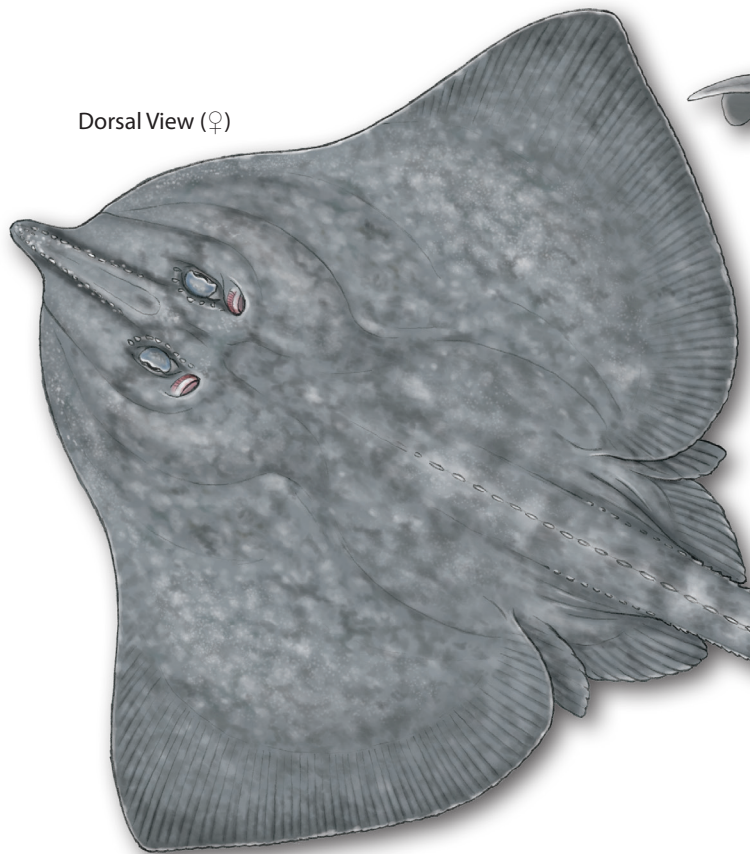
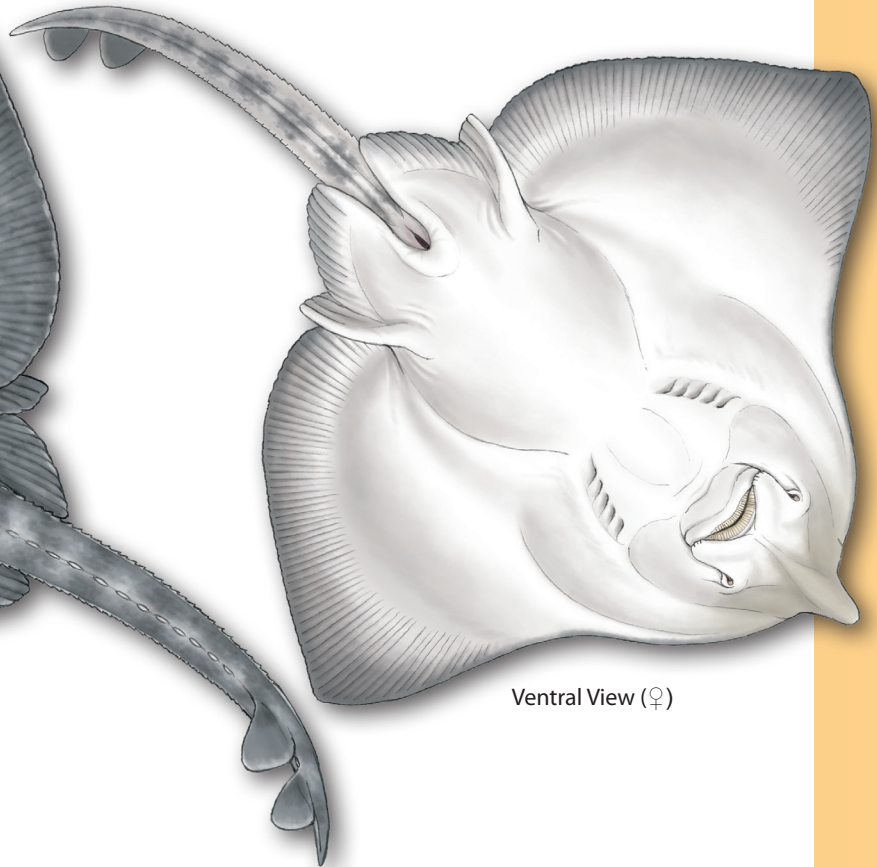


Dorsal View (♀)



Ventral View (♀)



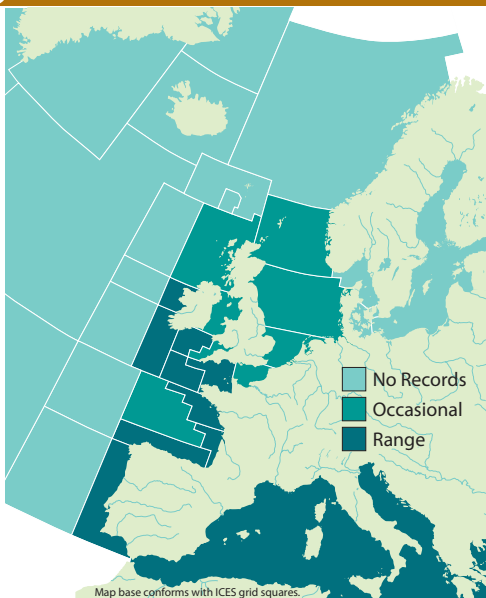
### COMMON NAMES

**White Skate**, Bordered Skate, Bottlenosed Skate, Burton Skate, Spearnose Skate, White-Bellied Skate, Raie Blanche (Fr), Bandroche (De), Raya Bramante (Es), Razza Bianca (It).

### SYNONYMS

*Raja alba* (Lacepède, 1803), *Raja marginata* (Lacepède, 1803), *Raja rostellata* (Risso, 1810), *Raja bicolor* (Risso, 1826), *Raja marginata* (Bonaparte, 1834), *Raja bramante* (Sassi, 1846), *Laeyiraja bramante* (Sassi, 1846), *Lotaraja marginata* (Leigh-Sharpe, 1924).

### DISTRIBUTION



No longer common across any of its range, the White Skate can be found from Ireland and southern England to South Africa and into the southwest Indian Ocean. There are records from the Atlantic north of the UK but these have not been verified (Dulvy *et al.*, 2006). It is also found in the western Mediterranean as far as Tunisia and Greece (Whitehead *et al.*, 1986).

### APPEARANCE

- Large, up to 200cm total length.
- Long snout with broad base.
- Tail slightly shorter than body.
- Dorsal surface grey blue in adults, red brown in juveniles.
- Ventral surface white with dark margins.
- Median row of ~15 large thorns along midline.
- Strong rows of thorns on either side of tail lower edge.
- One thorn between dorsal fins.

The White Skate is one of the largest European skate, reaching 200cm in length. It is most commonly found between 60-150cm however (Dulvy *et al.*, 2006). It has a long snout with a broad base and a narrow tip, leading into a large, broadly rhombic disc. The outer corners of the pectoral fins are acute with concave leading edges (Whitehead *et al.*, 1986). The tail is often slightly shorter than the body (Barnes, 2008).

Juveniles have a smooth dorsal surface, gradually becoming spinier as the skate matures. Patches on the pectoral fins remain bare in larger specimens. Larger thorns are found in front and behind the eye in younger specimens and in a median row of about 15 on the tail, rarely reaching the hind fins. Also on the tail there is one thorn between the dorsal fins and strong rows on either side of the lower edge of the tail. The ventral surface of the disc is smooth in juveniles, becoming spinier as the animal matures (Whitehead *et al.*, 1986).

Colouration on the dorsal surface ranges from greyish-blue in adults to reddish-brown with numerous white spots in younger specimens. The ventral surface is white with dark margins around the pectoral and pelvic fins and along the tail (Whitehead *et al.*, 1986).

## SIMILAR SPECIES

*Dipturus batis*, Common Skate

*Dipturus nidarosiensis*, Black Skate

*Dipturus oxyrinchus*, Long-nosed Skate

*Rostroraja alba*,  
White Skate

*Dipturus batis*,  
Common Skate

*Dipturus nidarosiensis*,  
Black Skate

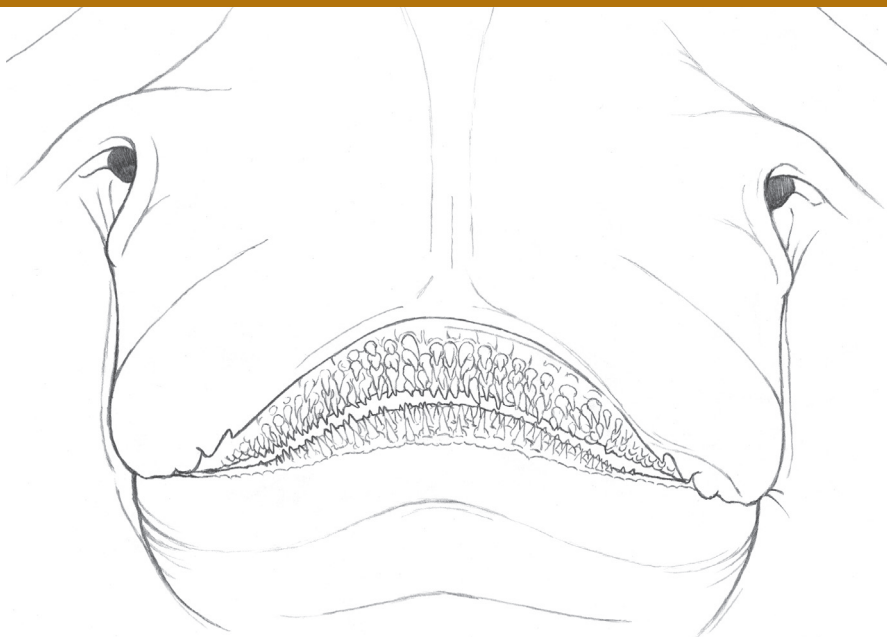
*Dipturus oxyrinchus*,  
Long-nosed Skate

(Not to scale)



### TEETH

There are 48 rows of teeth in the upper jaw. The middle series have long, conical points. The side series are more obtuse with short points (Clark, 1926).



### ECOLOGY & BIOLOGY

#### HABITAT

The White Skate is a demersal species found in sandy and rocky habitats from 40-400m (130-1,310ft). It has been exceptionally found as deep as 500m (1,640ft) (Dulvy *et al.*, 2006).

#### EGGCASE

1. Large, 125-183mm in length (excluding horns).
  2. Very square capsule, almost as wide as it is long.
  3. Strong ridges run from top to bottom (Shark Trust; 2008).
- Similar eggcase to the Blonde Ray, *Raja brachyura*.

#### DIET

Its diet is poorly understood but it most likely feeds on bottom dwelling animals such as fish (teleost fish and other elasmobranchs), crustaceans (crabs, shrimps and mysids) and cephalopods (octopi and cuttlefish) (Agustin, 2009).

#### REPRODUCTION

Very little is known of the reproductive strategy or life history of the White Skate. It is thought that females mature around 130cm in length, males around 120cm (Serena, 2005). Like all true skate, the White Skate is oviparous. It produces 55-156 ova a year which measure 125-183mm in length (excluding horns) and 100-138mm in width, one of the larger eggcases found around Europe (Dulvy *et al.*, 2006; Shark Trust, 2008). The incubation period is around 15 months but the size of the hatchlings at birth is not certain, although Clark (1926) gives a figure of 29.2cm total length (Clark, 1926).



(Eggcase shown half actual size)

## COMMERCIAL IMPORTANCE

Target fisheries for the White Skate have existed in the past but have always lead to rapid stock depletion and the subsequent closure of the fishery, such as in the French port of Douarnenez in the mid 1960's (Iglésias *et al.*, 2007). It was taken as bycatch of multispecies trawl fisheries in the Mediterranean and off the Iberian Peninsula, where it was landed for consumption if caught (Dulvy *et al.*, 2006).

## THREATS, CONSERVATION, LEGISLATION

As with other large skate, the White Skate is long lived, slow growing, matures late and has relatively few young. These characteristics make it extremely susceptible to anthropogenic pressure, particularly overfishing (Dulvy *et al.*, 2006). ICES scientists estimate that the White Skate is severely depleted and possibly extirpated from the Celtic Sea and it is now so rarely landed in France that fish markets have stopped using the name (MCS, Unknown; Iglésias *et al.*, 2007). In the port of Concarneau, landings of white skate declined by 99.4% between 1964 and 2006 (Iglésias *et al.*, 2007).

In 2002, a proposal to include the White Skate on Schedule 5 of the Wildlife and Countryside Act (1981) was not adopted (JNCC, Unknown). It is included in the Barcelona and Bern conventions (Dulvy *et al.*, 2006).

In 2007, the White 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 and to facilitate the migration of animals from refuge populations to areas where they are scarce or extinct.

In 2009, the White Skate received protection from the European Council in ICES areas VI, VIIa-c, VIIe-k, VIII and IX, meaning that it cannot be targeted or retained if taken as bycatch. 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.

## IUCN RED LIST ASSESSMENT

Endangered (2006).

Critically Endangered in northeast Atlantic.

## HANDLING AND THORN ARRANGEMENT

- Handle with care.
- Median row of large thorns.
- Row of thorns on lower edge of tail.
- Thorn between dorsal fins.



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