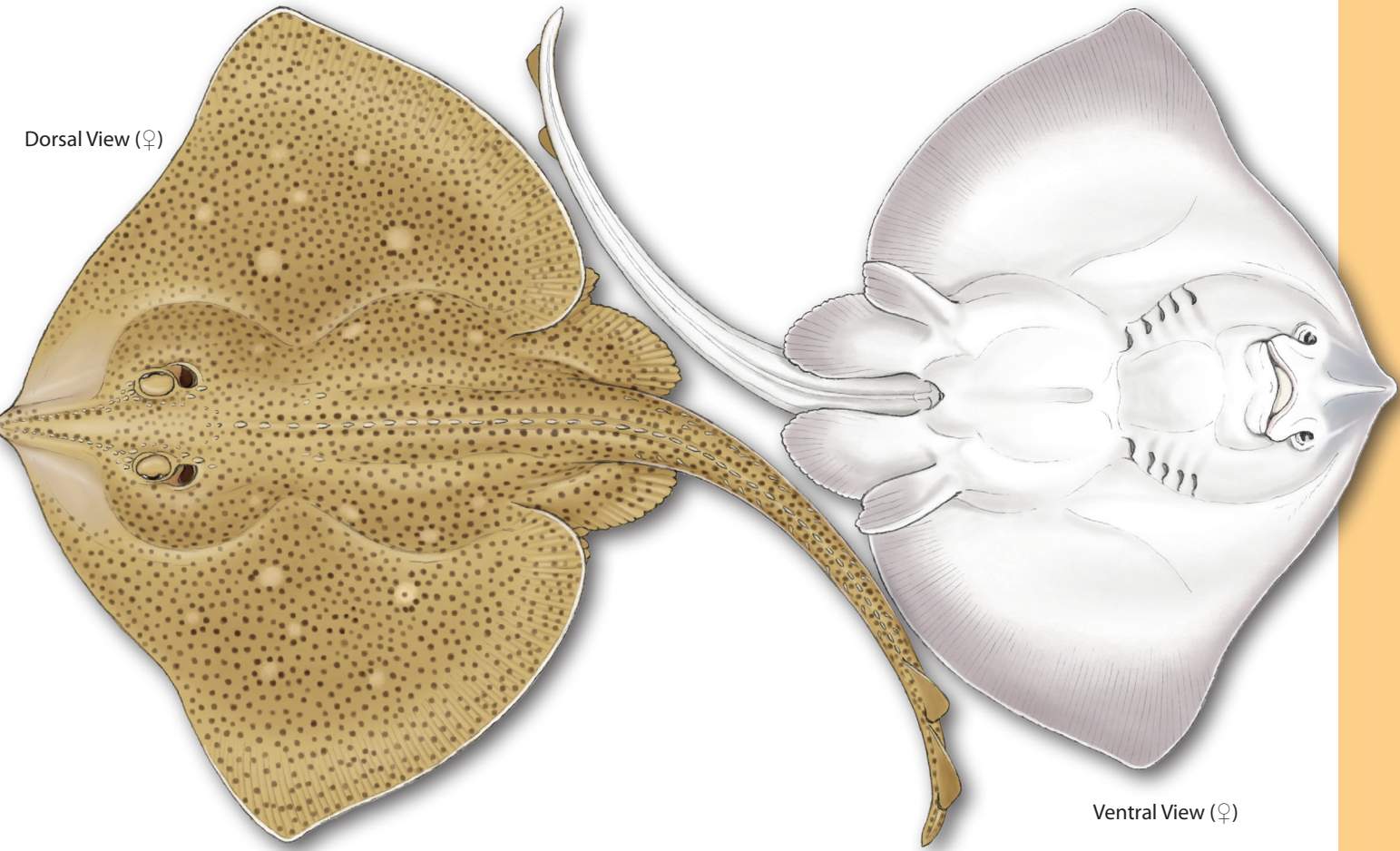


Dorsal View (♀)

Ventral View (♀)



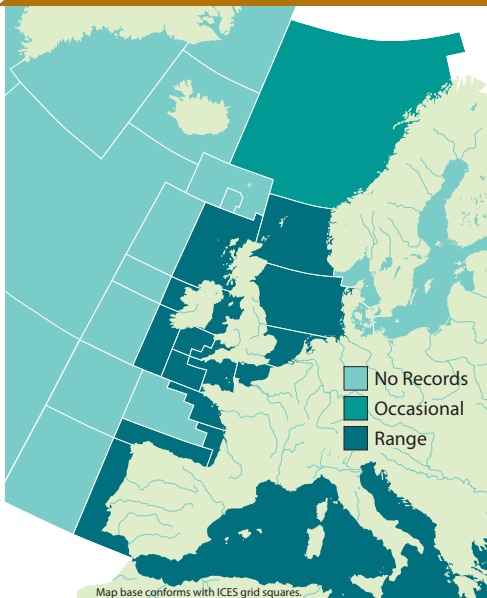
### COMMON NAMES

**Blonde Ray**, Blonde Skate, Raie Lisse (Fr), Raie à Queue Courte (Fr), Razza a Coda Corta (It), Raia Pontuada (Pr), Raya Boca de Rosa (Es), Blonde Rog (Ne).

### SYNONYMS

*Raja asterias* (Günther, 1870), *Raja blanda* (Holt & Calderwood, 1895), *Betaraia blanda* (Leigh-Sharpe, 1924), *Raja oculata* (Fowler, 1936).

### DISTRIBUTION



The Blonde Ray is spread throughout the temperate waters of Europe and the Mediterranean (Luna, S, M; 2009). In the eastern Atlantic they are found from the western Isles of Scotland to Morocco and can be found all along the northern and western Mediterranean. There have been a few doubtful records from the northern Aegean Sea (Ellis *et al.*, 2005).

### APPEARANCE

- Up to 120cm total length.
- Median row of 31–45 thorns.
- Light brown on dorsal surface.
- White on ventral surface.
- Covered in small, dark spots which extend to the **very edge** of the pectoral fins.
- Larger, lighter spots often present.

The disc of the Blonde Ray is quadrangular and brownish in colour (CFB Ireland, 2003). The leading edge of the disc is slightly undulate in females, more so in males (Stehmann and Bürkel, 2000). The back is covered in small, dark spots that extend to the very edge of the wings, distinguishing it from the Spotted Ray, *Raja montagui*, on which the spots stop short of the very margins of the fins. The Blonde Ray commonly has larger, much lighter spots on its back, also absent from the Spotted Ray. The ventral surface is white. The snout is short with an arched mouth containing 60–90 rows of teeth (Clark, 1926).

On mature individuals the entire dorsal surface is prickly and there are spines along the front margins of the disc on the ventral surface. Along the back of juveniles and adult females there is an uninterrupted central row of 31–45 thorns (Bottaro *et al.*, 2007). This row is present on males but is interrupted (Whitehead *et al.*, 1986). Behind the pelvic fins the tail is very slender with lateral folds (Bester, Unknown). Between the dorsal fins, there are 1–2 thorns (Stehmann and Bürkel, 2000).

Both male and female Blonde Rays grow to a maximum total length of approximately 120cm and mature at approximately 80–90cm. It is thought that the Blonde Ray reaches a maximum age of around 15 years (Gallagher *et al.*, 2005).

## SIMILAR SPECIES

*Raja clavata*, Thornback Ray

*Raja microocellata*, Small-eyed Ray

*Raja montagui*, Spotted Ray

*Raja brachyura*,  
Blonde Ray

*Raja clavata*,  
Thornback Ray

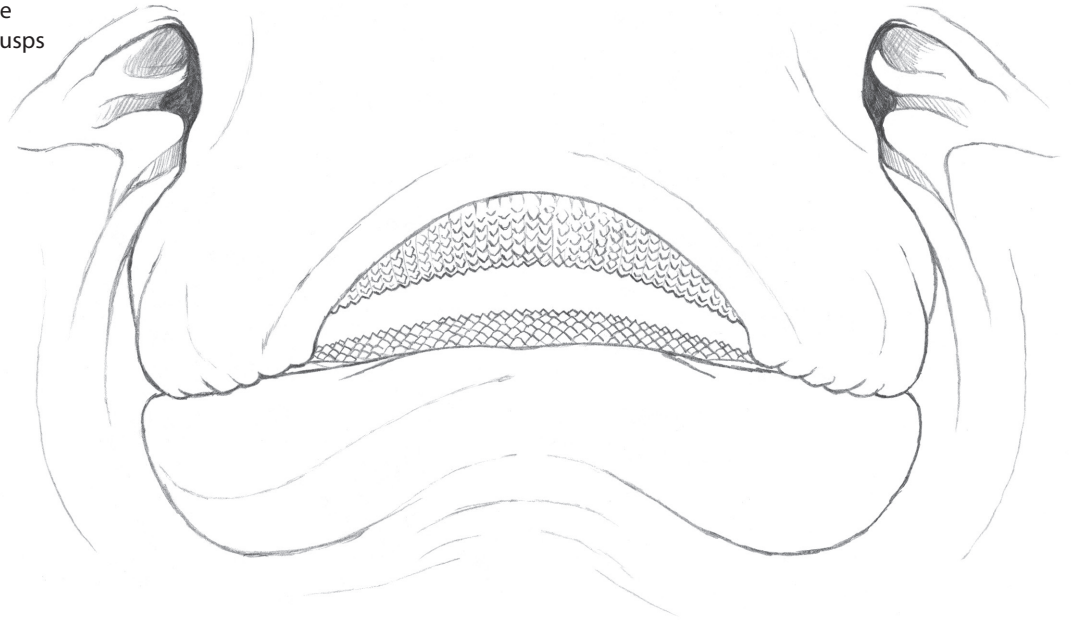
*Raja microocellata*,  
Small-eyed Ray

*Raja montagui*,  
Spotted Ray

(Not to scale)

### TEETH

There are 60–90 rows of teeth in the upper jaw. Both sexes have sharp cusps (Clark, 1926).



### ECOLOGY & BIOLOGY

#### HABITAT

The Blonde Ray is a bottom dwelling species that prefers sandy and muddy areas. It has been recorded down to 900m and can most commonly be found at depths around 350m. As with many elasmobranch species, shallower coastal waters are used as nursery areas leading to a greater number of rays found near shore being juveniles (Farias *et al.*, 2005).

#### DIET

Studies from the Portuguese continental shelf have shown that the majority of the diet of larger Blonde Rays consists of cephalopods, small bony fish, in particular the sandeel, *Gymnammodytes semisquamatus*, and the shrimp *Processa canaliculata*. These are absent from the diet of rays smaller than 45–55cm in length as they cannot tackle such large prey. For these animals the small shrimp *Crangon crangon* was the dominant prey item. Both juvenile and adult rays feed on indiscriminate shrimps, prawns and crustaceans (Farias *et al.*, 2005).

#### REPRODUCTION

The Blonde Ray reaches sexual maturity at 85–92cm in length, which corresponds to ~8–10 years of age (Gallagher *et al.*, 2005; Walker *et al.*, 1998; Shark Trust, 2008). Females lay between 40 and 140 eggs a year between February and August (Shark Trust, 2008; Walker and Hislop, 1998). These eggcases are approximately 90mm long with obvious keels down each side and larger upper horns than lower. They can be mistaken for Thornback Ray, *Raja clavata*, eggcases although these are smaller at around 65mm in length. The incubation period is approximately 7 months (depending on sea temperatures) and the newly hatched skate measure around 20cm in length (Hoff, 2008).

#### EGGCASE

1. ~90mm in length (excluding horns).
  2. Obvious keels.
  3. Upper horns longer than lower horns (Shark Trust, 2008).
- Similar eggcase to the Thornback Ray, *Raja clavata*.



## COMMERCIAL IMPORTANCE

The Blonde Ray is commercially important and is caught and landed across its range (Catchpole *et al.*, 2007). It is sometimes targeted in areas where it is locally abundant but is normally taken as bycatch in mixed demersal fisheries using trawl, gill nets and longlines elsewhere in its range. (Gibson *et al.*, 2006)

## THREATS, CONSERVATION, LEGISLATION

The status of the Blonde Ray in the UK is uncertain. It is potentially vulnerable to exploitation because it matures at a large size and produces relatively few young. As a result, juveniles can be fished before they have had a chance to breed (Gibson *et al.*, 2006). The species is of commercial importance and is targeted across much of its range by long-line fisheries. It is regularly taken as by-catch in trawl fisheries. It is also considered a game fish and is sought by recreational anglers (Catchpole *et al.*, 2007).

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 22 cm 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)

## THREATS, CONSERVATION, LEGISLATION

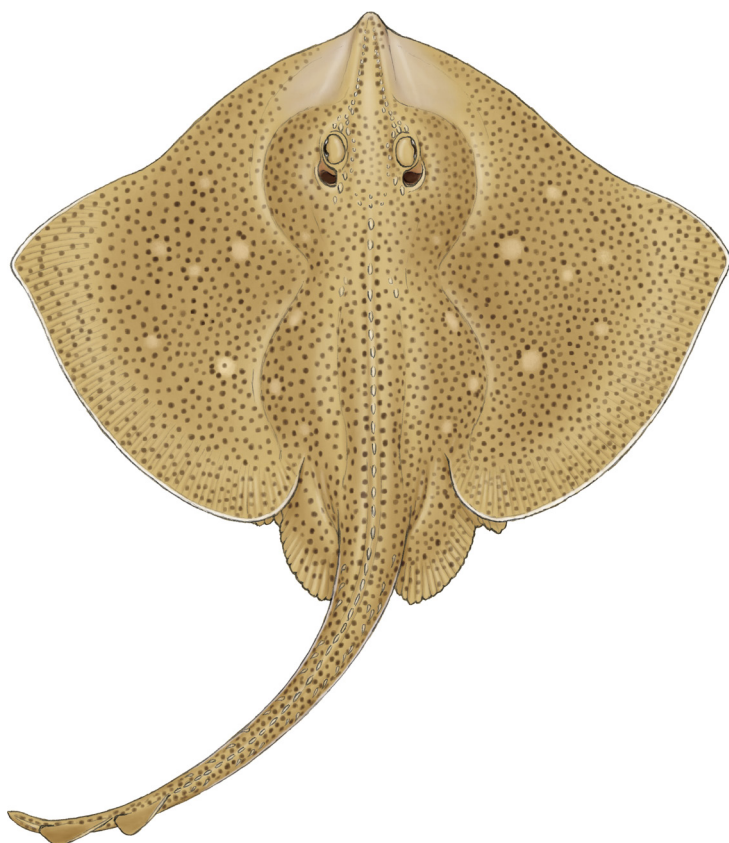
However, such localised management strategies are unlikely to be significant for the conservation of wider populations (Fowler *et al.*, 2005). Many recreational anglers return any sharks, skates and rays they catch alive and some angling clubs have begun tag and release programmes (Holt, 2005). As with most European skate and ray species, there is very little effective management in place to protect the Blonde Ray.

## IUCN RED LIST ASSESSMENT

Near Threatened (2008).

## HANDLING AND THORN ARRANGEMENT

- Handle with care.
- Row of strong midline thorns.
- Parallel thorns sometimes present on lateral back of tail.



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