



# SHARK FACTS

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The Shark Trust supports the  
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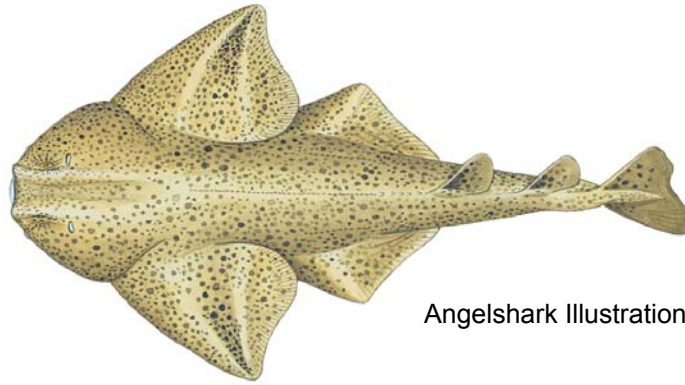
## Angelshark (*Squatina squatina*)

### Taxonomy

Angelsharks are of the family Squatinidae and they get the name "Angelshark" from the large pectoral fins which give it an angelic appearance. The British Angelshark is *Squatina squatina* although there are 18 other species of Angelshark found world wide<sup>7</sup>.

### Description

Angelshark morphology looks more like that of a ray rather than that of a shark. The body structure is flat, with a broad trunk, and large high pectoral fins which do not attach to the head as rays pectoral fins do. It has two spineless dorsal fins, no anal fin, and a well-developed caudal fin with the lower lobe longer than the upper<sup>7</sup>. The skin colour ranges from grey to reddish or even sometimes seen to be greenish brown in colour, with small white spots and blackish dots scattered over the body; this colouring is used to camouflage the Angelshark in the sand which it hides in to hunt. The mouth is nearly terminal, meaning at tip of the snout and is near the nostrils where there are whisker-like nasal barbels; these are inserted into the sand help sense approaching prey. Its eyes are large, rounded with vertical slit pupils<sup>4</sup>. The eyes are present on the dorsal side of the body<sup>2</sup> with the spiracles just behind them as the 5 gill slits are present on the ventral side.



Angelshark Illustration © Marc Dando

A mature Angelshark can grow to about 250cm in length. Males range from sizes between 80 to 183cm, and females reach maturity when they are about 130 to 244 cm. The longevity and maturity age are unknown<sup>1</sup>.

### Distribution

The original range of the Angelshark was from southern Norway, Sweden and the Shetland Islands to the North-western regions of Africa (West Sahara, Mauritania and Canary Islands). These regions also included the Mediterranean and the Black Sea<sup>1,2,3</sup>.

This distribution range has been severely reduced as a result of population depletion; Angelsharks are now extinct from regions in the North Sea (ICES ACFM 2005) and no longer seen in the Northern Mediterranean regions<sup>1</sup>.

The Angelshark is a bottom dweller and prefers muddy or sandy sea beds<sup>3</sup>. The known depth range of angel sharks is from the intertidal zone down to at least 1,390 metres The known range for *Squatina squatina* is 5 m inshore on coasts to depths about 150 m on the continental shelf<sup>4</sup>.

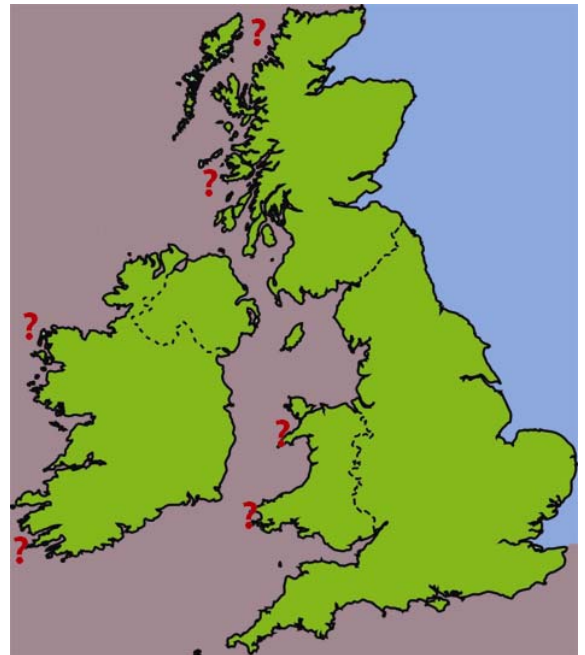


Illustration showing: past recorded UK distributions of *Squatina squatina* and possible locations of individuals (?)

## Behaviour

During summer the Angelshark tends to migrate towards colder waters, showing seasonal migration patterns which only a few Angelshark species display<sup>2</sup>. The Angelshark is nocturnal spends most of the day lying on the sea bottom camouflaged and covered with mud or sand; during the night it is seen swimming close to the sea floor. It is an ambush predator and will lie still and hidden until a prey animal is within striking range; then it rapidly snaps up its head expanding its pharynx, and protrudes its jaws over the prey. The Angelshark mainly feed on a variety of bony fishes such as flat fish, skates, hake, sparids, grunts and sole. Its diet also includes certain molluscs such as squid and large bivalves, and even a variety of small crustaceans and gastropods. Odd items such as eelgrass are consumed from time to time when feeding<sup>1,3</sup>. There is one record, where the Angelshark is seen to have swallowed a cormorant<sup>1,2</sup>.



Angelshark © Simon Rogerson

## Reproduction

Angelsharks are ovoviviparous. The embryos feed mainly on the yolk. Size at birth ranges from 24 -30 cm<sup>3</sup>. The Gestation period lasts about eight to ten months. During this time, a female Angelshark can be carrying a litter of 9 to 20 pups at a time. This range of pups mainly depends on the size of the female, as in younger females which are smaller in size have a smaller litter while older larger females may have a higher number of pups<sup>2,3</sup>.

## Conservation Status

On the IUNC red list (2007), the Angelshark has been deemed as critically endangered<sup>5</sup>. It is also acknowledged in the Annex III of the Barcelona Convention<sup>1</sup>. The Oslo-Paris Commission (OSPAR) has also added six new species to its list of threatened and declining species list, among them is the Angelshark<sup>6</sup>. Currently this shark species has been protected in some of the Balearic Islands marine reserves, and the fishing of the Angelshark is now strictly forbidden. On 19<sup>th</sup> December 2008 Fisheries Council EU Ministers agreed to the mandatory live release of Common and White Skate, the Angel Shark and the Undulate Rays when caught by commercial fishers. The Shark Trust has campaigned extensively for the protection of these species through domestic and international policy and was instrumental in securing the protection of Angel Shark in the waters of England and Wales earlier in 2008<sup>8</sup>.

## Threats

Large populations of the Angelshark were lost to the bycatch of demersal trawlers, as the shark is a bottom dweller and lies on the ocean floor for most of its time. Benthic trawl effort has increased in both intensity and efficiency on the shelf and slope area of the Northeast Atlantic and Mediterranean over the last 50 years. The species is also caught in trammel nets and bottom longlines throughout its range. Human disturbance by habitat degradation and tourism are also possible threats to its preferred sandy near shore habitat. There is evidence for dramatic declines from historic data from a tuna trap operating in the Northern Tyrrhenian Sea with catches of the genus *Squatina* reported at an average of 134 specimens from 1898 to 1905, down to 15 between 1914 and 1922 (Vacchi *et al.* 2002). This early decline probably marks the beginning of trawling activity in the area, to which angel sharks are highly susceptible. A low rate of exchange between *Squatina* populations may makes them especially prone to local depletion and means that recolonisation will be extremely low.

## References

1. IUCN Red List for Threatened Species <http://www.iucnredlist.org/search/details.php/39332/summ>
2. Collins field guide; Sharks of the world, 2005, Leonard Compagno, and Sarah Fowler
3. Fish Base: *Squatina squatina* <http://www.fishbase.org/Summary/SpeciesSummary.php?id=736>
4. Marine Life Information Network for Britain and Ireland <http://www.marlin.ac.uk/species/Squatinasquatina.htm>
5. Shark Alliance Press Release 30th June 2008 <http://www.sharktrust.org/content.asp?did=30842>
6. OSPAR Northeast Atlantic Threatened Species List 26th June 2008 <http://www.sharktrust.org/content.asp?did=30810>
7. Elasmobranchs, Squatiniformes; Angelsharks [http://www.elasmo-research.org/education/shark\\_profiles/squatiniformes.htm](http://www.elasmo-research.org/education/shark_profiles/squatiniformes.htm)
8. Shark Trust press release 19 December 2008 [http://www.sharktrust.org/content.asp?did=32147&backto=u\\_search3.asp&curpage=&search=angel%20shark](http://www.sharktrust.org/content.asp?did=32147&backto=u_search3.asp&curpage=&search=angel%20shark)