



Dorsal View (♂)

Ventral View (♂)

COMMON NAMES

Atlantic Torpedo Ray, Atlantic Electric Ray, Black Torpedo, Crampfish, Numbfish, Dark Electric Ray, Great Torpedo, Torpille Noire (Fr), Torpedine Nera (It), Tremolina Negra (Es), Sidderrog (Ne).

SYNONYMS

Torpedo walshii (Thompson, 1840), *Torpedo hebetans* (Lowe, 1841), *Torpedo emarginata* (McCoy, 1841), *Torpedo occidentalis* (Storer, 1843), *Torpedo nigra* (Guichenot, 1850), *Tetronarce occidentalis* (Gill, 1862), *Torpedo hebetans* (Günther, 1870), *Narcacion nobiliana* (Garman, 1913), *Tetronarce nobiliana* (De Buen, 1935).

DISTRIBUTION



The Atlantic Torpedo Ray is found along Atlantic coasts from Scotland to South Africa in the east and from Brazil to Nova Scotia in the west. Also found across the Mediterranean and in the western Baltic, but is absent from the Black Sea (Bester, Unknown).

APPEARANCE

- Rounded body with almost straight leading edge of disc.
- Short, thick tail with large caudal fin.
- Two close-set dorsal fins.
- Smooth with no thorns, spines or papillae.
- Dark grey to brown colouration on dorsal surface.
- Ventral surface creamy white with darker margins.

The Atlantic Torpedo Ray is a distinctive ray similar only to the Marbled Torpedo Ray, *Torpedo marmorata*, in UK waters. The two species can normally be distinguished by colouration and size however. Failing this, the spiracles of the two species are markedly different. On the Marbled Torpedo Ray, *Torpedo marmorata*, there are 6-8 obvious papillae on the inside edge of the spiracle. These are lacking on the Atlantic Torpedo Ray, *Torpedo nobiliana*. It is a large ray that can reach 180cm in length and weigh 90kg, although lengths of 60-150cm are more common (Bester, Unknown).

It has a thick, rounded body with an almost straight leading edge and no protruding snout. The eyes and spiracles are set far apart on the head and have no associated orbital thorns or papillae. The tail is thick with a large caudal fin and two dorsal fins, the first distinctly larger than the second. Its skin is soft and smooth (Bester, Unknown).

The colouration of the dorsal surface varies from grey blue to dark brown with no patterning. The ventral surface of the disc is creamy white with a dark margin (Barnes, 2008).

SIMILAR SPECIES

Torpedo marmorata, Marbled Torpedo Ray

Torpedo sinuspersici, Gulf Torpedo Ray

Torpedo torpedo, Common Torpedo Ray

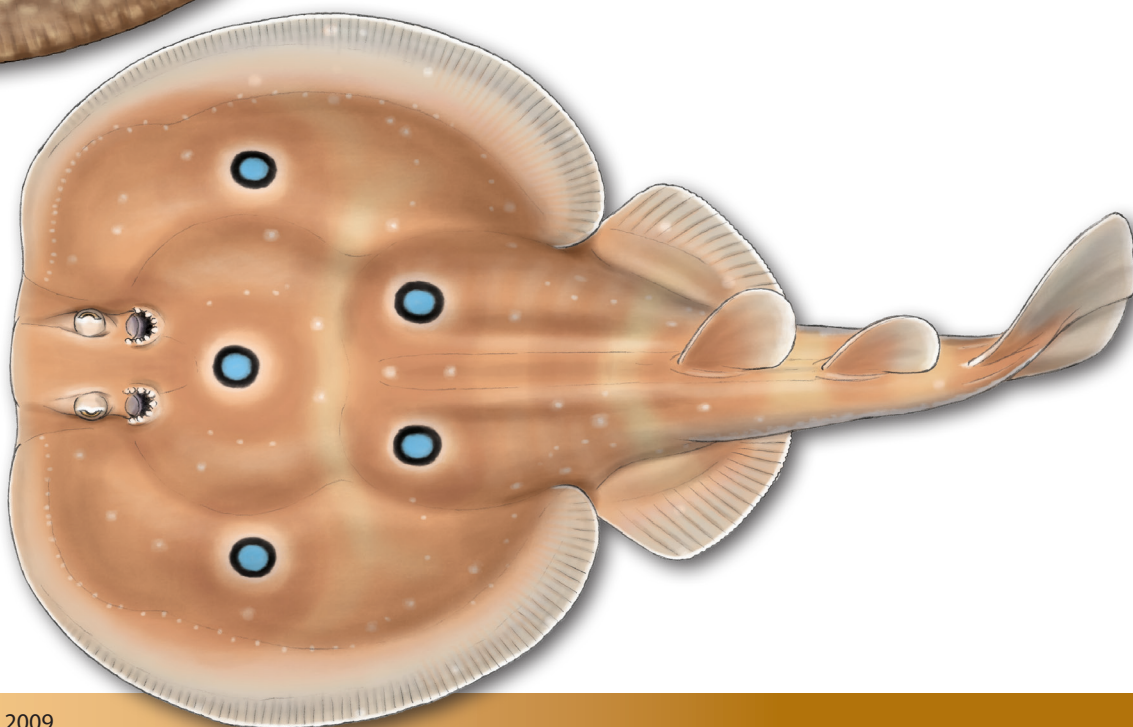
Torpedo nobiliana,
Atlantic Torpedo Ray



Torpedo marmorata,
Marbled Torpedo Ray



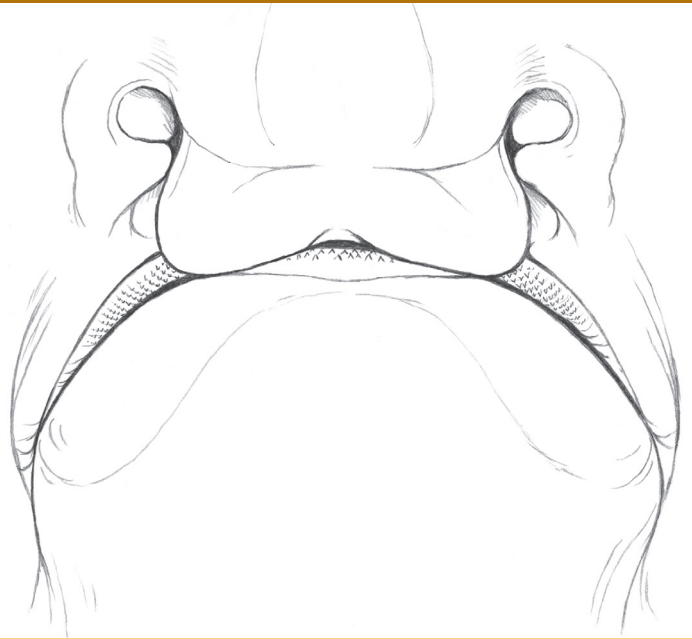
Torpedo torpedo,
Common Torpedo Ray



(Not to scale)

TEETH

The teeth are small, curved and single-cusped, arranged in bands or rows. Approximately 7 of these rows are exposed (Bester, Unknown).



ECOLOGY & BIOLOGY

HABITAT

Juveniles are bottom dwelling, found over soft substrates such as sand and mud from 10 to 150m (32–490ft) (Whitehead *et al.*, 1986). They are often buried during the day and hunt at night (Barnes, 2008). Adults are semi-pelagic living in the water column from 2–800m (7–2,625ft) (Bester, Unknown).

DIET

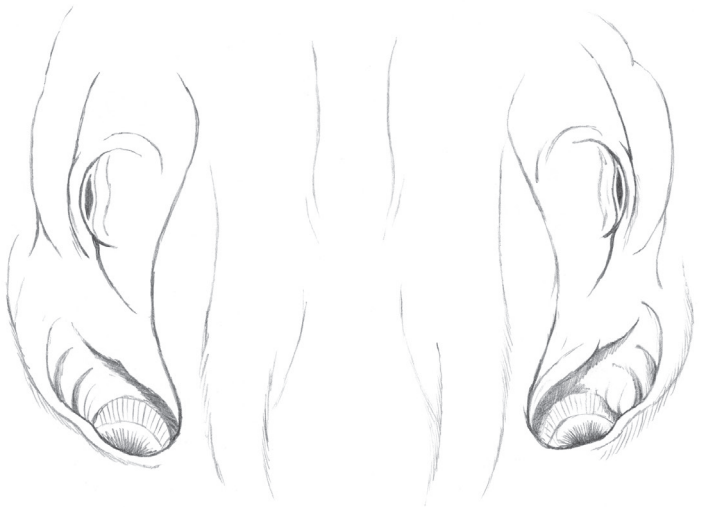
The Atlantic Torpedo Ray feeds predominantly on fish. As it can extend its jaws, it can feed on surprisingly large prey such as small sharks, flounder, mullet and mackerel (Bester, Unknown). It is an ambush predator, 'jumping' on intended prey whilst emitting a series of electrical shocks to stun it (Belbenoit, 1986). These shocks are generated by highly specialised electrogenic organs which are composed of stacks of striated muscle. When contracted, these produce an electrical current up to 220 volts and 600 Hz (Barnes, 2008).

REPRODUCTION

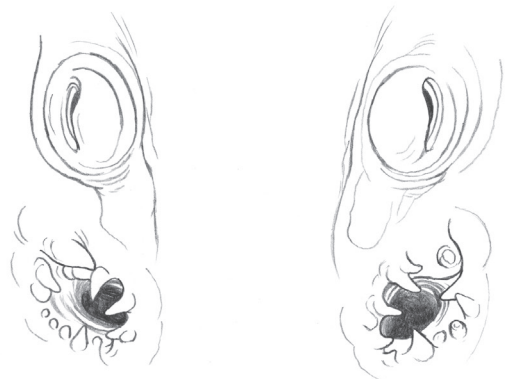
Like other Torpediniformes, the Atlantic Torpedo Ray is ovoviviparous. Ovoviviparity, or leicithotrophic viviparity, is means of reproduction whereby the embryos develop entirely within the mother. They are encased in a thin membrane which is retained in the uterus (Martin, Unknown). The means of nourishment varies considerably amongst elasmobranchs. In Torpediniformes, the embryo feeds initially on an external yolk sac. When this is depleted, they receive additional nourishment from the mother through the indirect absorption of 'uterine milk', a fat and protein rich histotroph (Bester, Unknown).

Little is known of the reproduction of the Atlantic Torpedo Ray. It is thought that the gestation period is approximately a year and each female gives birth to around 60 young. At birth, these measure around 20cm in length and can already use their electric organs for hunting and defence (Bester, Unknown).

SPIRACLES



Torpedo nobiliana, Atlantic Torpedo Ray



Torpedo marmorata, Marbled Torpedo Ray

COMMERCIAL IMPORTANCE

The Atlantic Torpedo Ray was once sought for its liver oil, considered of high quality for illumination purposes. It is currently of no commercial importance (Bester, Unknown).

THREATS, CONSERVATION, LEGISLATION

Very little data is available on population or catch trends for the Atlantic Torpedo Ray. When taken as bycatch in trawl and line fisheries, it is usually discarded at sea. It is possible that destructive bottom trawling is damaging nursery areas and it appears to be rare in the Mediterranean Sea (Gibson *et al.*, 2006).

IUCN RED LIST ASSESSMENT

Data Deficient (2008).

HANDLING AND THORN ARRANGEMENT

- Handle with care.
- Can produce an electrical current of 170-220v.



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