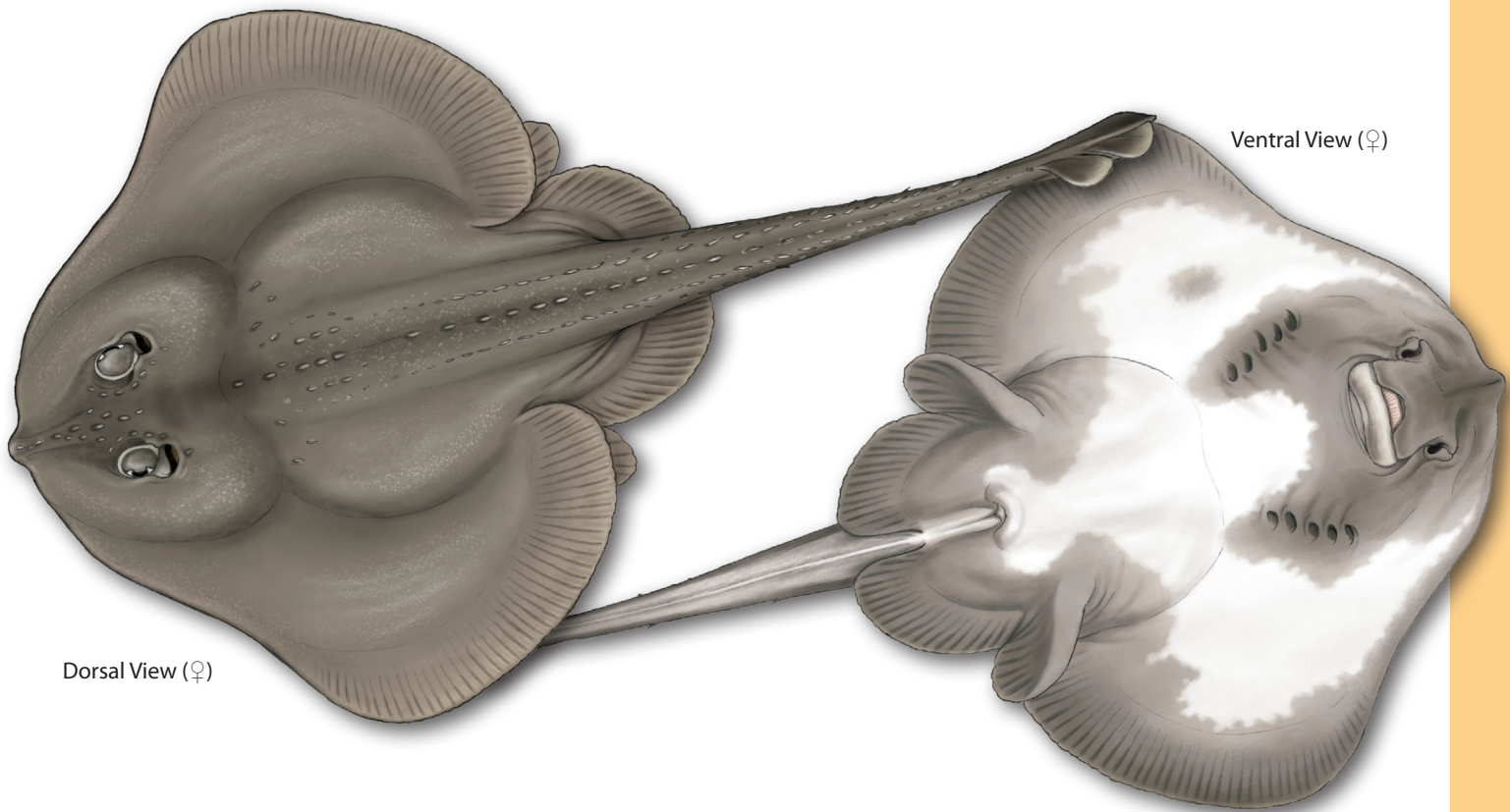




Dorsal View (♀)

Ventral View (♀)

COMMON NAMES

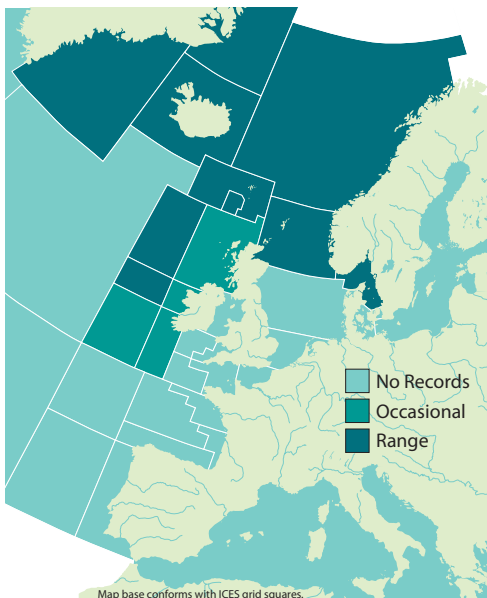
Round Ray, Round Skate, Sandy Skate, Raie Ronde (Fr), Raya Redonda (Es).

SYNONYMS

Raja fyllae (Lütken, 1888), *Raja circularis* (Günther, 1887), *Raja falsavela* (Smitt, 1895), *Raja fyllae lipacantha* (Jensen, 1905).

DISTRIBUTION

Found across the North Atlantic. In the northeast Atlantic, the Round Ray is known from Spitsbergen to southern Norway, Iceland, the Faeroe Islands, the Shetlands, the western coasts of the British Isles and the Bay of Biscay. In the northwest Atlantic it is found from Greenland to Nova Scotia (Agustin, 2009). There is a single questionable report from Morocco (Whitehead *et al.*, 1986).



Map base conforms with ICES grid squares.

APPEARANCE

- Maximum 55cm total length.
- Short snout and distinctive rounded disc.
- Dorsal surface grey to dark brown.
- Juveniles have dark spots and blotches.
- Ventral surface white to grey.
- Tail very long with dark spots or banding.

The Round Ray has a very short snout with greatly rounded edges to the disc, giving the skate its common name. Along the leading edge of the disc, males are undulate whilst females and juveniles are concave (Stehmann and Bürkel, 2000). The tail is noticeably longer than the body and is usually plain coloured, distinguishing it from the Winter Skate, *Leucoraja ocellata*, and Little Skate, *Leucoraja erinacea*, in the northwest Atlantic. The dorsal surface of the disc is grey to dark brown and sometimes paler in adults, younger animals have distinct dark blotches. The ventral surface ranges from white to grey. The tail often has dark banding or spots which extend to the pelvic fins and along the margins of the disc (Whitehead *et al.*, 1986).

The dorsal surface of the disc is entirely rough with many prickles on the pectoral fins and thornlets concentrated on the head and on the rear of the disc. Males have bare patches on the pectoral fins whilst females have a patch of large thorns on the inner portion of the pectorals. There is a complete row of 5-9 thorns around the inner margin of the eye in larger specimens and a large triangle of thorns on the shoulder. Adults typically have thorns running along the whole midline of the disc to the end of the tail in several parallel lines (CMB, Unknown). If the dorsal fins are separate there may be a thorn between (Stehmann and Bürkel, 2000). The dorsal surface is smooth. The skate reaches a maximum total length of around 55cm (Whitehead *et al.*, 1986).



SIMILAR SPECIES

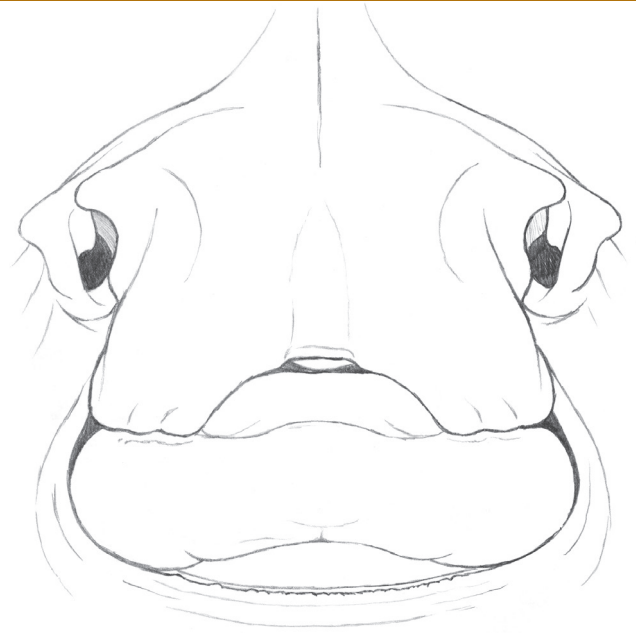
Rajella bigelowi, Bigelow's Ray (not illustrated)

Raja asterias, Starry Ray (not illustrated)

Raja rondeleti, Rondelet's Ray (not illustrated)

TEETH

The Round Ray has 30-38 rows of teeth in the upper jaw which are blunt, conical and cusped, perfect for eating crustaceans (CMB, Unknown). Males have sharper teeth than females (Clark, 1926).



ECOLOGY

HABITAT

The Round Ray is found at depths of 170-2,050m (560-6,725ft) on the upper slope and deeper shelf waters of the North Atlantic and is most common between 300-800m (985-2,625ft) (Gibson *et al.*, 2006; Whitehead *et al.*, 1986). It is found in waters ranging from 1-7°C (33.8-44.6°F) but prefers water temperatures of around 3-5.5°C (37.4-41.9°F) (Whitehead *et al.*, 1986; Agustin, 2009).

EGGCASE

1. 38-42mm in length (excluding horns).
 2. 24-26mm in width (Agustin, 2009).
- Similar eggcase to the Starry Skate, *Amblyraja radiata*.

DIET

The diet of the Round Ray has not been well studied but it apparently preys on small crustaceans, copepods, amphipods and mysids (Agustin, 2009). A study from the Barents Sea found that Polychaeta were the most important prey (31% by mass), followed by Northern Shrimp (26% by mass), Gammaridae (14% by mass) and fisheries waste (10% by mass) (Dolgov, 2005). Similar studies from the Grand Banks show Polychaetes form 80% of the diet of the Round Ray in that area, followed by Gammaridae (5%) (González *et al.*, 2006).

REPRODUCTION

The eggcases of the Round Ray measure 38-42mm long (excluding horns) and 24-26mm wide. They are deposited in sandy or muddy substrates and left to incubate (Agustin, 2009). Nothing more is known of their reproduction.



COMMERCIAL IMPORTANCE

The Round Ray is taken as bycatch in deepwater trawl and longline fisheries across the North Atlantic and is often discarded. Its wide depth range offers it refuge beyond the deepest depths presently reached by commercial fisheries (Gibson *et al.*, 2006).

THREATS, CONSERVATION, LEGISLATION

The Round Ray is small and has a reasonably high population increase rate making it resilient to fishing pressure. Its wide depth range offers it refuge from most fishing pressure, although it is still taken as bycatch in trawl and longline fisheries. The majority are discarded at sea. The available data on trends suggest that the population is relatively stable and is possibly increasing in some small areas (Gibson *et al.*, 2006).

All rajids are managed under a Total Allowable Catch (TAC) system in EU waters. Between 1999 and 2005 the 6,060t TAC was reduced by 47% and by a further ~50% from 2005 to 2008 (ICES, 2008). Originally the TAC applied only to areas IIa and IV, however in January 2009 the TAC was extended to include ICES divisions IIa, IIIa, IV, VIa-b, VIIa-k, VII and IX. The table below gives a summary of the TAC's for the years 2004 to 2009.

ICES Division	2004	2005	2006	2007	2009	2009
IIa, IV	3,503	3,220	2,737	2,190	1,643	1,643
IIIa	N/A	N/A	N/A	N/A	N/A	68
VIa-b, VIIa-c, VIIe-k	N/A	N/A	N/A	N/A	N/A	15,748
VIIId	N/A	N/A	N/A	N/A	N/A	1,044
VIII, IX	N/A	N/A	N/A	N/A	N/A	6,423

(All figures in tons. European Union, 2009)

Since 2008 European countries have been required to record most skate and ray landings by species to give a clearer picture of the status of populations in EU waters (ICES, 2008). Some Sea Fisheries Committees (SFC) around the UK have byelaws which stipulate a minimum disc width (DW) for landed skates and rays, measured from the extreme tips of the pectoral fins. The SFC's which implement these and the details are shown in the table below.

SFC	DW (cm)	Other
Cumbria	45	Cannot land wings less than 22cm in their maximum dimension
Kent & Essex	40	Cannot land wings less than 19cm in their maximum dimension
Southern	40	Cannot land wings less than 20cm in their maximum dimension
South Wales	45	Cannot land wings less than 22cm in their maximum dimension
States of Guernsey	36	

Cumbria SFC, Unknown; Kent & Essex SFC, Unknown; South Wales SFC, Unknown; Southern SFC, 2006; NFFO, 2004)

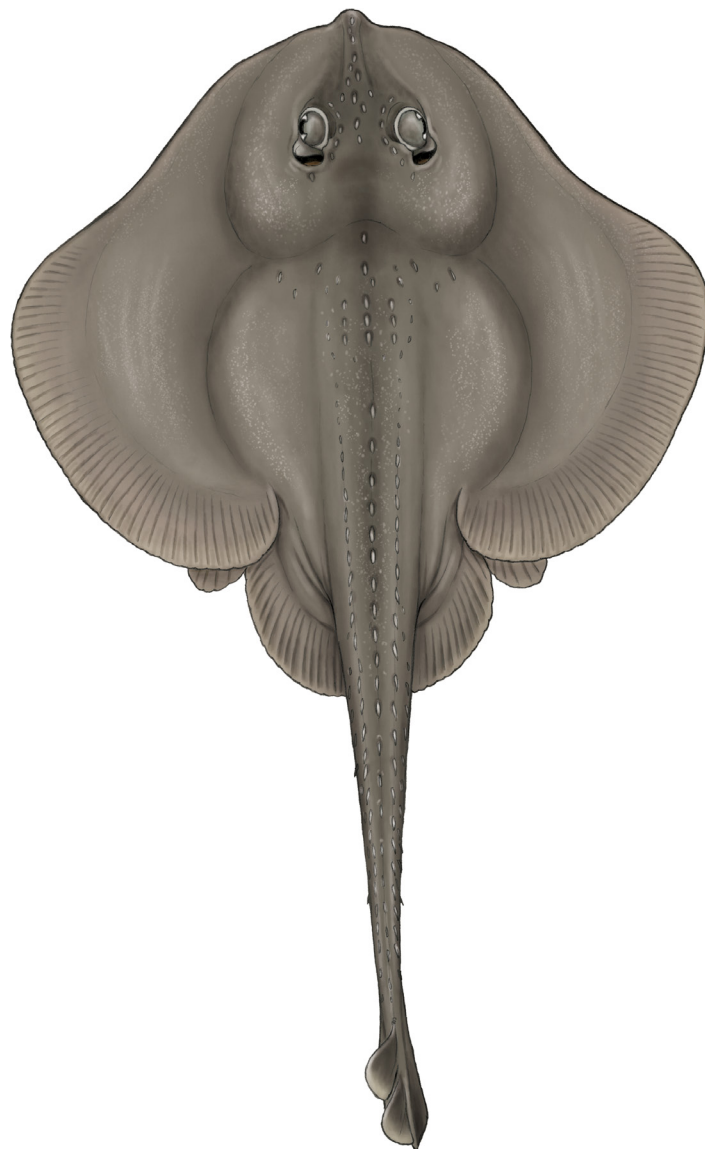
Many recreational anglers return any sharks, skates and rays they catch alive and some angling clubs have begun tag and release programmes (Holt, 2005).

IUCN RED LIST ASSESSMENT

Least Concern (2008).

HANDLING AND THORN ARRANGEMENT

- Handle with care.
- Several rows of midline thorns.



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Illustrations: Marc Dando.

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