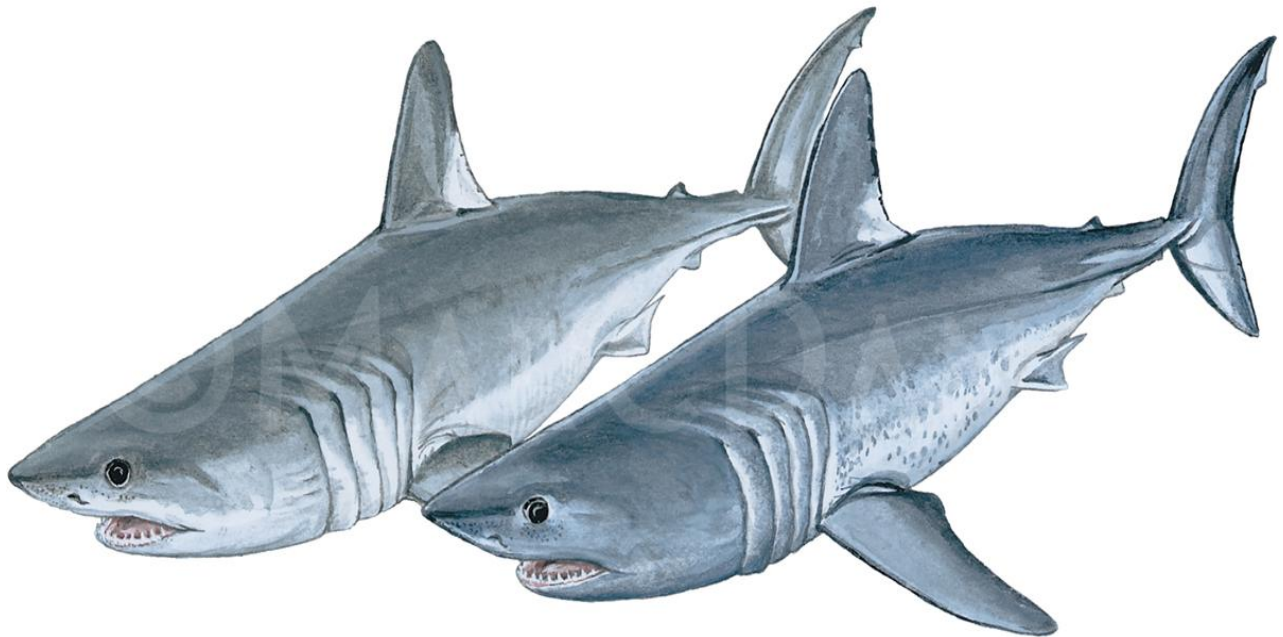


# Fact Sheet

PORBEAGLE  
REQUIN TAUPE  
MARRAJO



Porbeagle  
*Lamna nasus*

## PORBEAGLE

**Class:** *Chondrichthyes*

**Order:** *Lamniformes*

**Family:** *Lamnidae*

**Species:** *Lamna nasus*

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This fact sheet was produced by the Advisory Committee of the Memorandum of Understanding on the Conservation of Migratory Sharks (Sharks MOU).

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## 1. Biology

Porbeagle (*Lamna nasus*) occupies epipelagic habitats in temperate seas. They live up to 65 years (Francis et al. 2007) with low fecundity (4 pups every 1-2 years; Natanson et al. 2019) and a female age at maturity of 13-17 years (Campana et al. 2010 a, Francis et al. 2007). Population growth rate is low but juvenile survival rates are high (Cortes et al. 2010).

## 2. Distribution

In the northern hemisphere, Porbeagle inhabit oceanic, and coastal habitats in the North Atlantic, and Mediterranean Sea are circumglobal in the southern hemisphere (Francis et al. 2008), but the species is absent from tropical waters.



Figure 1: Distribution of Porbeagle (*Lamna nasus*)<sup>i</sup>.

## 3. Critical Sites

Critical sites are those habitats that may have a key role for the conservation status of a shark population, and may include feeding, mating, pupping, overwintering grounds and other aggregation sites, as well as corridors between these sites such as migration routes. Electronic tagging studies indicated a subtropical pupping ground for Porbeagle in the Sargasso Sea (Campana et al. 2010b). Francis et al. (2015) found that mature females made seasonal latitudinal migrations from ~46–48°S in summer to ~35–38°S during winter–spring, where they are hypothesized to give birth. Similar results were found for pregnant females off Chile (Acuña et al. 2001).

<sup>i</sup> Map obtained from the International Union for Conservation of Nature (IUCN) on 20 November 2017.

## 4. Population Status and Trends

ICCAT<sup>ii</sup> and ICES<sup>iii</sup> have assessed the status of porbeagle in the northwest, Northeast and Southwest Atlantic Ocean (ICCAT 2009). A risk assessment model of the southern Hemisphere population found a very low risk the population is subject to overfishing (Hoyle et al. 2017). The current IUCN Red List status<sup>iv</sup> for the global population is 'Vulnerable' (Stevens et al. 2006). More details of the population status and trends can be found in the IUCN assessment.

## 5. Threats

- **Fisheries:** Populations in the Northeast Atlantic and Mediterranean Sea were under high pressure of targeted and incidental catches, which is thought to have depleted populations during the last century. They also represent a valuable bycatch species in various fisheries, including longline, gillnet, driftnet and trawls, as well as recreational fisheries (Stevens et al. 2006).
- **International trade:** Porbeagle is largely traded for meat but fins and teeth are also reported in their trade (CITES 2013).
- **Pollution:** A recent study found high levels of mercury contamination in Porbeagle, but the effects of pollutants on individual (and population) health are unknown (Nicolaus et al. 2016).

## 6. Key Knowledge Gaps

More information is needed to better define critical habitats, migration routes and the connectivity of different populations. Data on post-release survival for all fisheries is required.

## 7. Key Management and Conservation Gaps

- There is legal harvesting of Porbeagle in parts of their stock ranges, but some of this may not be regulated. Given the high value of this species, there is the potential for illegal harvesting.
- There may be a degree of misidentification or mislabeling (e.g. with Shortfin Mako).
- Advice on sustainable catch limits is needed in many stock areas.

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<sup>ii</sup> The International Commission for the Conservation of Atlantic Tunas (ICCAT).

<sup>iii</sup> The International Council for the Exploration of the Sea (ICES).

<sup>iv</sup> The IUCN Red List of Threatened Species uses a set of criteria to evaluate the extinction risk of species and subspecies. For more information see <https://www.iucnredlist.org/>.

## 8. Suggestions for Conservation and Management Action

- a) Incorporate conservation measures for Porbeagle into national legislation of all Parties/Signatories (in compliance with the obligations of the for the Appendix I listed species of CMS<sup>v</sup> and in line with the objectives of the Sharks MOU)**
- Implement relevant international measures (e.g. CMS, CITES<sup>vi</sup> and RFMO<sup>vii</sup> recommendations).
- b) Improve the understanding of Porbeagle through strategic research, monitoring and information exchange, including data collection of biological and distributional data and population status**
- Identify critical sites of Porbeagle abundance and seasonality.
  - Address data gaps in life-history and determine stock-specific biological parameters.
  - Further investigate post-release survivorship of Porbeagle and inform improved handling and release protocols.
  - Enhance, or develop where necessary, collection of fishery data (including landings, discards, size frequency, catch and effort where needed).
  - Develop more reliable indices of stock abundance.
- c) Improve multilateral cooperation among regions and RFBs<sup>viii</sup>**
- Communicate your actions to the public and other Range States.
  - Support the introduction of appropriate management and conservation measures for Porbeagle at international and regional fora (e.g. Co-sponsor proposals / resolutions within multilateral agreements).
  - Promote better regional cooperation between RFMOs and RFBs (e.g. data-sharing or involvement in the Kobe process<sup>ix</sup>).
  - Support development and implementation of appropriate management plans for the various stocks of Porbeagle.
  - Identify synergies with other Range States/stakeholders to support coordinated and resource-effective research and conservation programs.

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<sup>v</sup> Convention on the Conservation of Migratory Species of Wild Animals (CMS).

<sup>vi</sup> Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

<sup>vii</sup> Regional Fisheries Management Organizations (RFMOs).

<sup>viii</sup> Regional Fishery Bodies (RFBs).

<sup>ix</sup> The joint tuna Regional Fisheries Management Organization (tRFMO), also known as the Kobe process seeks to harmonize the activities of the five tuna regional fisheries management organizations. For more information see <http://www.tuna-org.org>.

## 9. Legal Instruments

Instrument:	Description:
<b>Barcelona Convention</b> Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean	<b>Annex II:</b> Endangered or threatened species; Parties shall ensure the maximum possible protection and recovery of, while prohibiting the damage to and destruction of, these species.
<b>CCAMLR</b> Convention on the Conservation of Antarctic Marine Living Resources	<b>CCAMLR CM 32-18:</b> Directed fishing on sharks species in the Convention Area is generally prohibited and any bycaught sharks Porbeagles occurring within the CCAMLR area should, as far as possible, be released alive.
<b>CCSBT</b> Commission for the Conservation of Southern Bluefin Tuna	CCSBT encourages both Members and Cooperating Non-Members to comply with a variety of binding and non-binding measures in order to protect species ecologically related to Southern bluefin tuna, including sharks.
<b>CITES</b> Convention on International Trade in Endangered Species of Wild Fauna and Flora	<b>Appendix II:</b> Species not necessarily threatened with extinction, but in which trade must be controlled in order to avoid utilization incompatible with their survival.
<b>CMS</b> Convention on the Conservation of Migratory Species of Wild Animals	<b>Appendix II:</b> Migratory species that have an unfavorable conservation status and need or would significantly benefit from international cooperation; CMS Parties shall endeavor to conclude global or regional agreements to benefit these species.
<b>EU</b> European Union	<b>Council Regulation (EU) 2017/127:</b> prohibits to fish for, to retain on board, to transship or to land Porbeagle for Union vessels in all waters and for third parties in Union waters. When accidentally caught, the specimens shall not be harmed and promptly be released.

Instrument:	Description:
	<p><b><u>Council Regulation (EU) 2018/120:</u></b> Prohibits for Union vessels to fish for, to retain on board, to transship or to land Porbeagle in all waters. The regulation also prohibits third-country vessels to fish for, to retain on board, and to transship Porbeagle in Union waters.</p>
<p><b>FAO</b> Food and Agriculture Organization</p>	<p><b><u>IPOA Sharks:</u></b> International Plan of Action for Conservation and Management of Sharks based on which states should adopt and implement a national plan of action for conservation and management of shark stocks (NPO Sharks) if their vessels conduct directed fisheries for sharks or if their vessels regularly catch sharks in non-directed fisheries.</p>
<p><b>ICCAT</b> International Commission for the Conservation of Atlantic Tunas</p>	<p><b><u>Recommendation 2015-06</u></b> that Contracting Parties shall require their vessels to promptly release Porbeagle unharmed, to the extent practicable.</p>
<p><b>IOTC</b> Indian Ocean Tuna Commission</p>	<p>Contracting Parties and Co-operating Non-Contracting Parties (CPCS) are encouraged to comply with the recording and reporting requirements on sharks outlined in Resolution 15/01 and 15/02 and shall require fishermen to fully utilize the entire catches. The removal of shark fins as well as the landing, retention on-board, transshipment and carrying of shark fins which are not naturally attached is prohibited by Resolution 17/05.</p>
<p><b>NAFO</b> Northwest Atlantic Fisheries Organization</p>	<p><b><u>NAFO Conservation and Enforcement Measures 2017, Article 12:</u></b> NAFO Contracting Parties shall prohibit the removal of shark fins onboard vessels and their retention onboard, transshipment and landing separate to the carcass. Further, vessels shall be encouraged to release sharks alive, which are not intended for use as food or subsistence (especially juveniles). Contracting Parties shall also identify more selective fishing gear and main biological and ecological parameters for key shark species through research</p>



<b>Instrument:</b>	<b>Description:</b>
<b>NEAFC</b> The North East Atlantic Fisheries Commission	<b><u>NEAFC agreed on Recommendation 7:2016</u></b> to prohibit, for the period 2016 to 2019, all directed fishing of Porbeagle in the Regulatory Area and prompt release, of incidental catches to the extent possible.
<b>OSPAR</b> The Convention for the Protection of the Marine Environment of the North-East Atlantic	<b><u>Recommendation 2014/6</u></b> : Contracting Parties should inter alia consider the possibility to introduce legislation, to protect all life stages of the Porbeagle, to improve funding and to undertake fishery-independent research to identify critical Porbeagle habitats and/or aggregation sites. Further, Contracting Parties should consider associating themselves with the Sharks MOU.
<b>SEAFO</b> South-East Atlantic Fisheries Organisation	SEAFO introduced Conservation Measure [CM 04/06] requiring full utilization of catches, a 5% ratio of fin-to-body weight of sharks onboard, up to the first point of landing and reporting of shark catches.
<b>SPRFMO</b> The South Pacific Regional Fisheries Management Organisation	Porbeagle is listed as a species of concern requiring certain reporting standards for trawl fishing activities.
<b>Sharks MOU</b> Memorandum of Understanding on the Conservation of Migratory Sharks	<b><u>Annex 1</u></b> : Signatories should endeavor to achieve and maintain a favorable conservation status for these species based on the best available scientific information and taking into account their socio-economic value.
<b>WCPFC</b> Western and Central Pacific Fisheries Commission	<b><u>CMM 2010-07</u></b> : CMM 2010-07: Porbeagles (south of 20°S) represent a key shark species and shall therefore be included in the annual reporting to the Commission of annual retained and discarded catches and fishing effort statistics by gear type. As well, fishers shall be required to fully utilize any retained catches of sharks and encouraged to release live sharks that are caught incidentally and are not used for food or other purposes.



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## About the Sharks MOU

The Memorandum of Understanding on the Conservation of Migratory Sharks (Sharks MOU) is the first global instrument for the conservation of migratory species of sharks, rays, skates and chimaeras.

The Sharks MOU is an instrument of the Convention on the Conservation of Migratory Species of Wild Animals (CMS) that engages all relevant stakeholders in addressing threats to migratory species in concert with all other aspects of wildlife conservation and management.

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