

RAJIDAE

***Dipturus batis* (Linnaeus, 1758)**

(Plate VIII, 58)

Frequent synonyms / misidentifications:

Raya batis Linnaeus, 1758 / None.

FAO names: En – Skate; Fr – Pocheteau gris; Sp – Noriega.

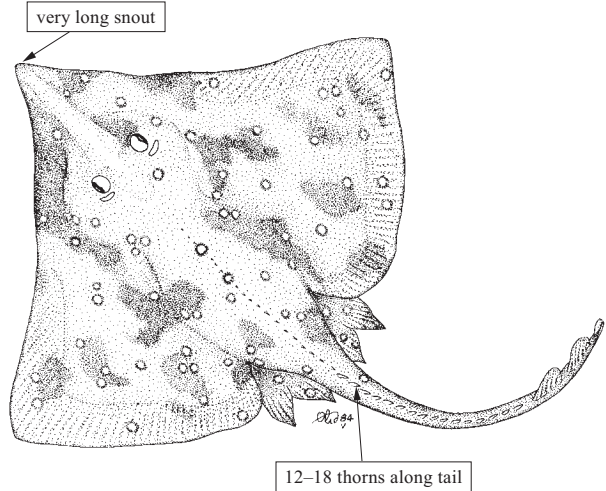
Size: To about 250 cm TL.

Habitat and biology: Benthic on sandy bottom, from coastal waters to 600 m. Oviparous with egg-cases from 150 to 250 mm in length and 80 to 150 mm in width. Females lays egg-cases mainly in spring and summer.

Distribution: Western Mediterranean including Adriatic Sea, absent in the Black Sea and in the Levantine basin. Atlantic from Norway to Madeira and northern Morocco, western Baltic Sea.

Importance to fisheries: Captured by trawlers and longliners mainly in northern Europe.

Conservation and exploitation status: IUCN, Endangered (A1abcd+2bcd); Critically Endangered (A1abcd+2bcd) in shelf and enclosed areas; Mediterranean, threatened species/locally disappeared.



***Dipturus oxyrinchus* (Linnaeus, 1758)**

(Plate VIII, 59)

RAJIDAE

Frequent synonyms / misidentifications:

Raya oxyrinchus Linnaeus, 1758 / None.

FAO names: En – Longnose skate; Fr – Pocheteau noir; Sp – Picón.

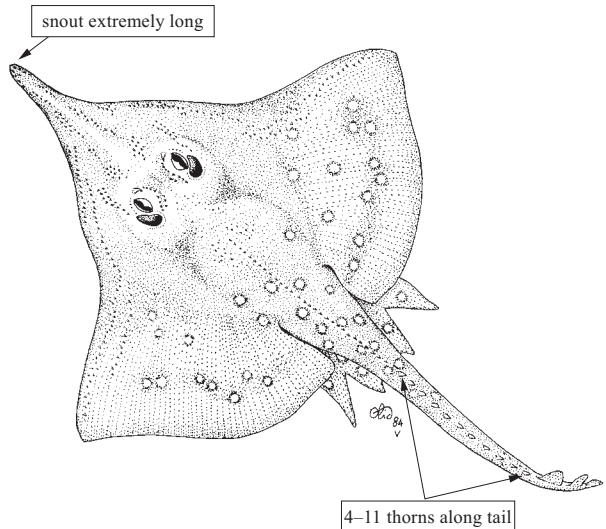
Size: Common from 60 to 100 cm, but maximum total length also 150 cm TL.

Habitat and biology: Benthic on sandy bottom from 90 to 900 m, common around 200 m. Oviparous, egg-cases from 100 to 150 mm in length, laid from February to May.

Distribution: Whole Mediterranean, absent in the Black Sea. Neighbouring Atlantic.

Importance to fisheries: Landed by trawlers and longliners especially in northern Europe.

Conservation and exploitation status: Mediterranean, vulnerable species.



Leucoraja circularis (Couch, 1838)

(Plate VIII, 60)

RAJIDAE

Frequent synonyms / misidentifications:
Raja circularis Couch, 1838 / None.

FAO names: **En** – Sandy ray; **Fr** – Raie circulaire; **Sp** – Raya falsa vela.

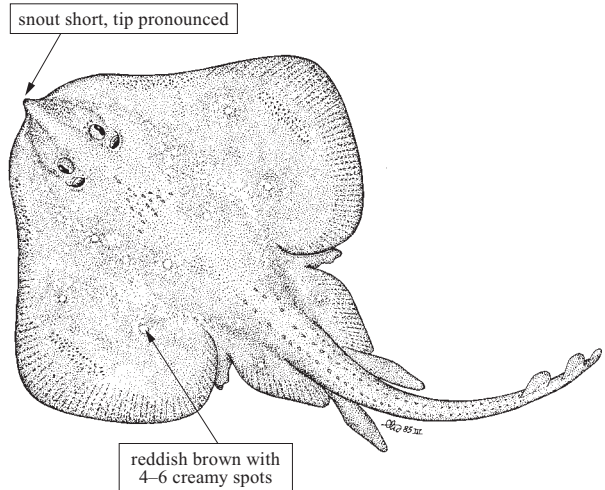
Size: To about 120 cm, usually 70 cm TL.

Habitat and biology: Benthic in offshore shelf waters and on upper slope from 70 to 275 m, common around 100 m. Oviparous, females lay their egg-cases of about 90 by 50 mm size from November to August.

Distribution: Western Mediterranean to Libya, absent in the Black Sea. Atlantic from Scotland and southern Norway possibly to Senegal.

Importance to fisheries: Species of local fishery importance, caught by bottom trawl fisheries.

Conservation and exploitation status: Mediterranean, occasional/rare species.

***Leucoraja fullonica*** (Linnaeus, 1758)

(Plate VIII, 61)

RAJIDAE

Frequent synonyms / misidentifications:
Raja fullonica Linnaeus, 1758 / None.

FAO names: **En** – Shagreen ray; **Fr** – Raie chardon; **Sp** – Raya cardadora.

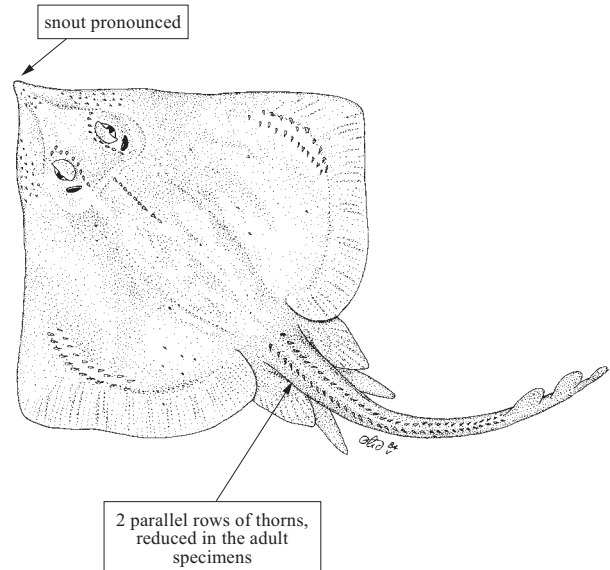
Size: To about 100 cm TL.

Habitat and biology: Benthic in relatively cold coastal waters and on upper parts of continental slopes from 30 to 550 m. Oviparous, size of egg-cases about 80 by 50 mm.

Distribution: Western Mediterranean including Adriatic Sea absent in the Black Sea. Atlantic from Iceland to Madeira and northern Morocco.

Importance to fisheries: Caught by bottom trawl fisheries and landed in northern parts of area by longliners.

Conservation and exploitation status: Mediterranean, occasional/rare species.



***Leucoraja melitensis* (Clark, 1926)**

(Plate VIII, 62)

RAJIDAE

Frequent synonyms / misidentifications: *Raja melitensis* Clark, 1926 / None.

FAO names: En – Maltese ray; Fr – Raie de Malte; Sp – Raya de Malta.

Size: To about 50 cm TL.

Habitat and biology: Benthic in about 60 to 600 m. Oviparous, reproduction activity throughout the year, ripe females observed mainly in spring and autumn; egg-cases unknown.

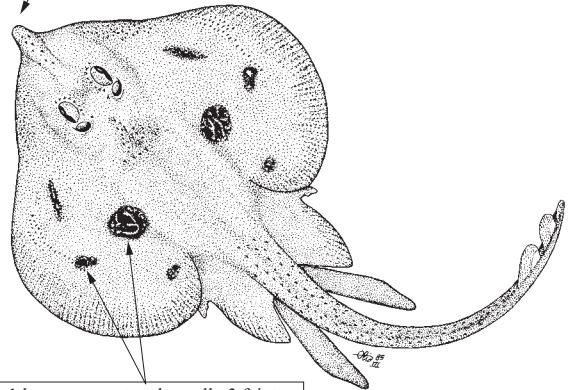
Distribution: Only in the western part of the Mediterranean, Tunisia coasts around Malta (rare in Algeria and Italy).

Importance to fisheries: Bycatch of local trawl fishery.

Conservation and exploitation status: Mediterranean, occasional/rare species, need to be investigated.

Remarks: Endemic species in the Mediterranean. It is probably quite rare around Malta, which is at the northern border of the distribution (Schembri *et al.*, 2003).

snout short, tip pronounced



1 large eye-spot and usually 3 fainter dusky blotches on each pectoral fin

***Leucoraja naevus* (Müller and Henle, 1841)**

(Plate VIII, 63)

RAJIDAE

Frequent synonyms / misidentifications: *Raja naevus* Müller and Henle, 1841 / None.

FAO names: En – Cuckoo ray; Fr – Raie fleurie; Sp – Raya santiguosa.

Size: To about 70 cm TL.

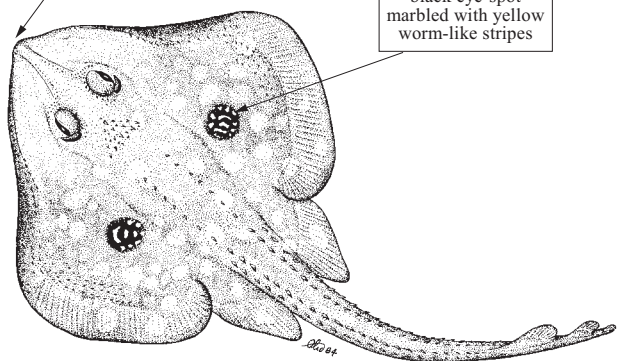
Habitat and biology: Benthic in coastal waters from 20 to 250 m. Oviparous, up to 102 egg-cases per female laid throughout the year mainly in springtime, size from 40 to 60 mm. Embryonic development about eight months until hatching of young at 120 mm. Size of first maturity at 60 cm in females.

Distribution: Western Mediterranean, to Tunisia and western Greece including Adriatic Sea. Atlantic from Ireland and North Sea to northern Morocco, also reported in Senegal.

Importance to fisheries: Bycatch of bottom trawl fisheries.

Conservation and exploitation status: Mediterranean, occasional/rare species.

snout short



black eye-spot marbled with yellow worm-like stripes

***Raja asterias* Delaroche, 1809**

(Plate IX, 64)

RAJIDAE

Frequent synonyms / misidentifications:
None / None.

FAO names: **En** – Starry ray; **Fr** – Raie étoilée;
Sp – Raya estrellada.

Size: To about 80 cm TL.

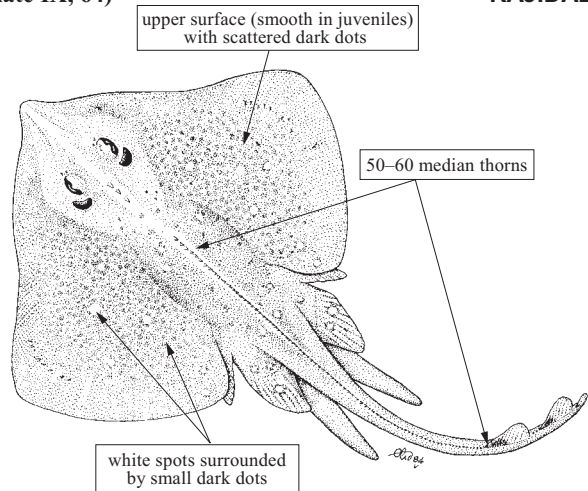
Habitat and biology: Benthic in inshore waters on sandy bottom from 2 to about 200 m, more common between 20 and 50 m. Oviparous with about 30 to 112 egg-cases per year (depending on size of females) from 30 to 45 mm in length. Egg-cases laid mainly in summer and autumn at depth of 30 to 40 m; embryos development in 5 to 6 months. Young specimens of about 80 to 90 mm found in very shallow waters mainly in winter-time. Females mature at about 56 cm, males at 52 cm TL.

Distribution: Mediterranean, less common in the eastern part, absent in the Black Sea. Probably propagated to the near Atlantic region.

Importance to fisheries: Regularly caught as bycatch in the bottom trawl fisheries. As secondary target species is caught by beam trawl. Juvenile specimens are frequently caught by trammel net in very shallow waters (2–15 m) and discarded still alive.

Conservation and exploitation status: Mediterranean, stable biomass species.

Remarks: It can probably be considered an endemic species in the Mediterranean Sea.

***Raja brachyura* Lafont, 1873**

(Plate IX, 65)

RAJIDAE

Frequent synonyms / misidentifications:
None / None.

FAO names: **En** – Blonde ray; **Fr** – Raie lisse; **Sp** – Raya boca de rosa.

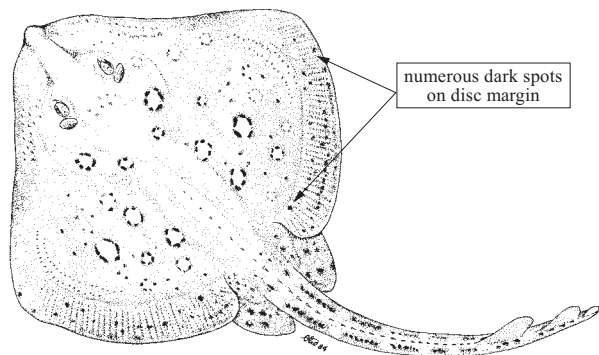
Size: To about 120 cm TL.

Habitat and biology: Benthic in inshore waters mainly on sandy bottoms to about 100 m. Oviparous, about 30 egg-cases per year laid from February to August with 80 to 120 cm length. Development of embryo in about 7 months.

Distribution: Western Mediterranean and one doubtful record from the northern Aegean Sea, presence in the Black Sea not confirmed. Atlantic from Shetlands and North Sea to Madeira and Morocco.

Importance to fisheries: Bycatch in the bottom fishing in coastal grounds; regularly landed in northern Europe.

Conservation and exploitation status: Mediterranean, occasional/rare species.



***Raja clavata* Linnaeus, 1758**

(Plate IX, 66)

RAJIDAE

Frequent synonyms / misidentifications:
None / None.

FAO names: **En** – Thornback ray; **Fr** – Raie bouclée; **Sp** – Raya de clavos.

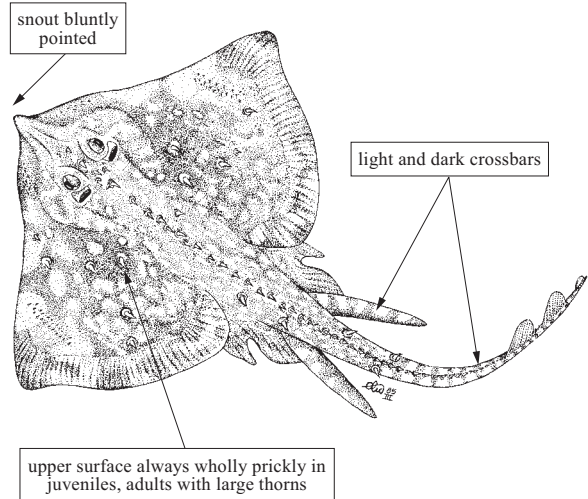
Size: To about 110 cm TL.

Habitat and biology: Benthic from shallow water to the bathyal zone (20–700 m). Oviparous, 140 to 170 egg-cases per year (60–90 mm length) laid mainly in winter and spring, development of embryo in about 5 months, with young hatching at 100 to 110 mm TL. Females mature at 85 cm, males at 75 cm TL.

Distribution: Whole Mediterranean including the Black Sea especially in the western part. Atlantic from Iceland and Norway to Madeira and Morocco, South Africa and southwestern Indian Ocean.

Importance to fisheries: Locally commercially important in the Mediterranean; bycatch of the demersal fishery.

Conservation and exploitation status: IUCN, Lower Risk (near threatened) in the North Sea; Mediterranean, very common, stocks currently not depleted, stable biomass.

***Raja miraletus* Linnaeus, 1758**

(Plate IX, 67)

RAJIDAE

Frequent synonyms / misidentifications:
None / None.

FAO names: **En** – Brown ray; **Fr** – Raie miroir; **Sp** – Raya de espejos.

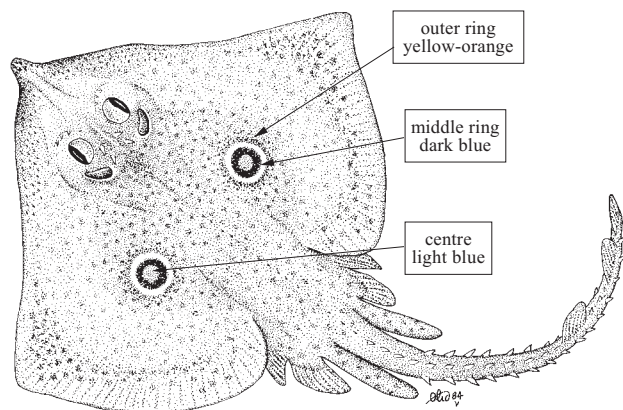
Size: To about 60 cm TL.

Habitat and biology: Benthic from shallow water to 450 m mainly from 50 to 150 m on sandy and hard bottoms. Oviparous, egg-cases laid from spring to summer, 45 to 52 mm length, embryonic development until hatching takes about 5 months with young from 10 to 11 cm TL. Females mature at 24 cm, males at 22 cm disc width.

Distribution: Atlantic coasts from Madeira and Morocco northward to northern Portugal, whole Mediterranean, southward to South Africa and southwestern Indian Ocean.

Importance to fisheries: Commonly caught as bycatch by bottom trawl fisheries.

Conservation and exploitation status: Mediterranean, stable biomass.



***Raja montagui* Fowler, 1910**

(Plate IX, 68)

RAJIDAE

Frequent synonyms / misidentifications:
None / *Raja polystigma* Regan, 1923.

FAO names: En – Spotted ray; Fr – Raie douce; Sp – Raya pintada.

Size: To about 80 cm TL.

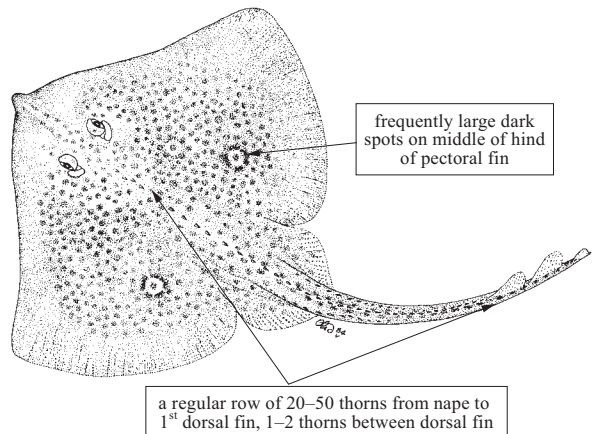
Habitat and biology: Benthic from shallow waters to 650 m, more common at about 100 m on sandy and muddy bottoms. Oviparous, 24 to 60 egg-cases per year (64–77 mm length) laid in summer, embryos developing in 5 to 6 months with young hatching at size of 11 to 12 cm TL. Sexual maturity reached at about 60 cm TL.

Distribution: Western Mediterranean (to Tunisia and western Greece) rare in the eastern Levantine basin, presence in the Black Sea not confirmed. Atlantic from Shetlands and North and Baltic Sea to Morocco.

Importance to fisheries: Bycatch of bottom trawl fisheries.

Conservation and exploitation status: Mediterranean, stable biomass.

Remarks: Probably misidentified with *R. polystigma*, needs to be investigated.

***Raja polystigma* Regan, 1923**

(Plate IX, 69)

RAJIDAE

Frequent synonyms / misidentifications:
None / *Raja montagui* Fowler, 1910.

FAO names: En – Speckled ray; Fr – Raie tachetée; Sp – Raya manchada.

Size: To about 50–60 cm TL.

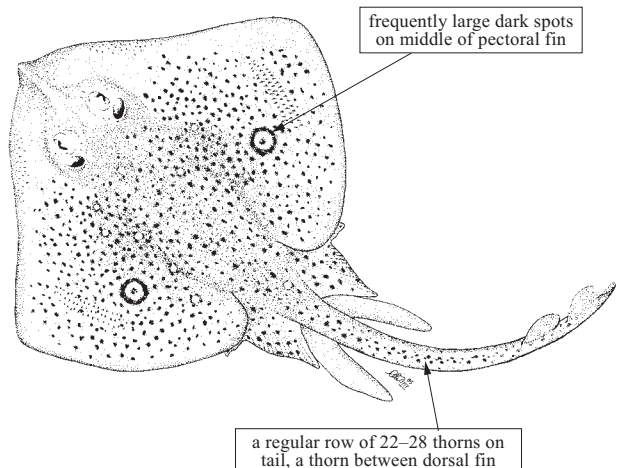
Habitat and biology: Benthic mainly on soft bottoms from 100 to 400 m. Oviparous, 20 to 62 egg-cases about 35 to 46 mm in length. Ripe females occur mostly in autumn. Males and females mature at 53 cm TL.

Distribution: Probably present only in the western Mediterranean (more common on the southern coast).

Importance to fisheries: Bycatch of bottom trawl fisheries.

Conservation and exploitation status: Mediterranean, vulnerable species.

Remarks: Probably misidentified with *R. montagui*, needs to be investigated. Considered as a Mediterranean endemic skate.



Raja radula Delaroche, 1809

(Plate IX, 70)

RAJIDAE

Frequent synonyms / misidentifications:
Raya atra Müller and Henle, 1841 / None.

FAO names: En – Rough ray; Fr – Raie râpe;
 Sp – Raya aspera.

Size: To about 70 cm TL.

Habitat and biology: Benthic from coastal water to 350 m. Oviparous, egg-cases (51–57 mm length) laid throughout the year mainly in spring and summer, embryos developing in about 4 months. Females mature at 34 cm, males at 30 cm of disc width.

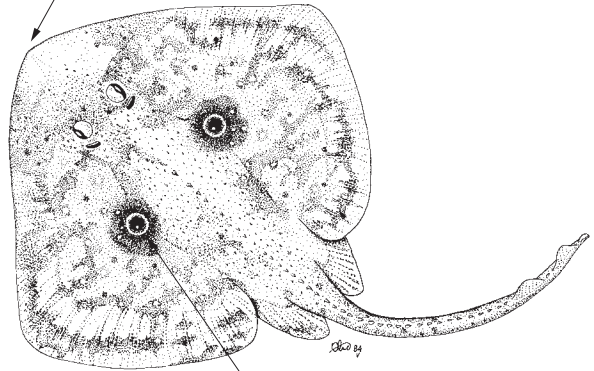
Distribution: Whole Mediterranean mainly in the western part, absent in the Black Sea.

Importance to fisheries: Bycatch in the bottom fisheries in coastal grounds.

Conservation and exploitation status: Mediterranean, occasional/rare species, needs to be investigated.

Remarks: Apparently passing into Atlantic Ocean, where reported from off Portugal and northern coasts of Morocco but such records are not confirmed. Could be considered as endemic in the Mediterranean.

snout short
and obtuse



a large eye-spot with dark centre encircled by a yellowish ring and a dark outer edge with light dots

Raja undulata Lacépède, 1802

(Plate IX, 71)

RAJIDAE

Frequent synonyms / misidentifications:
 None / None.

FAO names: En – Undulate ray; Fr – Raie brunette;
 Sp – Raya mosaica.

Size: To about 120 cm TL.

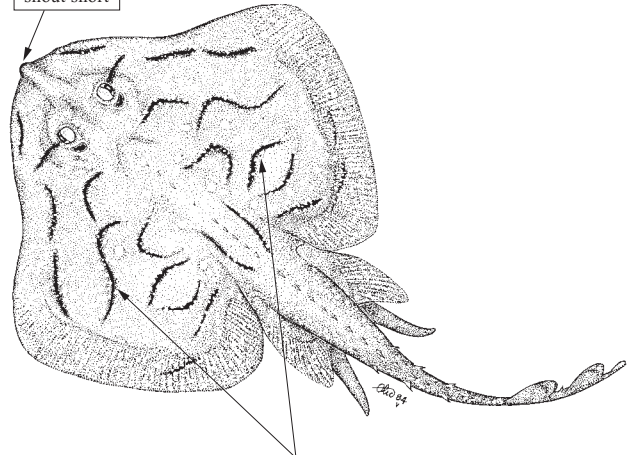
Habitat and biology: Benthic in shallow waters to about 300 m, on soft and sandy bottoms. Oviparous, 30 egg-cases from 50 to 90 mm in length, laid from March to September mainly in spring-time.

Distribution: Western Mediterranean, few records along the coasts of Israel and Turkey. Atlantic from southern Ireland and southwestern England to Mauritania.

Importance to fisheries: Bycatch in the bottom trawl and artisanal fisheries.

Conservation and exploitation status:
 Mediterranean, occasional/rare species.

snout short



several undulating dark bands with white spots

***Rostroraja alba* Lacépède, 1803**

(Plate X, 72)

RAJIDAE**Frequent synonyms / misidentifications:**

Raja alba Lacépède, 1803; *Raja marginata* Lacépède, 1803; *Raja bicolor* Risso, 1826 / *Raja maroccana* Schneider, 1801.

FAO names: **En** – White skate; **Fr** – Raie blanche; **Sp** – Raya bramante.

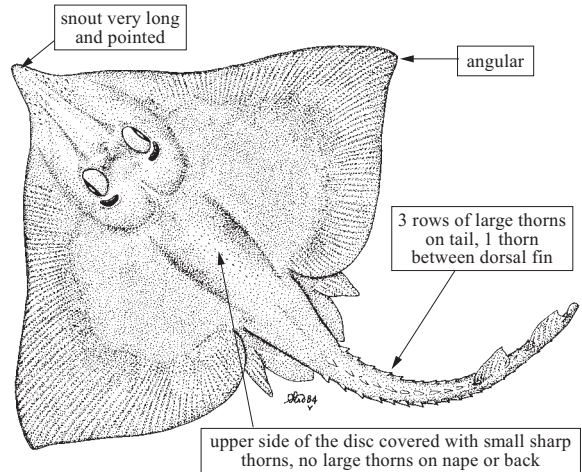
Size: To about 200 cm TL.

Habitat and biology: Benthic from coastal waters to upper slope region from 40 to 500 m, on the sandy and detritic bottoms. Oviparous, 55 to 156 egg-cases per year, about 160 to 200 mm length. Embryos developing in about 15 months (other sources state 4–5 months). Females mature at 130 cm, males at 120 cm TL; mature females observed from April to June.

Distribution: Whole Mediterranean except southeastern Levantine basin and Black Sea. Atlantic from southwestern Ireland to South Africa and southwestern part of the Indian Ocean.

Importance to fisheries: Rarely recorded in the Mediterranean; occasionally caught as bycatch by bottom trawl fisheries.

Conservation and exploitation status: Mediterranean, vulnerable species.

**DASYATIDAE*****Dasyatis centroura* (Mitchill, 1815)**

(Plate X, 73)

Frequent synonyms / misidentifications: *Dasyatis aspera* (Cuvier, 1816) / None.

FAO names: **En** – Roughtail stingray; **Fr** – Pastenague épineuse; **Sp** – Raya látigo lija.

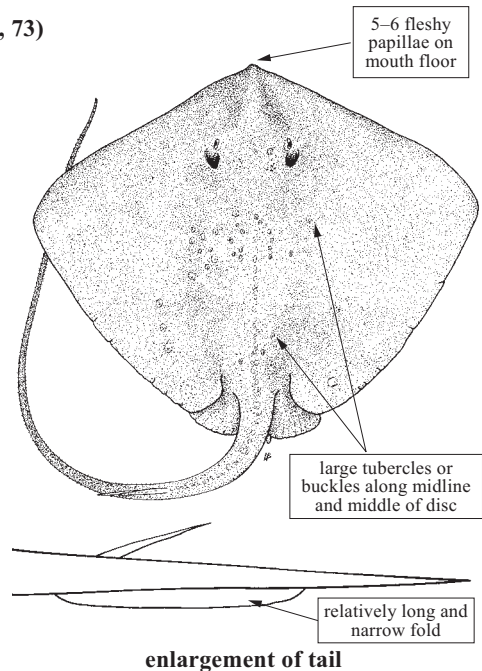
Size: Common between 100 and 130 cm, up to 210 cm disc width, 396 cm of TL.

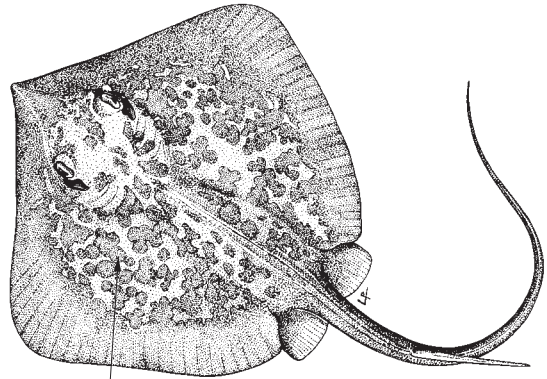
Habitat and biology: Benthic on sandy and muddy bottoms from shallow waters to 200 m. Ovoviviparous, gestation period about 4 months with only 2 to 4 young per year at 34 to 36 cm disc width at birth produced especially in autumn and early winter.

Distribution: Whole Mediterranean, absent in the Black Sea. Eastern Atlantic from southern Bay of Biscay, Madeira and Morocco to the Congo, western Atlantic from George's Bank to Florida and eastern Gulf of Mexico, from Uruguay to southern Brazil.

Importance to fisheries: Incidentally caught by trawl and artisanal (trammel and longlines) fisheries.

Conservation and exploitation status: Mediterranean, threatened species.

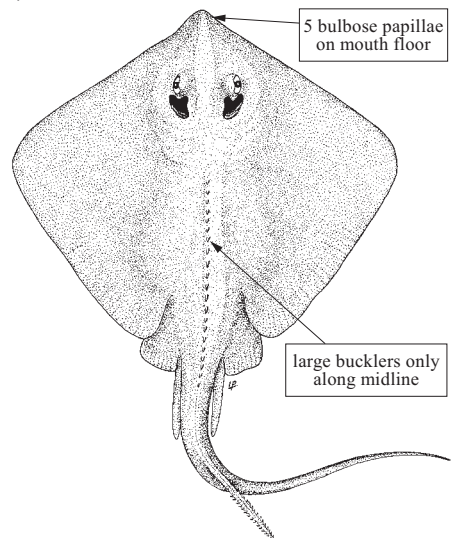


Dasyatis chrysonota marmorata* (Steindachner, 1892)** (Plate X, 74)**DASYATIDAE*Frequent synonyms / misidentifications:***Dasyatis chrysonota* (Smith, 1828) / None.**FAO names:** **En** – Marbled stingray; **Fr** – Pastenague marbrée; **Sp** – Raya látigo jaspeada.**Size:** To 30 cm disc width, 60 cm TL.**Habitat and biology:** Benthic on continental shelf 12 to 65 m on sand and muddy bottoms. Ovoviparous, females mature at 32 cm, males at 30 cm TL. Gestation period 3 months. Four litters per year usually with nine pups.**Distribution:** Recently recorded in the Mediterranean in the south of Tunisia and along the coast of Turkey. Eastern Atlantic from Morocco to South Africa.**Importance to fisheries:** Occasionally caught by bottom trawl fisheries.**Conservation and exploitation status:** Mediterranean, rare/occasional species.**Remarks:** This name is an interim solution (Compagno pers. comm). It may become *D. marmorata* after DNA studies (Last pers. comm.). Séret considers as *D. marmorata* in the “Eastern Central Atlantic Guide” (in preparation).

conspicuous bright blue blotches and branching lines on a golden background

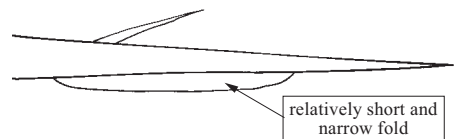
***Dasyatis pastinaca* (Linnaeus, 1758)**

(Plate X, 75)

DASYATIDAE**Frequent synonyms / misidentifications:** *Dasyatis tortonesei* Capapé, 1977; *Trygon pastinaca* Cuvier, 1817 / None.**FAO names:** **En** – Common stingray; **Fr** – Pastenague commune; **Sp** – Raya látigo común.**Size:** To 140 cm disc width, usually 45 cm, up to 250 cm TL.**Habitat and biology:** Benthic over sandy and muddy bottoms from shallow waters to 200 m. Ovoviparous with 4 to 9 young born twice per year and after a gestation period of about 4 months. Females mature at 38 cm, males at 32 cm disc width.**Distribution:** Whole Mediterranean including the Black Sea. Atlantic from Canaries to South Africa and from Madeira and Morocco to the British Isles, southern Norway and to western part of Baltic Sea.**Importance to fisheries:** Occasional bycatch in bottom trawl and gillnet fisheries.**Conservation and exploitation status:** Mediterranean, vulnerable species.**Remarks:** *Dasyatis tortonesei* Capapé, 1977, has been considered synonym of *D. pastinaca* by Tortonese (1987). Formerly considered dubious by Compagno (1999), is often confused with *D. pastinaca*. Probably a distinct *Dasyatis* species lives in the Mediterranean but with nomenclature problem and currently under investigation (Séret pers. comm.). The species *D. tortonesei* is not considered valid in this guide.

5 bulbose papillae on mouth floor

large bucklers only along midline



enlargement of tail

relatively short and narrow fold

***Himantura uarnak* (Forsskål, 1775)**

(Plate X, 76)

DASYATIDAE

Frequent synonyms / misidentifications: *Himantura punctata* (Günther, 1870); *Dasyatis uarnak* Ben Tuvia, 1955 / None.

FAO names: En – Forsskål's stingray; Fr – Pastenague indienne; Sp – Chupare oval.

Size: To 125 cm disc width, maximum total length at least 450 cm.

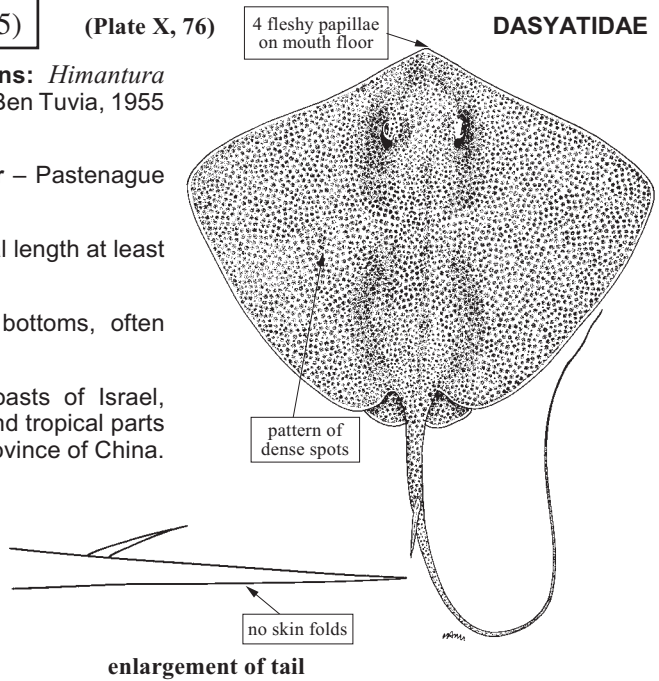
Habitat and biology: Benthic on soft bottoms, often intertidal but to depths up to 200 m.

Distribution: Eastern Mediterranean (coasts of Israel, probably Egypt and Lebanon), Red Sea and tropical parts of Indo-Pacific to Australia and Taiwan Province of China.

Importance to fisheries: Caught by gillnet fisheries some times by bottom trawls.

Conservation and exploitation status: Mediterranean, occasional/rare species.

Remarks: Immigrant Lessepsian species.



***Pteroplatytrygon violacea* (Bonaparte, 1832)**

(Plate X, 77)

DASYATIDAE

Frequent synonyms / misidentifications: *Dasyatis violacea* (Bonaparte, 1832) / None.

FAO names: En – Violet stingray; Fr – Pastenague violette; Sp – Raya látigo violeta.

Size: To 80 cm disc width, at least 190 cm TL.

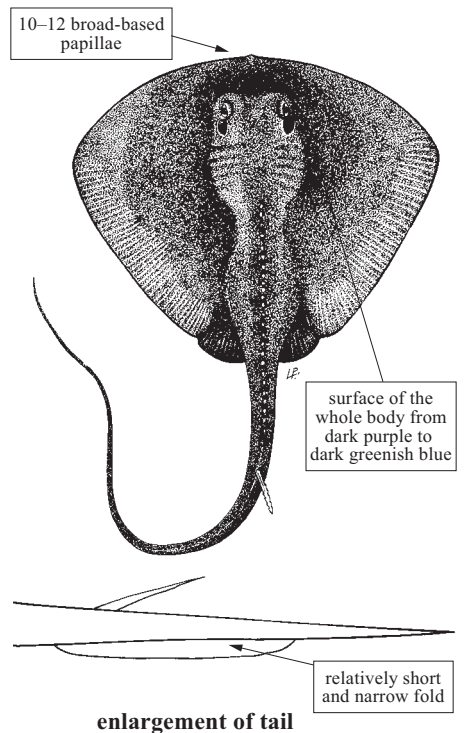
Habitat and biology: Pelagic in tropical to warm temperate waters, usually in the first 100 m, occasionally 240 m. Ovoviviparous; copulation in spring, 5 to 6 young produced in late summer. Feeds on coelenterates, squids, decapod crustaceans and pelagic fishes.

Distribution: Coasts of Mediterranean, absent in the Black Sea. Probably cosmopolitan in tropical and subtropical areas.

Importance to fisheries: Caught by drift nets and by drifting lines of hooks targeting tuna and swordfish. Discarded at sea because of their low or no commercial value.

Conservation and exploitation status: Mediterranean, vulnerable species.

Remarks: *Dasyatis violacea* (Bonaparte, 1832) has to be assigned to a different genus, *Pteroplatytrygon* Fowler, 1910. In this guide we consider *P. violacea*.



***Taeniura grabata* (Geoffroy St-Hilaire, 1817)**

Frequent synonyms / misidentifications: *Trygon grabatus* Geoffroy St-Hilaire, 1817 / None.

FAO names: **En** – Round stingray; **Fr** – Pastenague africaine; **Sp** – Chupare redondo.

Size: To 100 cm disc width, 150 cm TL.

Habitat and biology: Benthic on soft bottoms from shallow water to 100 m. Ovoviviparous.

Distribution: Mediterranean coasts from Tunisia to Turkey and northern Tyrrhenian Sea. Atlantic, temperate and tropical areas, from Cape Verde Islands to Senegal and Angola.

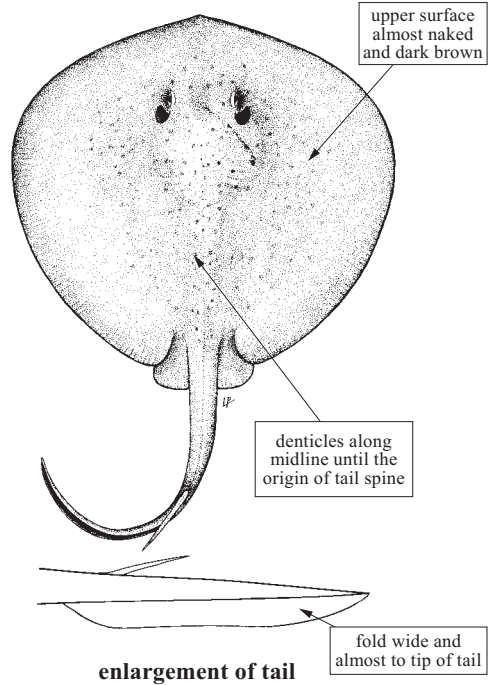
Importance to fisheries: Rarely caught by trammel nets sometime as incidental catches.

Conservation and exploitation status: Mediterranean, occasional/rare species.

Remarks: Immigrant species; Atlantic thermophilic species. Various authors wrongly considered this species in the Red Sea, where it does not exist, being only Atlantic-Mediterranean species.

(Plate X, 78)

DASYATIDAE



GYMNURIDAE

***Gymnura altavela* (Linnaeus, 1758)**

(Plate X, 79)

Frequent synonyms / misidentifications: *Pteroplatea altavela* Müller and Henle, 1841 / None.

FAO names: **En** – Spiny butterfly ray; **Fr** – Raie-papillon épineuse; **Sp** – Raya mariposa espinuda.

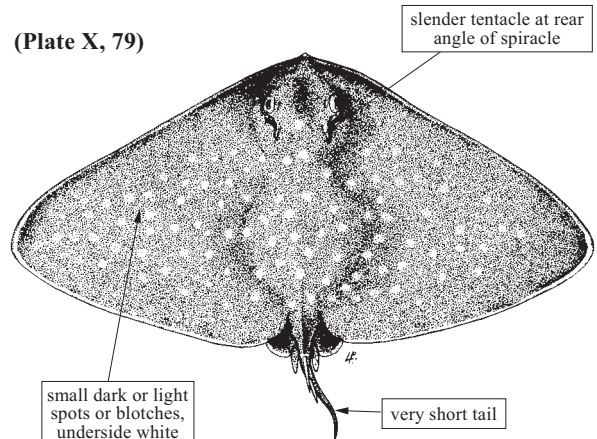
Size: To 400 cm disc width, 285 cm TL, common between 100 and 200 cm TL.

Habitat and biology: Benthic on sandy and muddy bottoms from shallow waters to 60 m. Ovoviviparous with 4 to 7 embryos per year, gestation period of about 6 months.

Distribution: Whole Mediterranean including the Black Sea. Eastern Atlantic from northern Portugal to Angola, western Atlantic from Massachusetts to the Rio de La Plata.

Importance to fisheries: Rarely caught by bottom trawl fisheries.

Conservation and exploitation status: Mediterranean, threatened species.



MYLIOBATIDAE

***Myliobatis aquila* (Linnaeus, 1758)** (Plate XI, 80)

Frequent synonyms / misidentifications: *Holorhinus aquila* Fowler, 1941 / None.

FAO names: En – Common eagle ray; Fr – Aigle commun; Sp – Aguila marina.

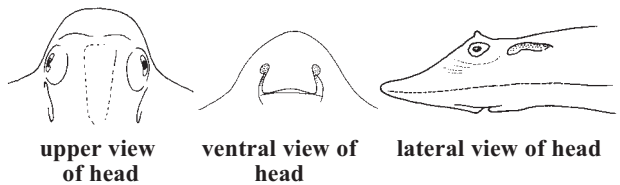
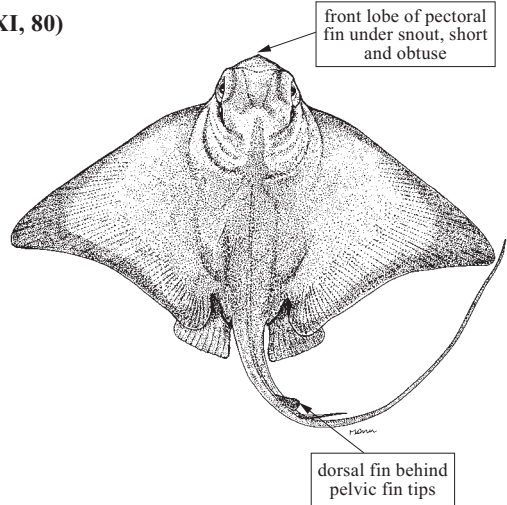
Size: To 83 cm disc width, maximum total length 260 cm.

Habitat and biology: Semipelagic in tropical to warm temperate coastal waters, occasionally oceanic, from shallow waters to 200 m. Ovoviviparous with 3 to 7 young, gestation period 6 to 8 months. Females mature at 60 cm, males at 40 cm disc width.

Distribution: Whole Mediterranean, absent in the Black Sea. Atlantic from Ireland and southwestern North Sea to Madeira Morocco and the Azores; South Africa.

Importance to fisheries: Caught by pelagic and bottom trawl and gillnet fisheries. In the northern Adriatic Sea gillnets have traditionally been utilized to catch this species.

Conservation and exploitation status: Mediterranean, vulnerable species.



***Pteromylaeus bovinus* (Geoffroy St-Hilaire, 1817)** (Plate XI, 81) **MYLIOBATIDAE**

Frequent synonyms / misidentifications: *Myliobatis bovina* Geoffroy St-Hilaire, 1817 / None.

FAO names: En – Bull ray; Fr – Aigle vachette; Sp – Chucho vaca.

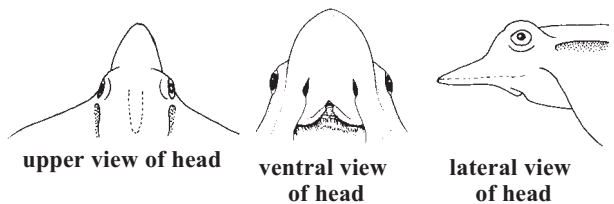
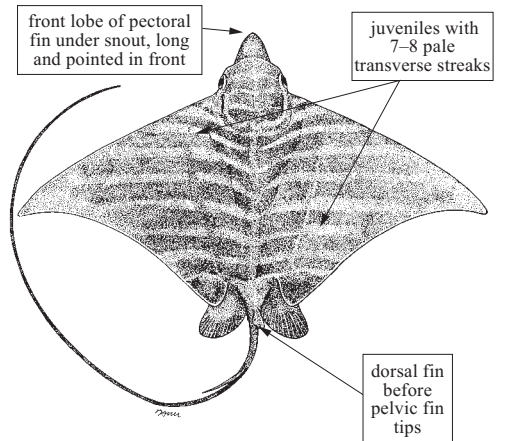
Size: To 250 cm disc width, common between 60 and 100 cm disc width.

Habitat and biology: Semipelagic in tropical to warm temperate coastal waters, occasionally oceanic up to 100 m. Ovoviviparous with 4 to 6 young having about 45 cm disc width at birth, gestation period about 6 months.

Distribution: Whole Mediterranean, absent in the Black Sea. Atlantic from Portugal Madeira and Morocco to South Africa, absent in the Azores.

Importance to fisheries: In the northern Adriatic Sea gillnets have traditionally been utilized for the catch of this species. Rarely juvenile specimens are caught as bycatch by trawl fisheries. Adult bull rays are caught by divers.

Conservation and exploitation status: Mediterranean, threatened species. Locally disappeared overfishing in the past.



RHINOPTERIDAE

Rhinoptera marginata (Geoffroy St-Hilaire, 1817)

Frequent synonyms / misidentifications: *Myliobatis marginata* Geoffroy St-Hilaire, 1817 / None.

FAO names: **En** – Lusitanian cownose ray; **Fr** – Mourine échancrée; **Sp** – Gavilán lusitánico.

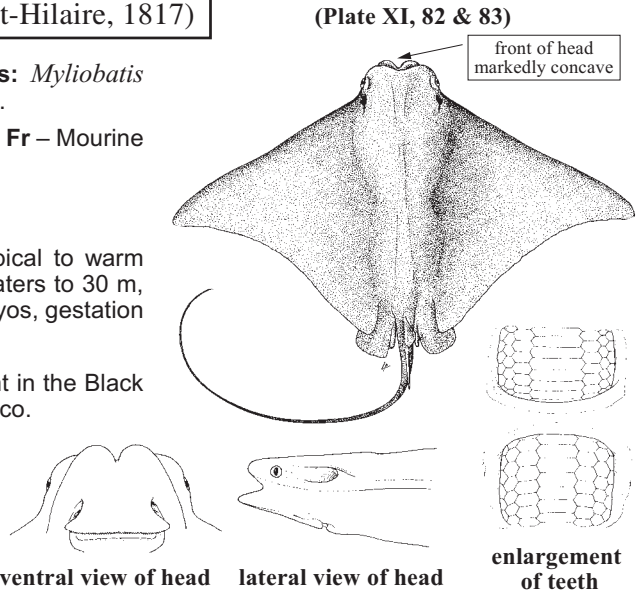
Size: To 200 cm disc width.

Habitat and biology: Semipelagic in tropical to warm temperate on muddy bottoms of coastal waters to 30 m, gregarious. Ovoviviparous with 2 to 6 embryos, gestation period up to 1 year.

Distribution: Whole Mediterranean, absent in the Black Sea. Atlantic from southern Spain to Morocco.

Importance to fisheries: Caught as bycatch by pelagic and bottom trawl fisheries, also with gillnets.

Conservation and exploitation status: Mediterranean, occasional/rare species.



MOBULIDAE

Mobula mobular (Bonnaterre, 1788)

(Plate XI, 84 & 85)

Frequent synonyms / misidentifications: *Cephaloptera giorna* (Lacépède, 1803) / *Mobula japonica* (Müller and Henle, 1841).

FAO names: **En** – Devil ray; **Fr** – Mante; **Sp** – Manta.

Size: To 520 cm disc width, 650 cm of TL, common 300 cm disc width.

Habitat and biology: Semipelagic to pelagic in tropical and warm temperate seas over continental shelves. Gregarious apparently make long migrations, usually swimming close to the surface. Ovoviviparous, usually with 1 or more, rarely 2 young on the back reaching up to 180 cm of disc width at birth. Probably gestation period of 25 months and parturition in summer. Feeding on small pelagic fishes and crustaceans filtered out by gill plates.

Distribution: Whole Mediterranean, absent in the Black Sea. Eastern Atlantic probably from English Channel to Senegal, Azores and Canary Islands and western Atlantic.

Importance to fisheries: Occasional bycatch of purse seine and artisanal fisheries.

Conservation and exploitation status: IUCN, Vulnerable (A1cd); Mediterranean, occasional/rare species. Appendix 2 of Berna Convention; Appendix 2 of Barcelona Convention. Vulnerable to fisheries and declining habitat quality; rarely observed at the present, Mediterranean population strongly declined.

Remarks: Probably an endemic species in the Mediterranean, its presence in the Atlantic needs confirmation as it may be misidentified with *M. japonica* (Notarbartolo di Sciarra, 1987).

