

Dorsal View (♀)

Ventral View (♀)



COMMON NAMES

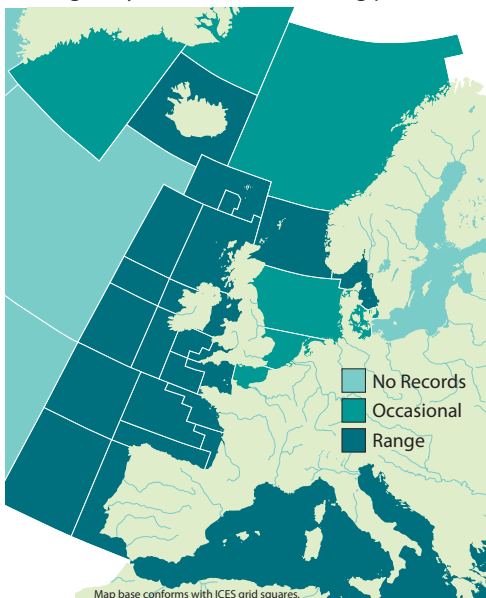
Common Skate, Blue Skate, Grey Skate, Pocheteau Gris (Fr), Noriega (Es).

SYNONYMS

Raja batis (Linnaeus, 1758), *Raja macrorhynchus* (Rafinesque, 1810), *Raja flossada* (Risso, 1826), *Raja intermedia* (Parnell, 1837), *Laeviraja macrorhynchus* (Bonaparte, 1839).

DISTRIBUTION

The Common Skate was historically found across much of the northeast Atlantic and Mediterranean (Luna, 2009). Its range has been greatly reduced due to fishing pressure and it is now almost extinct in the Mediterranean (Abdulla, 2004). Around the UK, individuals are occasionally reported from the Irish Sea, Bristol Channel and central North Sea but it would appear that its range is now effectively limited to northwest Scotland and the Celtic Sea. (Dulvy *et al.*, 2006).



APPEARANCE

- Large, up to 285cm total length.
- Long, pointed snout.
- Upper surface olive-grey to brown.
- Variable pattern of light spots and dark blotches.
- Lower surface black in juveniles, fading with age.
- Juveniles have large orbital thorns.

The Common Skate has a long and pointed snout giving the disc a broadly rhombic shape with the front margins distinctly concave. The dorsal surface of the disc is olive-grey or brown with a variable pattern of light spots and dusky blotches. In sub-adults there is often a marking on each pectoral fin resembling an eye spot (Whitehead *et al.*, 1986). The ventral surface of the disc is black in juveniles and fades to grey as the animal matures (Neal *et al.*, 2008). The mucus pores on both sides of the disc are marked with black spots and short streaks which are particularly numerous on the lower surface (Whitehead *et al.*, 1986).

Juveniles are smooth on both surfaces of the disc but often have large orbital thorns. Adults are partly prickly on both the upper and lower surfaces but have no thorns on the disc. There are two rows of 12-18 thorns along the tail (measured from the cloaca) and normally one or two thorns between the dorsal fins. Often there are thorns along the lower edges of the tail, particularly so in females (Luna, 2009).

They are the largest skate found in European waters with females reaching a maximum total length of 285cm. They have between 40 and 56 rows of teeth and may live for 50-100 years (Luna, 2009; Dulvy *et al.*, 2006; Neal *et al.*, 2008).

SIMILAR SPECIES

Dipturus nidarosiensis, Black Skate

Dipturus oxyrinchus, Long-nosed Skate

Rostroraja alba, White Skate

Dipturus batis,
Common Skate

Dipturus nidarosiensis,
Black Skate

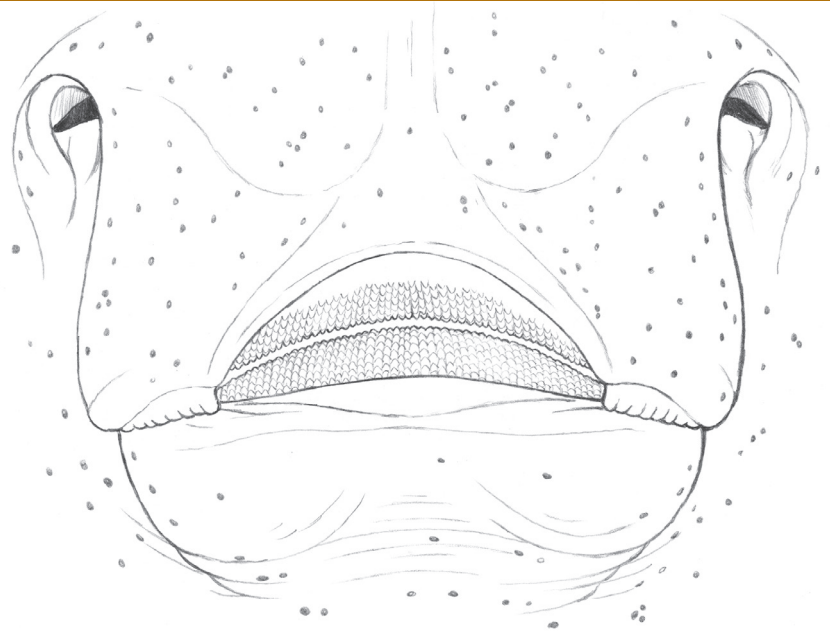
Dipturus oxyrinchus,
Long-nosed Skate

Rostroraja alba,
White Skate

(Not to scale)

TEETH

There are between 40–56 rows of teeth (Luna, 2009).



ECOLOGY & BIOLOGY

HABITAT

Like most skates and rays, the Common Skate is a bottom dwelling species that is found from coastal waters to a depth of approximately 600m (1,970ft), although it is most commonly found around 200m (670ft) (Dulvy *et al.*, 2006). Unlike most other skate, it is active both day and night (Luna, 2009).

DIET

The Common Skate has been recorded as feeding on several species of skate (*Raja* spp.), dogfish (*Squalus* spp.), catshark (*Scyliorhinus* spp.), anglerfish (*Lophius* spp.), gurnards (*Dactyloptena* spp.), flatfishes, pilchards, herring (*Clupea* spp.) and scad (*Trachurus* spp.). Lobsters, crabs and cephalopods (particular *Eledone* spp.) are also important (Wheeler, 1969). It hunts actively, enveloping prey before consuming it (Dulvy *et al.*, 2006). Mid-water species are captured by the skate propelling itself rapidly upward, enveloping and gripping the fish before returning to the seabed to consume it (Wheeler, 1969).

REPRODUCTION

The Common Skate takes around 11 years to reach sexual maturity at a length of around 150cm for males and 180cm for females. Females only breed every other year, mating in spring and laying up to 40 eggcases during summer which are deposited in sandy or muddy flats (Neal *et al.*, 2008). These eggcases are large, measuring up to 25cm long (excluding the horns) and 15cm wide and are covered with close-felted fibres (Neal *et al.*, 2008; Dulvy *et al.*, 2006). They have been reported as being loose on the seabed and occasionally secured between rocks. The embryos take between 2–5 months to develop depending on temperature and the juveniles are born measuring 21–22cm long (Neal *et al.*, 2008; Clark, 1926).

EGGCASE

1. Very large, 120–250mm in length (Neal *et al.*, 2008).
2. Distinct lateral keels.
3. Very deep anterior fields (Luna, 2009).

Similar eggcase to the Long-nosed Skate, *Dipturus oxyrinchus*.



(Eggcase shown half actual size)

COMMERCIAL IMPORTANCE

Historically important, the Common Skate has been targeted across its range wherever and whenever it has been abundant. This has led to serious declines in stocks making it a financially unsound species to target commercially. Until recently it was still caught and landed by multispecies trawl fisheries operating over the vast majority of its habitat (Dulvy *et al.*, 2006). From January 2009 there has been a prohibition on commercial fishers retaining this species in ICES areas IIa, IIIa, IV, VI, VII, VIII & IX.

The Common Skate is a popular species with recreational anglers due to its large size but if these fish are returned alive there is a good chance of them surviving (Catchpole *et al.*, 2007). A catch and release scheme involving recreational anglers in the Sound of Mull, Scotland, generates an estimated £1,000,000 a year from a stock of around 500 fish (Holt, 2005).

THREATS, CONSERVATION, LEGISLATION

The large size of the Common Skate allows it to be caught by most fishing gear from birth, giving individuals little or no chance to reach maturity in heavily fished areas (UK Biodiversity Action Plan; 1999). Combined with relatively late maturity and low population increase rates, the Common Skate is extremely vulnerable to fishing pressure. This has been seen in a drastic decline in populations during the 20th century, particularly around the UK. It has been extirpated from the majority of British coastal waters and is now only regularly found in northwest Scotland, the Shetlands and the Celtic Sea. French landings appear to be stable but this is likely to be due to a redirection of the fishing effort from the continental shelf into deeper water where the population may currently be stable (Dulvy *et al.*, 2006).

In 1999, the Common Skate was included on the UK Biodiversity Action Plan (BAP) list. Though this does not provide any legal protection for the species in itself, it includes provisions to work towards European conservation legislation. Its main targets included plans to stabilise populations in refuge areas by 2004 and to facilitate the migration of animals from refuge populations to areas where they are scarce or extinct (UK Biodiversity Action Plan; 1999).

In 2009, the Common Skate received protection from the European Council in ICES areas IIa, IIIa, IV, VIIa-k, VIII and IX, meaning that it cannot be retained by commercial fishers if captured. As elasmobranchs have no swim bladder that can overinflate or rupture, they are more likely to survive capture and release than teleost fish (DEFRA; 2008). The mandatory release order is therefore likely to significantly reduce the level of fishing mortality.

The vast majority of recreational anglers in the UK return any Common Skate they catch alive. Some angling clubs and the majority of charter boats tag and release Common Skate when caught, an activity which provides a sustainable source of income for many communities (Holt, 2005).

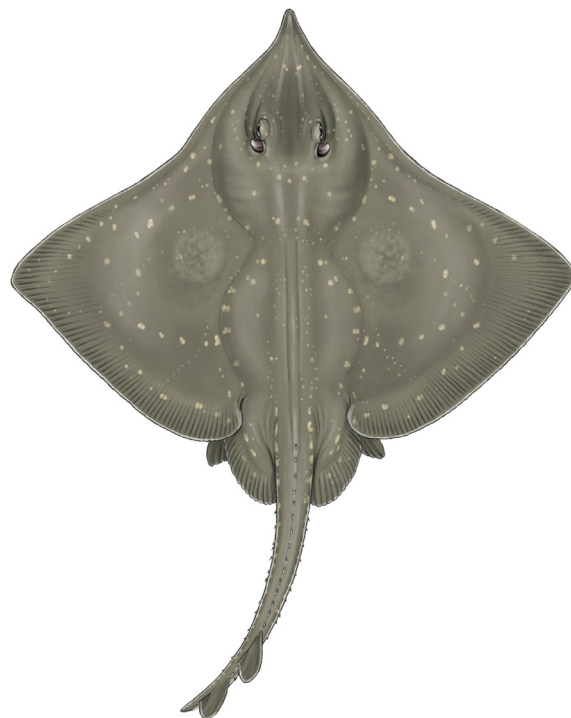
IUCN RED LIST ASSESSMENT

Critically Endangered (2006).

Critically Endangered in northeast Atlantic.

HANDLING AND THORN ARRANGEMENT

- Handle with care.
- Strong rows of thorns on midline.
- Thorns between dorsal fins.



TAXONOMIC NOTE

Since this factsheet was produced, genetic research has revealed that the Common Skate, *Dipturus batis*, is in fact two distinct species. These have been named *D. intermedia* and *D. flossada*. Common names already in use for these species are the Flapper Skate and Blue Skate respectively, although it remains to be seen if these become widely accepted.

The two species appear to have different distributions and biological characteristics. Of the two, *D. intermedia* is slower growing and reaches a larger size. The first data published suggests a size at 50% maturity of 197.5cm (♀) and 185.5cm (♂) for *D. intermedia*, compared to 122.9cm (♀) and 115cm (♂) for *D. flossada*. The largest positively identified specimen of *D. flossada* was 143.2cm in length. It seems the maximum total length of 285cm previously attributed to *D. batis* must be *D. intermedia*.

While the ranges of the species overlap it appears that *D. intermedia* is limited to west Scotland and west Ireland, with *D. flossada* limited to the southern Irish and Celtic Seas and the Rockall Trough. This appears to be closely related to temperature.

The most reliable means of distinguishing these species seems to be the colour of the iris. In *D. intermedia* it is dark green/olive, in *D. flossada* it is pale yellow. Other morphometric features to check are the malar thorns, lateral tail thorns, interdorsal space and tooth bases. Colouration can differ on the ventral surface and on the centre of the wings. For a full discussion of these differences see Iglésias *et al.*, 2009, available online.

REFERENCES

- ABDULLA, A. 2004. Status and Conservation of Sharks in the Mediterranean Sea. IUCN Global Marine Programme.
- CATCHPOLE, T. L., ENEVER, R., DORAN, S. 2007. Programme 21: Bristol Channel Ray Survival. CEFAS. Lowestoft, UK.
- CLARK, R. S. 1926. Rays and Skates. A Revision of the European Species. Fishery Board for Scotland. HM Stationary Office. Edinburgh, UK.
- DEFRA. 2008. Impact Assessment of Tope Shark Protection Measures. www.defra.gov.uk.
- DULVY, N. K., NOTOBARTOLO DI SCIARA, G., SERENA, F., TINTI, F., UNGARO, N., MANCUSI, C., ELLIS, J. 2006. *Dipturus batis*. In: IUCN 2008. 2008 IUCN Red List of Threatened Species. www.iucnredlist.org.
- HOLT, D. 2005 Common Skate Tagging Programme. The Scottish Angling Homepage: www.catchalot.co.uk.
- IGLÉSIAS, S. P., TOULHOAT, L., SELLOS, D. Y. 2009. Taxonomic confusion and market mislabelling of threatened skates: important consequences for their conservation status. *Aquatic Conserv: Mar. Freshw. Ecosyst*. Published Online 2009.
- LUNA, S. M. 2009. *Dipturus batis*. Blue Skate. Fishbase. www.fishbase.org.
- NEAL, K. J., PIZZOLLA, P. F., WILDING, C. M. 2008. *Dipturus batis*. Common Skate. Marine Life Information Network: Biology and Sensitivity Key Information Sub-programme [on-line]. Plymouth: Marine Biological Association of the United Kingdom. www.marlin.ac.uk.
- UK BIODIVERSITY ACTION PLAN. 1999. Species Action Plan: Common Skate (*Dipturus batis*). www.ukbap.org.uk.
- WHEELER, A. 1969. The Fishes of the British Isles and North-West Europe. Macmillan and Co Ltd. London, UK.
- WHITEHEAD, P. J. P., BAUCHOT, M. L., HUREAU, J. C., NIELSEN, J.,

Text: Richard Hurst.
Illustrations: Marc Dando.

Citation

Shark Trust; 2009. An Illustrated Compendium of Sharks, Skates, Rays and Chimaera. Chapter 1: The British Isles. Part 1: Skates and Rays.

Any amendments or corrections, please contact:
The Shark Trust
4 Creykes Court, The Millfields
Plymouth, Devon PL1 3JB
Tel: 01752 672008/672020
Email: enquiries@sharktrust.org

For more ID materials visit www.sharktrust.org/ID.

Registered Company No. 3396164.
Registered Charity No. 1064185