



## Porbeagle (*Lamna nasus*)

Low reproductive capacity and high commercial value make porbeagle sharks (*Lamna nasus*) vulnerable to overexploitation and population depletion. According to the IUCN Red List of Threatened Species, the porbeagle is Vulnerable globally, Endangered in the Northwest Atlantic, and Critically Endangered in the Northeast Atlantic and Mediterranean Sea. Globally, catches peaked in the mid-1960's (reported catches under 10,000 tons), and since then there has been a declining trend with less substantial peaks around 1970 and 2000.<sup>1</sup>

<b>IUCN Red List status:</b>	<b>Vulnerable</b>
<b>Population Trend:</b>	<b>Decreasing</b>
<b>Age of maturity:</b>	<b>8 years (males), 13 years (females)<sup>2</sup></b>
<b>Gestation period:</b>	<b>8-9 months<sup>3</sup></b>
<b>Maximum length:</b>	<b>&gt;3.5 meters<sup>4</sup></b>
<b>Maximum weight:</b>	<b>230 kg (approx. 500 lbs)<sup>5</sup></b>
<b>Litter Size:</b>	<b>1-5 pups<sup>6,7,8,9,10</sup></b>
<b>Life span:</b>	<b>29-45 years<sup>11</sup></b>

In 2000, the biomass of the porbeagle in the Northwest Atlantic was estimated at between 11 and 17 percent of unexploited levels.<sup>12</sup> In the Southwest Atlantic, Uruguayan longline fleets have shown over 90 percent declines in porbeagle landings between 1988 and 1998.<sup>13</sup> There is not much information available on the status of porbeagle populations in the Southern Ocean. Despite the large amount of fishing activity targeting porbeagles in the Southern Hemisphere, New Zealand is the only country in that hemisphere reporting landings to the UN Food and Agriculture Organization (FAO).<sup>14</sup>

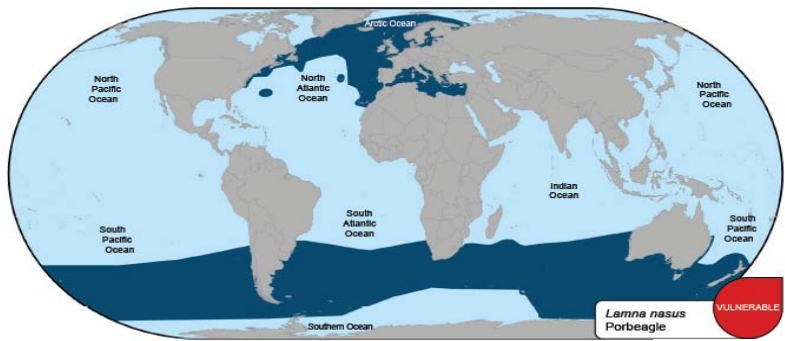
### MAJOR THREATS

Since the 1970s French and Spanish longliners have operated directed fisheries for porbeagle. Porbeagles form a large portion of the bycatch of Japanese longliners in the Southern Hemisphere,<sup>15</sup> and are the second most common shark species caught as bycatch in New Zealand's longline fishery.<sup>16</sup> Porbeagles are most notably targeted in the North Atlantic and Mediterranean for human consumption and as targeted bycatch across their southern distribution. In addition, the porbeagle's skin is used for leather and its organs for liver oil and fishmeal.

Porbeagles are a valuable secondary target of many fisheries, particularly longline fisheries, as well as gillnet, driftnet, pelagic, and bottom trawl fisheries. Despite the market for porbeagle meat, many boats, particularly those with limited holding space, will keep the porbeagle's fins for use in shark fin soup and discard the rest of the body.

## GEOGRAPHIC DISTRIBUTION

The porbeagle shark is a wide-ranging coastal and oceanic species found globally in temperate and cold-temperate waters, most commonly on continental shelves and in concentrated numbers in the North Atlantic and in a band of temperate water in the southern Atlantic, southern Indian Ocean, southern Pacific, and Antarctic Oceans.<sup>17</sup> In the Southwest Atlantic Ocean they are found below 26°S<sup>18</sup> and in the Southeastern Pacific, between 23 and 37°S.<sup>19</sup>



Map: IUCN

Though porbeagles have virtually disappeared from the Mediterranean, studies have found that the Mediterranean appears to be an important nursery for northern populations.<sup>20</sup> Normally, the North Atlantic porbeagle population only migrates as far south as South Carolina and the Gulf of Guinea,<sup>21</sup> but pregnant females from the western North Atlantic population have been known to range into the Sargasso Sea, almost as far as Hispaniola, to give birth.<sup>22</sup>

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### The primary source is the IUCN Red List Assessment

J. Stevens *et al.*, "Lamna nasus," 2006 In IUCN 2010. IUCN Red List of Threatened Species. Version 2010.4. <[www.iucnredlist.org](http://www.iucnredlist.org)>

<sup>1</sup> FAO FishStat Plus. 2000.

<sup>2</sup> C.F. Jensen *et al.*, "The reproductive biology of the porbeagle shark, *Lamna nasus*, in the western North Atlantic Ocean," *Fisheries Bulletin*, 100, 2002, p. 727-738.

<sup>3</sup> *Ibid.*

<sup>4</sup> IGFA, Database of IGFA angling records until 2001. IGFA, Fort Lauderdale, USA, 2001.

<sup>5</sup> *Ibid.*

<sup>6</sup> L.J.V. Compagno, *FAO species catalogue. Vol. 4. Sharks of the world. An annotated and illustrated catalogue of shark species known to date.* FAO Fish. Synop, 4(125), 1984.

<sup>7</sup> J.A. Gauld, "Records of porbeagles landed in Scotland, with observations on the biology, distribution and exploitation of the species," *Scottish Fisheries Research Report*, 45, 1989.

<sup>8</sup> IGFA, 2001.

<sup>9</sup> M.P. Francis and J.D. Stevens. "Reproduction, embryonic development and growth of the porbeagle shark, *Lamna nasus*, in the South-west Pacific Ocean," *Fishery Bulletin*, 98, 2000, p. 41-63.

<sup>10</sup> M.P. Francis, L.J. Natanson, and S.E. Campana, "Porbeagle (*Lamna nasus*)," In *Sharks of the open ocean*, edited by E.K. Pikitch and M. Camhi, Blackwell Scientific Publications, 2008.

<sup>11</sup> S. Campana and J. Gibson, "Catch and Stock Status of Porbeagle Shark (*Lamna nasus*) in the Northwest Atlantic to 2007," Northwest Atlantic Fisheries Organisation, Doc. 08/36, 2008.

<sup>12</sup> Department of Fisheries and Oceans (DFO), "Porbeagle Shark in NAFO Subareas 3-6," DFO Science Stock Status Report B3-09(2001). DFO, Maritimes Region, Canada, 2001.

<sup>13</sup> J. Stevens *et al.*, 2006.

<sup>14</sup> J. Stevens *et al.*, 2006.

<sup>15</sup> Food and Agriculture Organization of the United Nations. "Lamna nasus," Rome, Italy, 2003. <<http://www.fao.org/fishery/species/2798/en>>

<sup>16</sup> *Ibid.*

<sup>17</sup> L.J.V. Compagno, *Sharks of the world: An annotated and illustrated catalogue of shark species known to date. Vol. 2. Bullhead, mackerel and carpet sharks (Heterodontiformes, Lamniformes and Orectolobiformes).* FAO species catalogue for fisheries purposes, 2(1), FAO, Rome, 2001.

<sup>18</sup> J. Stevens, "Porbeagle shark *Lamna nasus*," In *Sharks, rays and chimaeras: the status of the chondrichthyan fishes*, edited by S.L. Fowler, R.D. Cavanagh, M. Camhi, G.H. Burgess, G. Cailliet, S.V. Fordham, C.A. Simpfendorfer, and J.A. Musick, IUCN SSC Shark Specialist Group. IUCN, Gland, Switzerland and Cambridge, UK, 2005.

<sup>19</sup> J. Stevens *et al.*, 2006.

<sup>20</sup> J. Stevens *et al.*, 2006.

<sup>21</sup> L.J.V. Compagno, *Sharks of the world: An annotated and illustrated catalogue of shark species known to date. Vol. 2. Bullhead, mackerel and carpet sharks (Heterodontiformes, Lamniformes and Orectolobiformes).* FAO species catalogue for fisheries purposes, 2(1), FAO, Rome, 2002.

<sup>22</sup> S.E. Campana *et al.*, "Population dynamics of the porbeagle in the Northwest Atlantic Ocean," *North American Journal of Fisheries Management*, 22, 2002, p. 106-121.