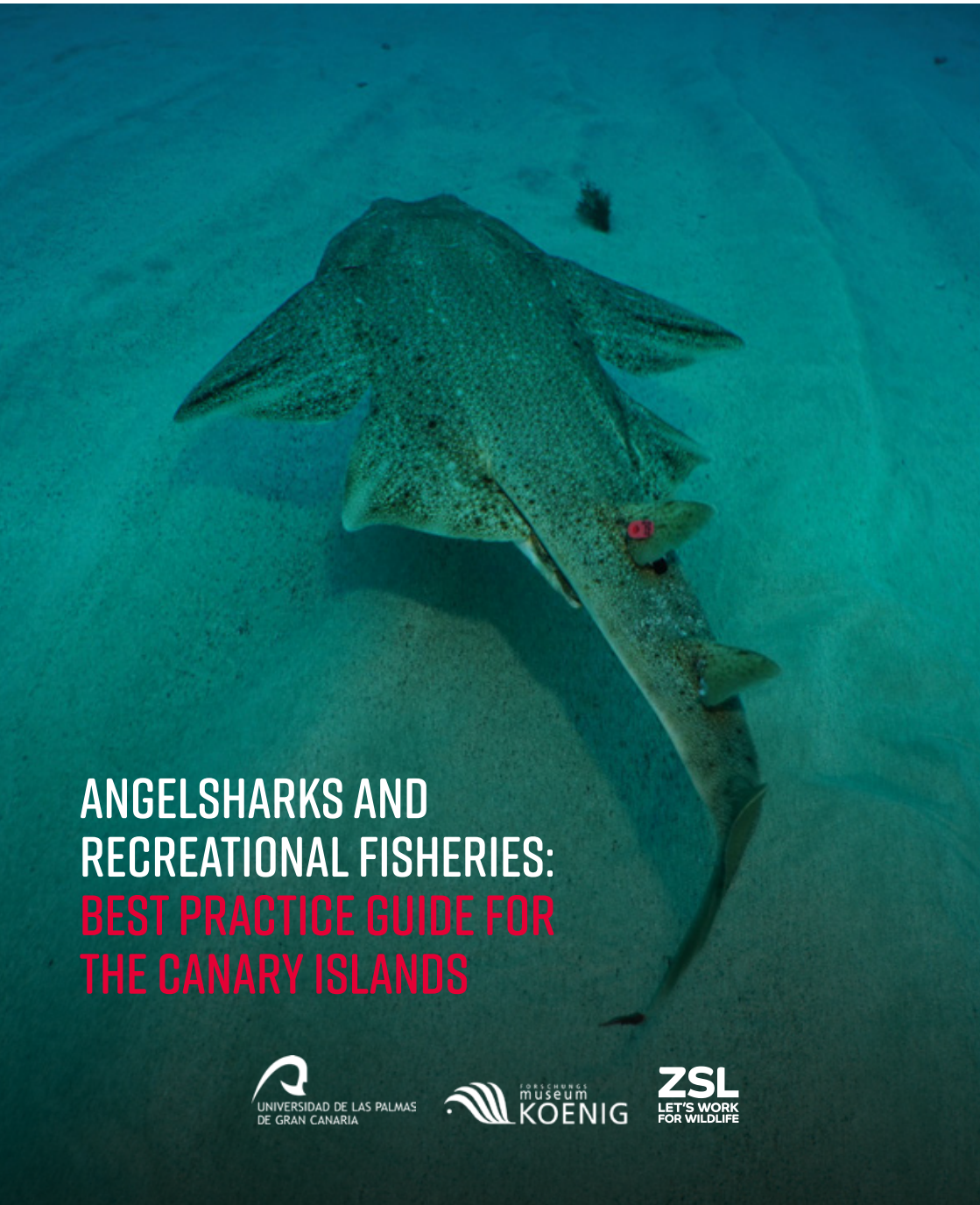
ANGEL SHARK PROJECT:
CANARY ISLANDS



ANGELSHARKS AND RECREATIONAL FISHERIES: BEST PRACTICE GUIDE FOR THE CANARY ISLANDS

UNIVERSIDAD DE LAS PALMAS DE GRAN CANARIA
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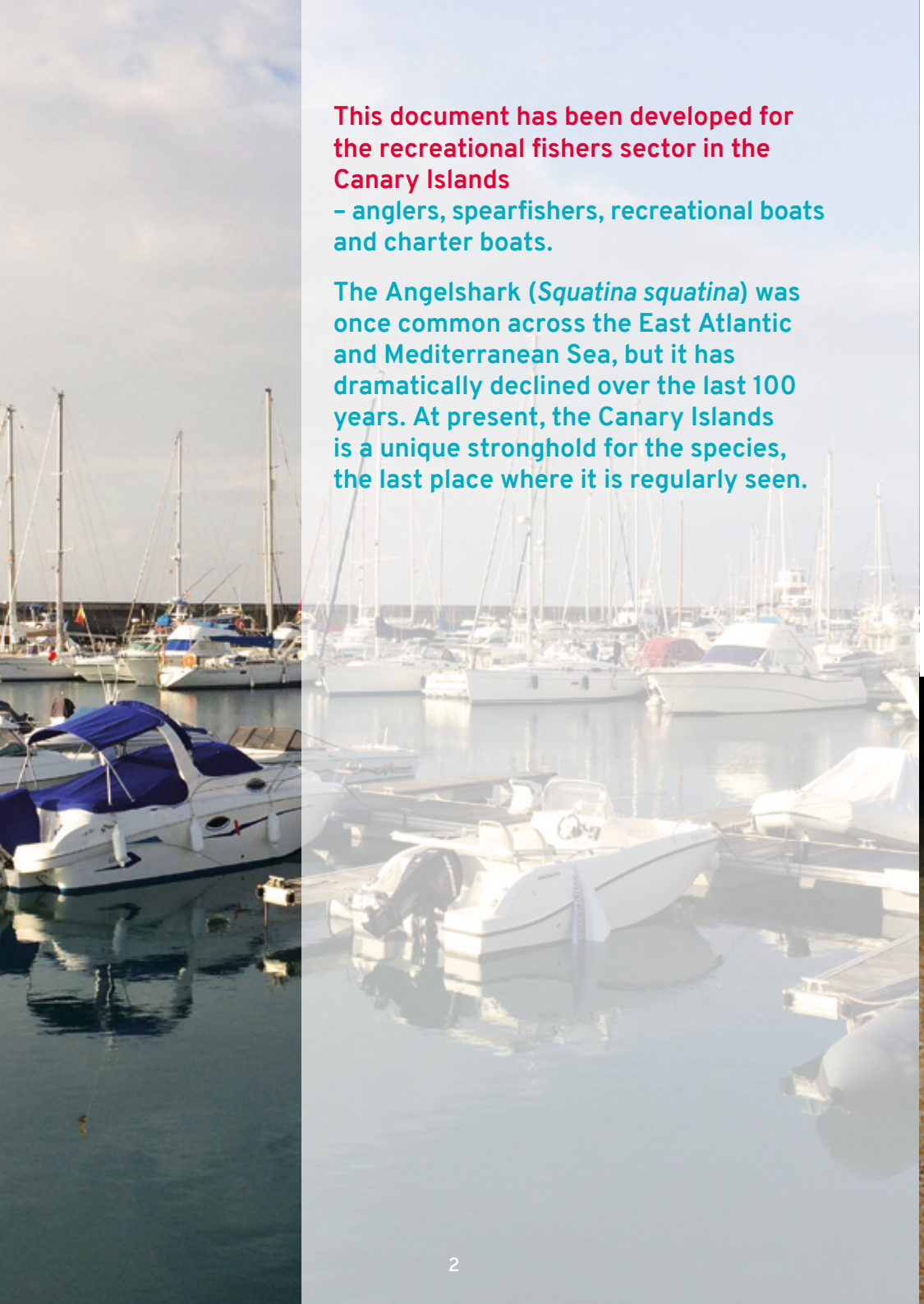


This document has been developed for the recreational fishers sector in the Canary Islands – anglers, spearfishers, recreational boats and charter boats.

The Angelshark (*Squatina squatina*) was once common across the East Atlantic and Mediterranean Sea, but it has dramatically declined over the last 100 years. At present, the Canary Islands is a unique stronghold for the species, the last place where it is regularly seen.

RECOMMENDATIONS FOR FISHERS

Do not capture, Angelsharks are a protected species

The Angelshark is listed as Critically Endangered on the IUCN Red List and it is **prohibited to target, fish, land or retain this species in the Canary Islands** under the following legislation:

- European Union (EU) fisheries regulation (Council Regulation (EU) No 2019/124).
- Listed on Spanish Endangered Species List as “in danger of extinction” under Order TEC / 596/2019.

Follow the Best Practice Guide

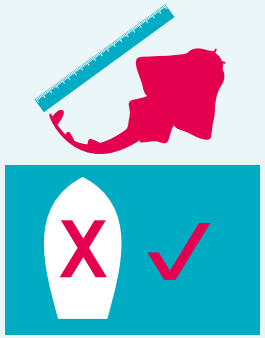
developed by Angel Shark Project: Canary Islands in collaboration with recreational fishers to release an Angelshark safely if it is accidentally caught.

Report any accidental captures

to the sighting map to help conserve this species **angelsharkproject.com/map**

BEST-PRACTICE GUIDE TO SAFELY RELEASE ANGELSHARKS IF ACCIDENTALLY CAUGHT

Angelsharks should not be targeted, but this guidance has been developed with fishers to reduce mortality if they are accidentally caught.



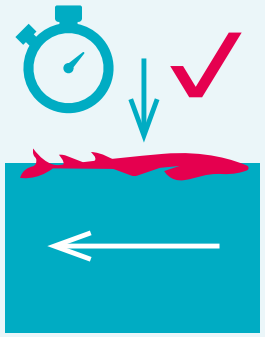
1. Unhooking

Record the size and sex of the shark. Male sharks have two claspers (long app endages) behind the pelvic fin.

This helps us to understand population structure

Unhook the Angelshark in the water on the side of the boat. If you have to cut the leader, cut it as close to the hook as possible.

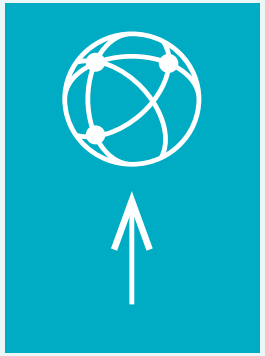
Water supports the internal organs.



2. Releasing

Release the shark as soon as possible after unhooking. Lower it into the water facing the tide or waves.

Forces oxygen through its gills so that it can quickly swim away.



3. Reporting

Report your accidental capture on **angelsharkproject.com/map** or to **info@angelsharkproject.com**

We will use this information to better understand and conserve Angelsharks.

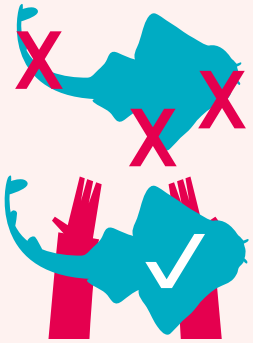
Advice on fishing tackle

Always use barbless brass circle hooks (or a circle hook with the barb flattened down).

To reduce the chance of gut hooking so that it is easier to unhook the shark.

Use a strong line.

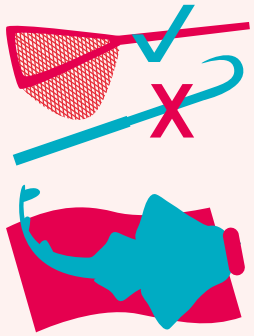
To reduce the likelihood of the line snapping and the shark trailing gear.



Handling (ONLY if necessary)

Never hold the shark just by its tail, its fins or by the gills; you need to support the underside of the shark.

To support the internal organs and reduce chance of injury.



Landing aboard the boat (ONLY if necessary)

All interaction with sharks should be minimised. If you need to land aboard the boat to unhook safely, use a large landing net. Never use a gaff.

To support the internal organs and reduce chance of injury.

Place it on a cool, wet, soft surface (e.g. a wet towel). Place a towel soaked in seawater over the eyes.

To keep it calm and stop thrashing.

ANGELSHARK ECOLOGY

- More active during the night
- More abundant on sandy bottoms, especiallythose close to reefs
- Angelsharks tend to be present in temperatures between 19ºC and 22ºC, seasonality varies across the Canary Islands.

Distribution

Some Angelshark populations remain across the East Atlantic and Mediterranean Sea, but the Canary Islands act as the unique stronghold for this species.

Breeding areas

Angelsharks give birth in shallow, sheltered beaches across the Canary Islands.

Mating

Substrate preference

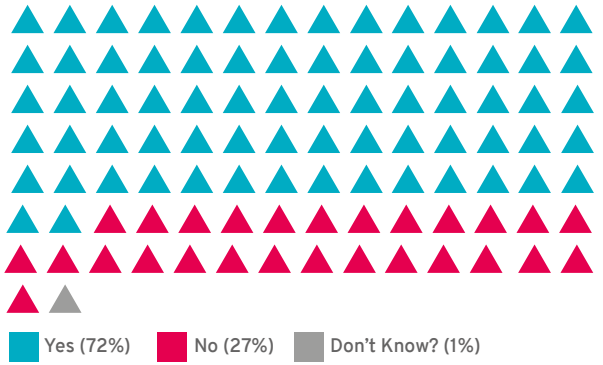
Angelsharks prefer sand, but they can also be found on rocks.

OUR WORK WITH RECREATIONAL FISHERMEN

Since 2015, we have been working with recreational fishers across the Canary Islands, with the following main objectives:

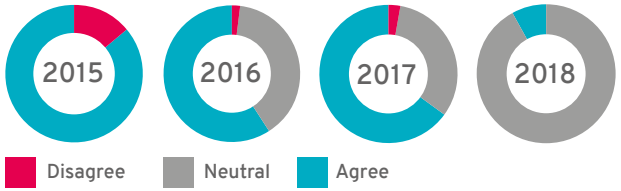
- Raise awareness of the importance of the Canary Islands for the Angelshark
- Highlight the current situation for Angelsharks and the importance of conserving this species
- Explain how to act correctly if an Angelshark is accidentally caught

Do you think this animal is rare/in trouble?



Ways of holding a shark if caught:

Different ways of holding a fish can affect it's survival when released:



ANGELSHARK BIOLOGY

There are 3 species of angel shark found in the East Atlantic and Mediterranean Sea

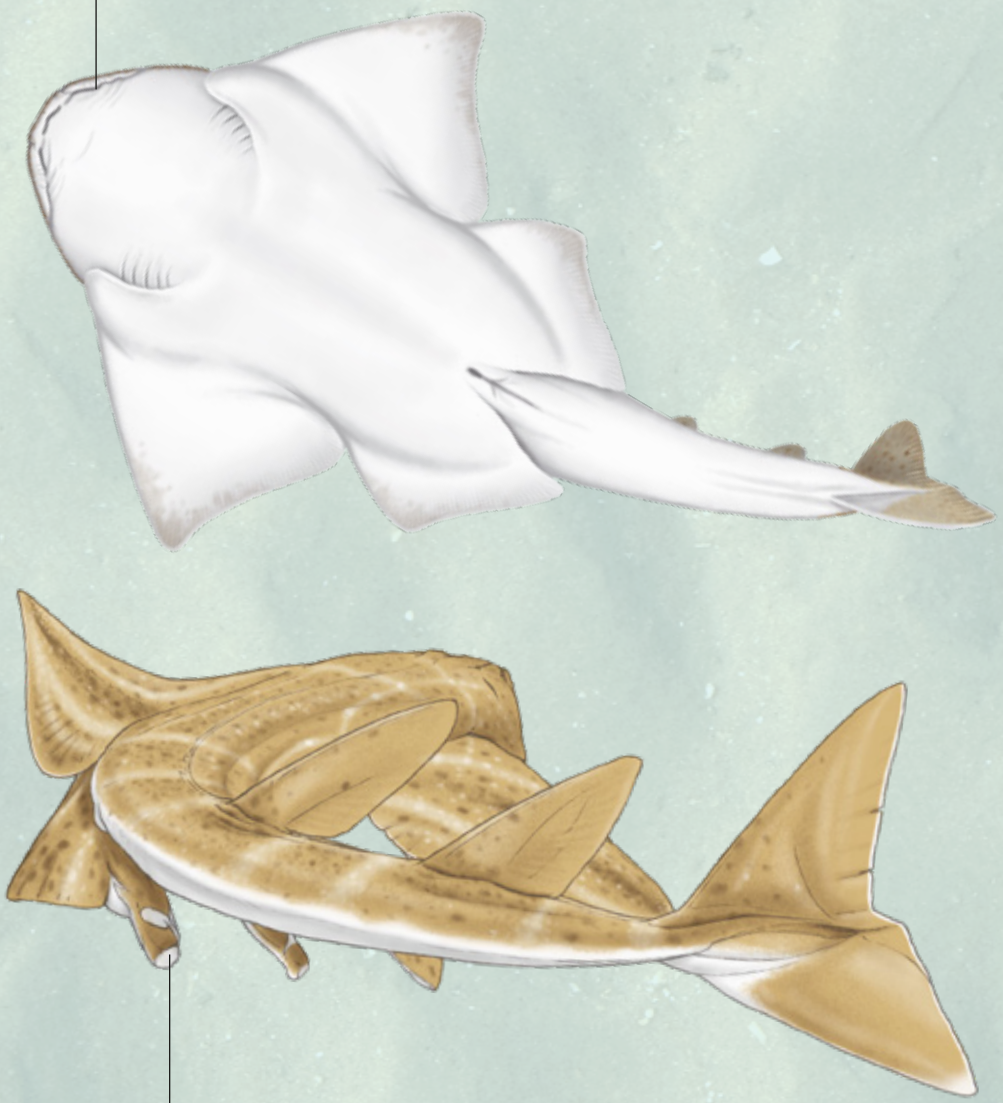
- Angelshark (*S.squatina*)
- Smoothback Angelshark (*S.oculata*)
- Sawback Angelshark (*S.aculeata*)

Benthic species, which is very adapted to its environment through excellent camouflage and burying behaviour into the sand, so that it is not detected by predators or prey.

Only the Angelshark (*Squatina squatina*) is found in the Canary Islands.

They have been recorded to 200m depth and a maximum total length of 2.4m

Dorso-ventrally flattened shark with a mouth in a terminal position, which helps us differentiate it from ray species.



You can easily differentiate between the sexes through looking for claspers (only males have claspers). This is more difficult to observe in juvenile Angelsharks as the claspers are less developed.

SHARKS AND RAYS IN THE CANARY ISLANDS

This document focuses on the Angelshark, but we encourage fishers to use this best-practice guidance for any other shark or ray species that they accidentally catch during fishing – the most commonly encountered species are listed below.
Angel Shark Project: Canary Islands does not promote targeted shark or ray fishing.

SPECIES INFORMATION:

Scalloped Hammerhead

Spanish name: Tiburón Martillo, Cornuda
English name: Scalloped Hammerhead
Latin name: *Sphyrna lewini*
Special Protection on LESPRE* (Spanish Law)
Fisheries status: Very high vulnerability
Total length: Max: 430cm Common: 360cm.
Depth range: Max: 1000m, usually 0–25m
Fecundity: Viviparous, placental. 12–41 pups after a gestation period of 9-10 months Size at birth 39–57cm.

IUCN RED LIST ENDANGERED EN

*LESRPE = El Listado de Especies Silvestres en Régimen de Protección Especial (List of Wild Species under Special Protection)

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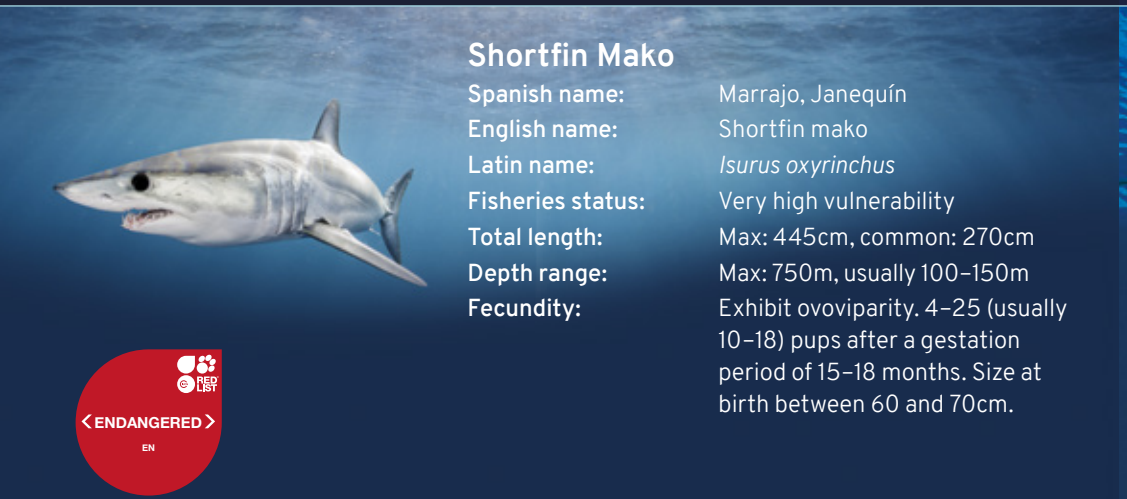

Shortfin Mako

Spanish name: Marrajo, Janequín
English name: Shortfin mako
Latin name: *Isurus oxyrinchus*
Fisheries status: Very high vulnerability
Total length: Max: 445cm, common: 270cm
Depth range: Max: 750m, usually 100–150m
Fecundity: Exhibit ovoviparity. 4–25 (usually 10–18) pups after a gestation period of 15–18 months. Size at birth between 60 and 70cm.

IUCN RED LIST ENDANGERED EN

Blue Shark

Spanish name: Tiburón azul, Tintorera
English name: Blue shark
Latin name: *Prionace glauca*
Fisheries status: Very high vulnerability
Total length: Max: 400cm, common: 335cm
Depth range: Max: 1000m, usually 1–220m
Fecundity: Viviparous, placental; 4–135 (usually 15–30) pups. Gestation period ranges from 9 to 12 months. Size at birth 35–44cm.

IUCN RED LIST NEAR THREATENED NT

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Silky Shark

Spanish name: Tiburón Sedoso
English name: Silky shark
Latin name: *Carcharhinus falciformis*
Fisheries status: Very high vulnerability
Total length: Max: 350cm, common: 250cm
Depth range: Max: 4000m, usually 0–500m
Fecundity: Viviparous, placental. 1–16 pups, born at 57–87cm. Females appear to breed every year, but there appears to be no reproductive seasonality.

IUCN RED LIST VULNERABLE VU

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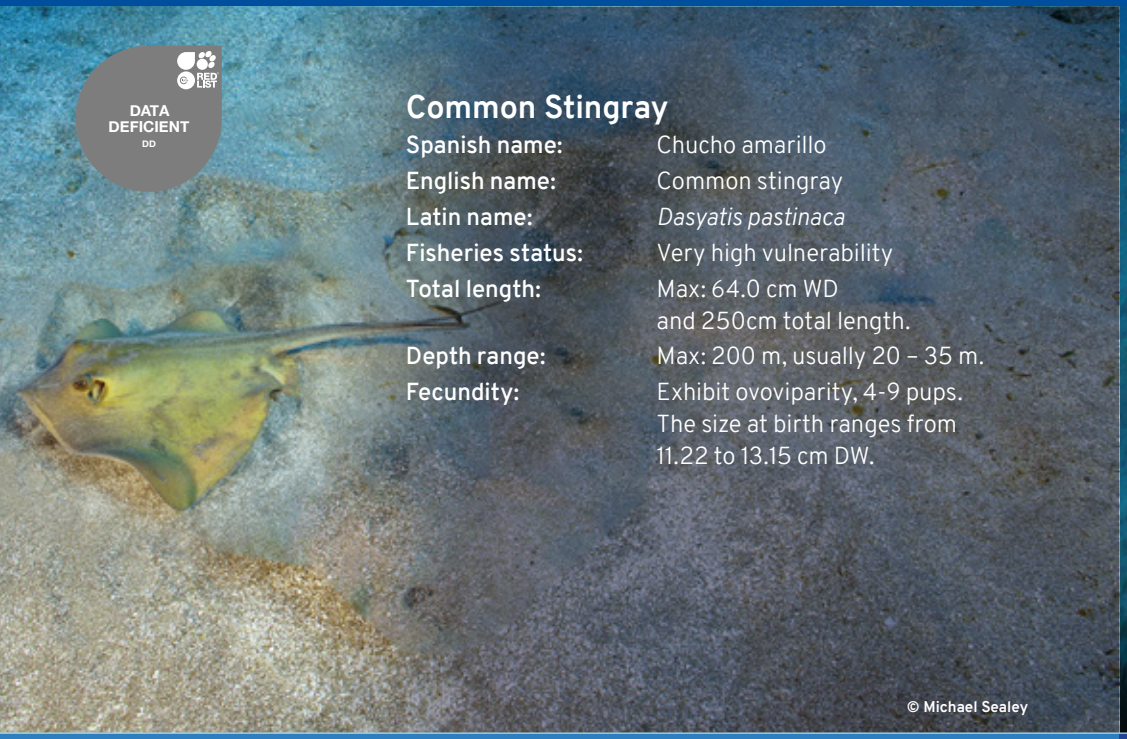

DATA DEFICIENT
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Common Stingray

Spanish name: Chucho amarillo
English name: Common stingray
Latin name: *Dasyatis pastinaca*
Fisheries status: Very high vulnerability
Total length: Max: 64.0 cm WD and 250cm total length.
Depth range: Max: 200 m, usually 20 – 35 m.
Fecundity: Exhibit ovoviparity, 4-9 pups. The size at birth ranges from 11.22 to 13.15 cm DW.

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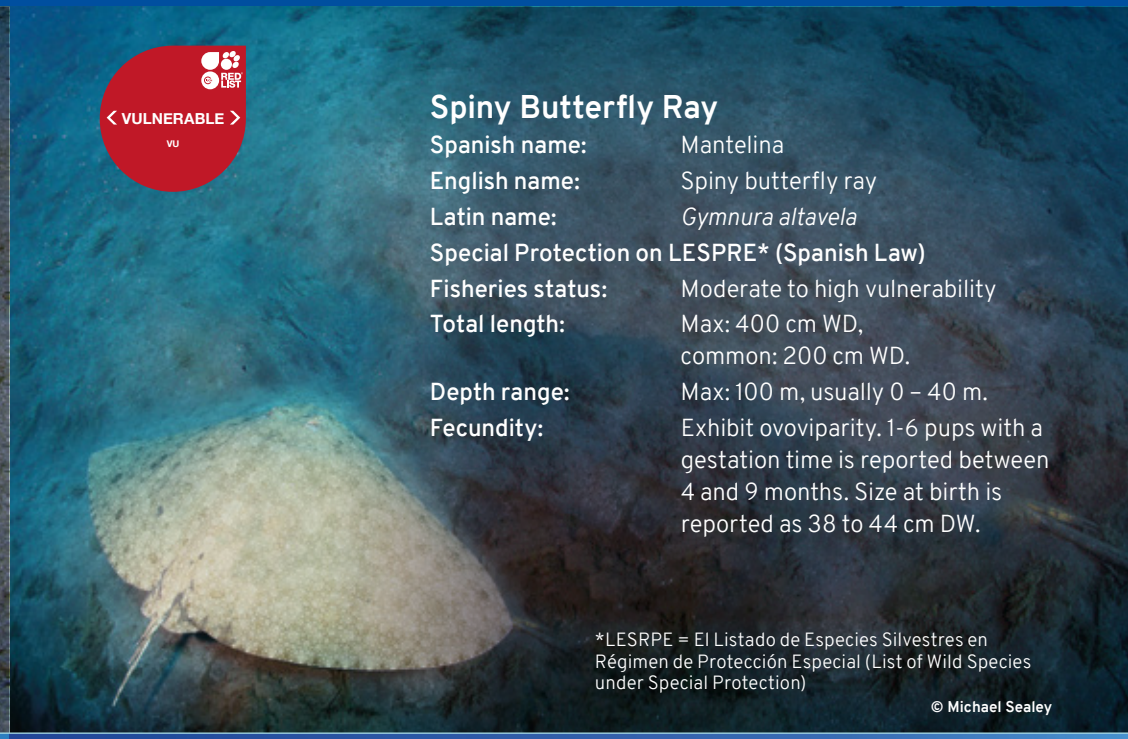

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Spiny Butterfly Ray

Spanish name: Mantelina
English name: Spiny butterfly ray
Latin name: *Gymnura altavela*
Special Protection on LESPRE* (Spanish Law)
Fisheries status: Moderate to high vulnerability
Total length: Max: 400 cm WD, common: 200 cm WD.
Depth range: Max: 100 m, usually 0 – 40 m.
Fecundity: Exhibit ovoviparity. 1-6 pups with a gestation time is reported between 4 and 9 months. Size at birth is reported as 38 to 44 cm DW.

*LESRPE = El Listado de Especies Silvestres en Régimen de Protección Especial (List of Wild Species under Special Protection)

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LEAST CONCERN
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Roughtail Stingray

Spanish name: Chucho de clavos
English name: Roughtail stingray
Latin name: *Bathytoshia centroura*
Fisheries status: Very high vulnerability
Total length: Max: 300 cm, common: 125 cm WD.
Depth range: Max: 270 m, usually 15 – 50 m.
Fecundity: Exhibit ovoviparity. Gestation about 4 months with 2 to 4 pups.

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DATA DEFICIENT
DD

Bull Ray

Spanish name: Obispo
English name: Bull ray
Latin name: *Aetomylaeus bovinus*
Fisheries status: Moderate to high vulnerability
Total length: Max: 222.0 cm WD; common: 150 cm WD.
Depth range: Max: 150 m, common: 0 – 60 m.
Fecundity: Exhibit ovoviparity. Gestation about 6 months with 3-7 pups. Size at birth 45 cm WD.

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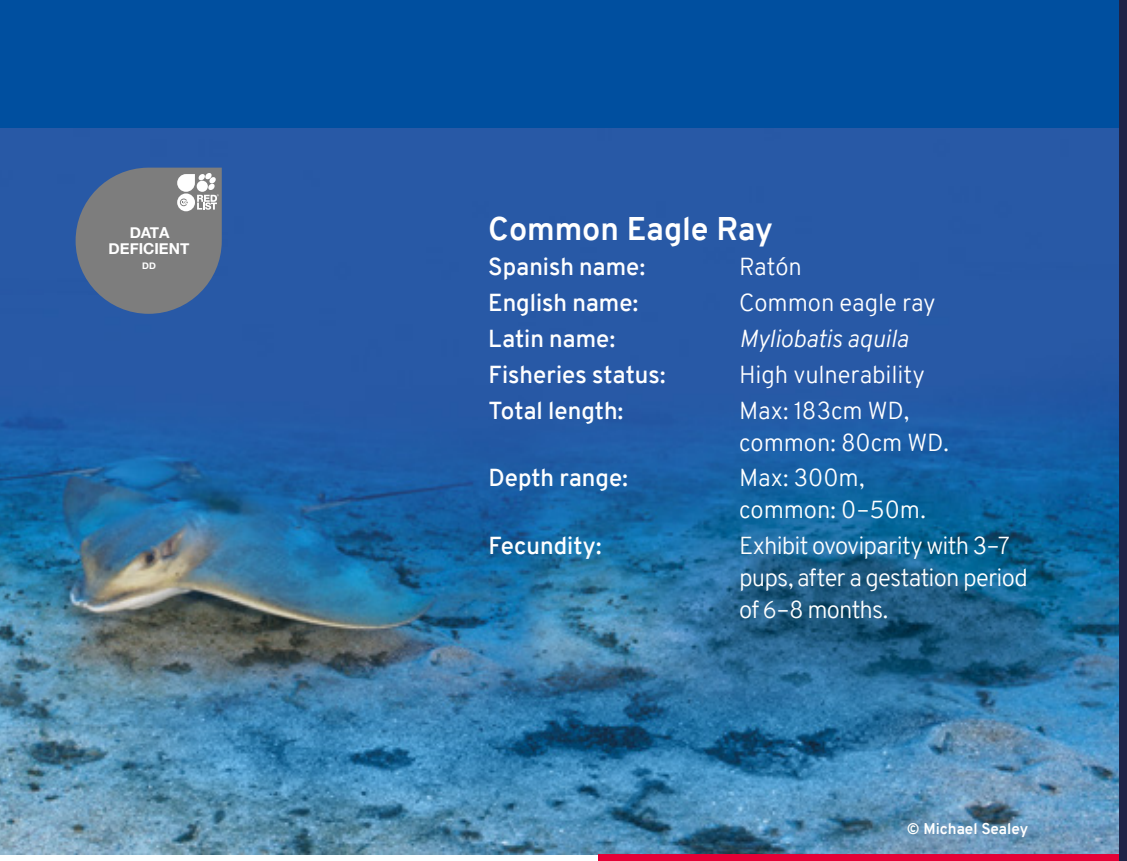

Common Eagle Ray

Spanish name:	Ratón
English name:	Common eagle ray
Latin name:	*Myliobatis aquila*
Fisheries status:	High vulnerability
Total length:	Max: 183cm WD, common: 80cm WD.
Depth range:	Max: 300m, common: 0–50m.
Fecundity:	Exhibit ovoviparity with 3–7 pups, after a gestation period of 6–8 months.

ANGEL SHARK PROJECT

About us

Angel Shark Project: Canary Islands is a collaboration between three European organisations: the University of Las Palmas in Gran Canaria (ULPGC), the Research Museum Alexander Koenig (ZFMK) and the Zoological Society of London (ZSL).

What are our objectives?

Our main objective is to safeguard the future of Critically Endangered Angelsharks in their unique stronghold.

www.angelsharkproject.com
info@angelsharkproject.com
@angelshark2014
Angel Shark Project
Angel Shark Project

What do we do?

Angel Shark Project: Canary Islands focuses on seven main areas of work:

- Citizen Science and work with recreational divers.
- Research into the ecology, movement and distribution of adult Angelsharks.
- Identification and monitoring of the different Angelshark nursery areas throughout the archipelago.
- Collaboration with the fishing community (recreational and commercial) to reduce the impact on Angelsharks.
- Provide evidence to governments to promote legislative change.
- Raise awareness about the importance of the Canary Islands for Angelshark conservation.
- Develop the Angel Shark Conservation Network.

Where do we work?

The Angel Shark Project has two regional projects: Angel Shark Project: Canary Islands and Angel Shark Project: Wales, but we also work in the Mediterranean and west coast of Africa as part of the Angel Shark Conservation Network.

Who do we collaborate with?

Fishers, divers, governments, local and international NGOs and researchers.

ANGEL SHARK PROJECT: CANARY ISLANDS

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