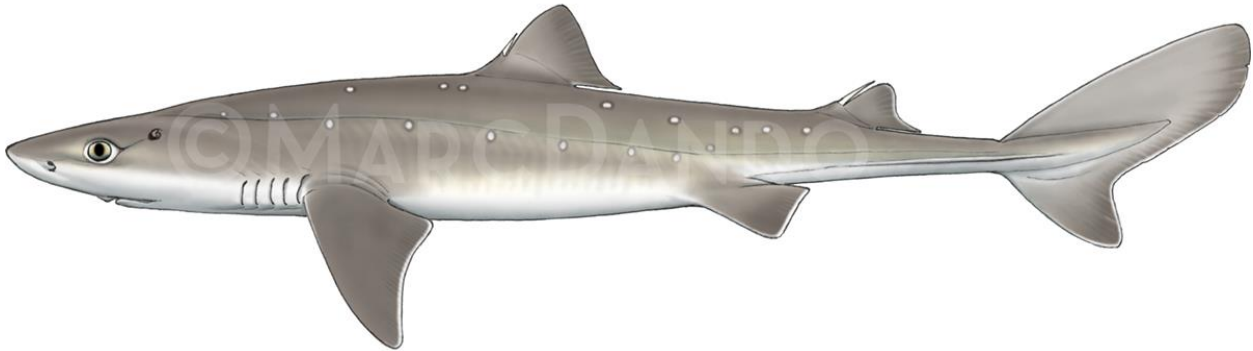


# Memorandum of Understanding on the Conservation of Migratory Sharks

## Spiny Dogfish Fact Sheet



**Class:** Chondrichthyes  
**Order:** Squaliformes  
**Family:** Squalidae  
**Species:** *Squalus acanthias*

Spiny Dogfish  
 Aiguillat commun  
 Mielga/Galludo

Illustration: © Marc Dando

### 1. BIOLOGY

Spiny Dogfish (*Squalus acanthias*), also known as Picked Dogfish or Spurdog, is a demersal shark that has a maximum length of 125 cm in the North Atlantic. It occurs mostly in shelf seas, from coastal habitats to the shelf edge, but can occur to depths of 900 m. They aggregate by size and sex, and are migratory in regional seas. Spiny Dogfish are long lived (ca. 50–60 years) and have slow growth rates. Females mature at a length of 75-85 cm, produce up to 21 pups and gestation lasts two years (ICES, 2017). Published studies on *S. acanthias* from the North Pacific relate to *Squalus suckleyi* (see Ebert *et al.*, 2010).

### 2. DISTRIBUTION

Spiny Dogfish is distributed in both northern and southern temperate and boreal waters, but the Sharks MOU lists northern hemisphere populations only. Northern hemisphere subpopulations occur in the Northeast and Northwest Atlantic, Mediterranean Sea and Black Sea. North Pacific populations of ‘Spiny Dogfish’ are now considered to be a separate species, *Squalus suckleyi* (see Ebert *et al.*, 2010).



Figure 1: Distribution of *Squalus acanthias*, courtesy of IUCN.

### 3. CRITICAL SITES

While there is extensive monitoring effort in the NE and NW Atlantic, critical sites for this species supporting different life stages or as pupping and nursery grounds are largely undefined (McMillan & Morse 1999; Sulikowski et al. 2013; ICES 2017).

### 4. POPULATION STATUS AND TRENDS

Stock assessments for Spiny Dogfish are undertaken by the Northeast Fisheries Science Centre for the NW Atlantic (NEFSC, 2006) and by ICES for the NE Atlantic stock (De Oliveira et al. 2013; ICES, 2017). There is more limited information on Mediterranean Sea and Black Sea, with exploratory assessments undertaken under the auspices of the GFCM. The current IUCN Red List status for the global population is Vulnerable (Fordham et al. 2016) 1.

Region	Population trend	Time Period	Reference
Northeast Atlantic	-82%	Since 1905	De Oliveira et al. 2013; (ICES 2017)
Northwest Atlantic	Decline to early 2000s, then period of stability at a low level and recent increase	1968-2008	Rago & Sosebee, 2010 NEFSC, 2006
Black Sea	>60% decline	1981 to 1992	(Prodanov et al. 1997)
Mediterranean Sea	Depleted		(GFCM 2016)

### 5. THREATS

- **Fisheries:** Spiny Dogfish is taken in trawl, gillnet and longline fisheries, and is, or has been, subject to target fisheries as well as a frequent bycatch.

### 6. KEY KNOWLEDGE GAPS

- Habitat utilization and critical sites for relevant life-history stages;

1 See the IUCN website for further details on the population assessment:  
<http://www.iucnredlist.org/details/91209505/0>.

- Estimates of discards and post-release survivorship;
- Life-history data are available for the Atlantic stocks, but improved estimates for age and growth, and natural mortality are required;
- Improved knowledge of both the Mediterranean Sea and Black Sea stocks are of high priority, including confirmation of their taxonomic status, population status and demographic structure.

## 7. KEY MANAGEMENT AND CONSERVATION GAPS

- Full stock assessments have only been conducted for the two North Atlantic stocks. Improved knowledge of the Mediterranean and Black Sea stocks is required, in order to ascertain the current status of these stocks.
- Identification of the most effective management measures (e.g. size limits, quotas, spatial management) and options for technical measures.

## 8. RECOMMENDATIONS FOR CONSERVATION AND MANAGEMENT ACTION

A multifaceted approach is required to address the management and conservation gaps for Spiny Dogfish. Sharks MOU Signatories and other Range States are encouraged to:

### a) Improve the understanding of Spiny Dogfish through strategic research, monitoring and information exchange, including distributional data and population status

- Identify critical sites for Spiny Dogfish;
- Improved estimation of discards, including post-release survivorship;
- Address data gaps in biological knowledge (life-history parameters), including updated studies of age and growth, and natural mortality;
- Continue the longer-term monitoring of Spiny Dogfish populations, including updated analyses of trawl survey data;
- Further refine stock assessment methods in cooperation with RFMOs in all areas;
- Further investigate post-release survivorship of Spiny Dogfish to inform improved handling and release protocols, and options for technical measures;
- Improve capacity in species identification through training and the dissemination of available ID guidelines for those areas where other members of the genus occur.

### b) Improve multilateral cooperation among regions & RFBs

- Support the introduction of appropriate management measures for Spiny Dogfish at regional fora;
- Support development and implementation of appropriate management plans for Spiny Dogfish stocks
- Identify synergies with other Range States/stakeholders to support coordinated and resource-effective research programs, with special reference to Mediterranean Sea and Black Sea.

## 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 III:</b> Species whose exploitation is regulated; Parties shall ensure the favourable state of conservation of these species by taking all appropriate measures, in cooperation with competent international organizations.

Instrument	Description
<b>CMS</b> Convention on the Conservation of Migratory Species of Wild Animals	<b>Appendix II:</b> Migratory species that have an unfavourable conservation status and need or would significantly benefit from international cooperation; CMS Parties shall endeavour to conclude global or regional agreements to benefit these species.
<b>EU</b> European Union	<b>Council Regulation (EC) No 1185/2003:</b> establishes a general prohibition of the practice of 'shark finning', whereby a shark's fins are removed and the remainder of the shark is discarded at sea. <b>Council Regulation (EU) 2018/120</b> prohibits for Union vessels to fish for, to retain on board, to tranship or to land Spiny (Picked) Dogfish by in all waters, with the exception of avoidance programmes (e.g. limited quota is available for vessels engaged in bycatch avoidance programmes). The regulation also prohibits third-country vessels to fish for, to retain on board, and to tranship Spiny Dogfish in Union waters.
<b>FAO</b> Food and Agriculture Organization	<b>IPOA Sharks:</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.
<b>GFCM</b> General Fisheries Commission for the Mediterranean	<b>Rec. GFCM/36/2012/3:</b> shark species listed under Annex III of the Barcelona Convention cannot be retained on board, transshipped, landed, transferred, stored, sold or displayed or offered for sale and must be released unharmed and alive to the extent possible.
<b>HELCOM</b> Baltic Marine Environment Protection Commission - Helsinki Commission	Being the environmental governing body of the Helsinki Convention, HELCOM strives to protect the marine environment of the Baltic Sea from all sources of pollution through intergovernmental cooperation.
<b>NAFO</b> Northwest Atlantic Fisheries Organization	In order to safeguard the marine ecosystems in which the Convention Area's fisheries resources are found, NAFO develops and adopts conservation and enforcement measures to protect shark species in its region.
<b>NEAFC</b> North East Atlantic Fisheries Commission	NEAFC considers and designs recommendations and measures to ensure the protection and conservation of shark species related to fisheries in its region.
<b>OSPAR</b> Convention for the Protection of the Marine Environment of the North-East Atlantic	<b>OSPAR Recommendation 2014/2:</b> Contracting Parties and management authorities responsible for human activities in the region are urged to take the need for protection of these species into account, OSPAR List of Threatened and/or Declining Species and Habitats: Species listed are a priority for protection and conservation;
<b>Sharks MOU</b> Memorandum of Understanding on the Conservation of Migratory Sharks	<b>Annex 1:</b> Signatories should endeavour to achieve and maintain a favourable conservation status for these species based on the best available scientific information and taking into account their socio-economic value.

## 10. REFERENCES

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