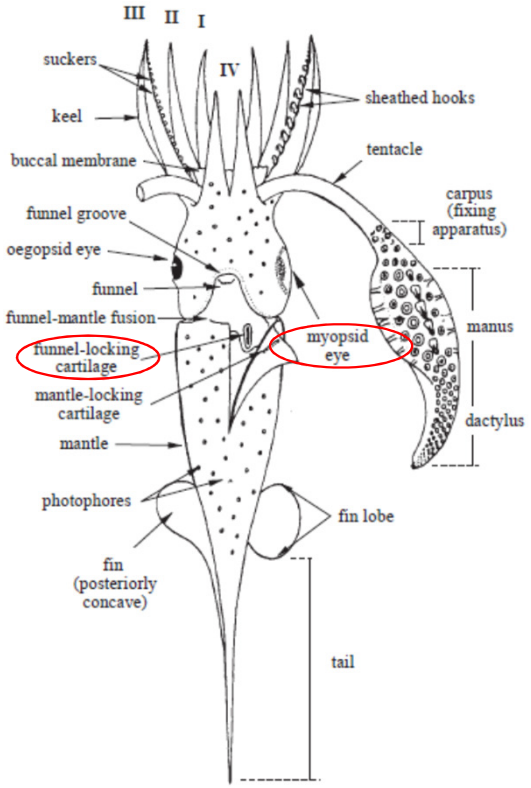
Identification guide for shelf cephalopods in the UK waters (North Sea, the English Channel, Celtic and Irish Seas

Compiled by V.Laptikhovsky

Squids – Myopsida: Loliginidae

Simple stick-like funnel-locking cartilage:

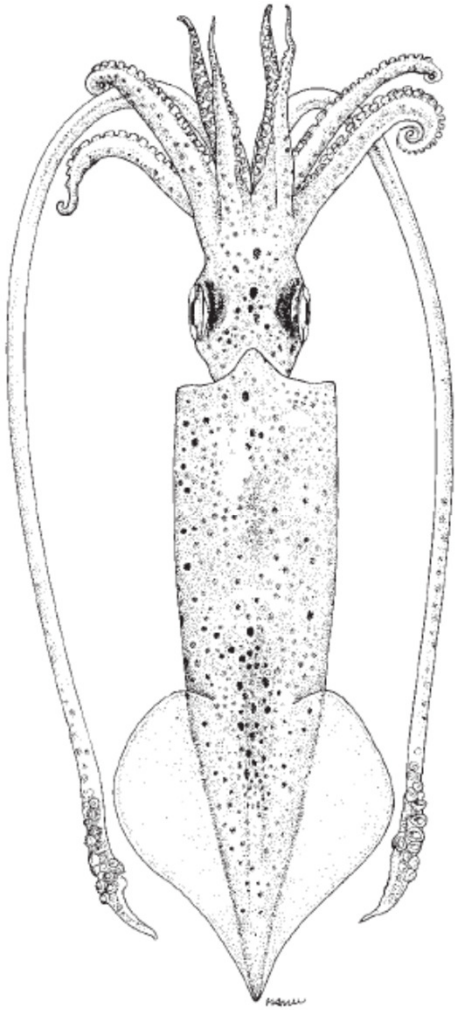


Myopsid eye:

Corneal membrane covers the entire eye, no hole in front of pupil

Alloteuthis (fins <50% mantle length)

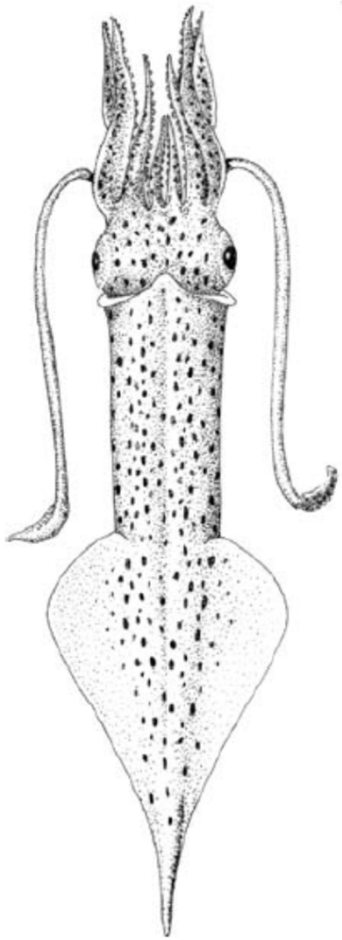
likeley both squids are the same species: no genetic difference between them in the North Sea



A.media

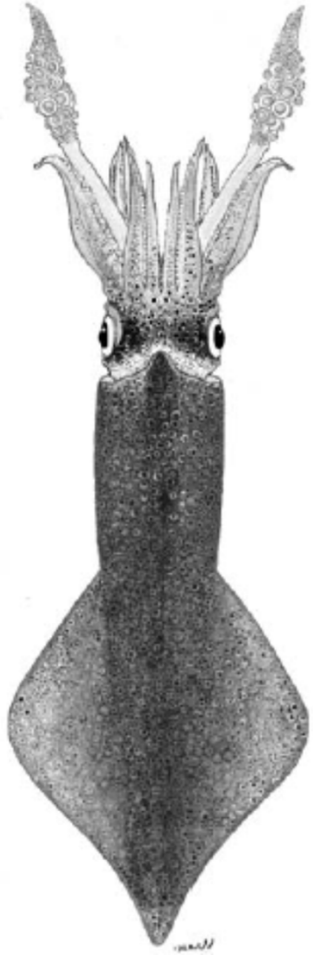
Tentacles long, robust; **clubs large, expanded, median manal suckers large (9 to 14% of head width)**. Left ventral arm hectocotylized: 10 to 12 (usually 11) normal suckers in ventral row, followed distally by papillae.

suckers; tentacles short, delicate; **clubs small, narrow, median manal suckers small (6 to 8% of head width)**. Arms are medium to short; left ventral arm hectocotylized, with 6 to 8 pairs of normal suckers proximally, followed distally by 2 longitudinal series of fine papillae.



A.subulata

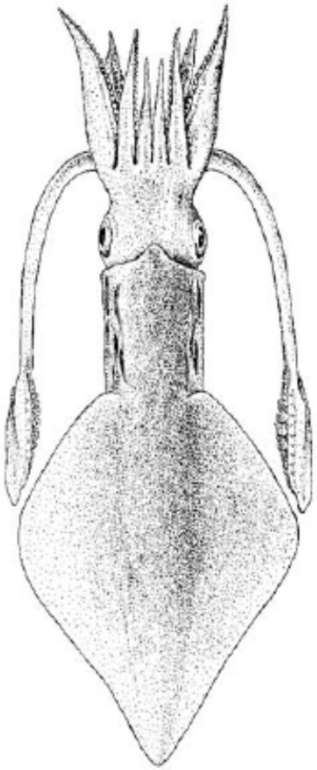
Loligo (fins >50% of mantle length)



Fin 1/2-2/3 ML (50-70%)

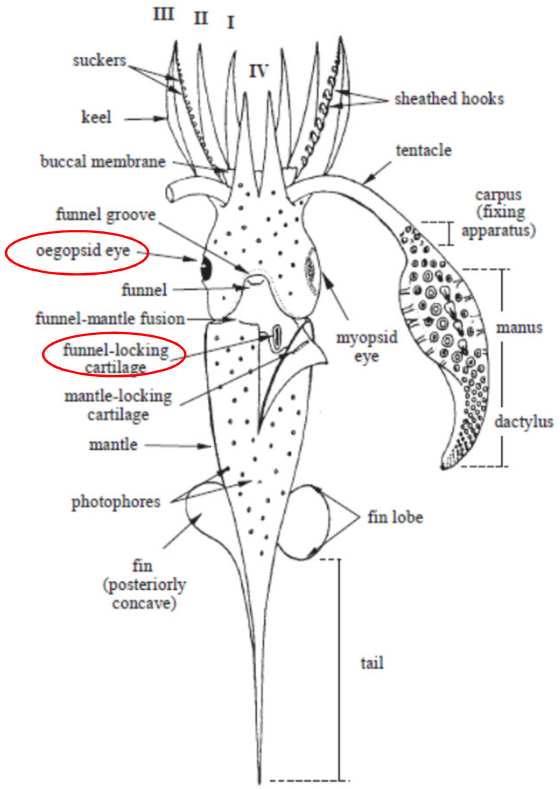
L.Vulgaris Common squid

Fin ~3/4 ML (>70%)

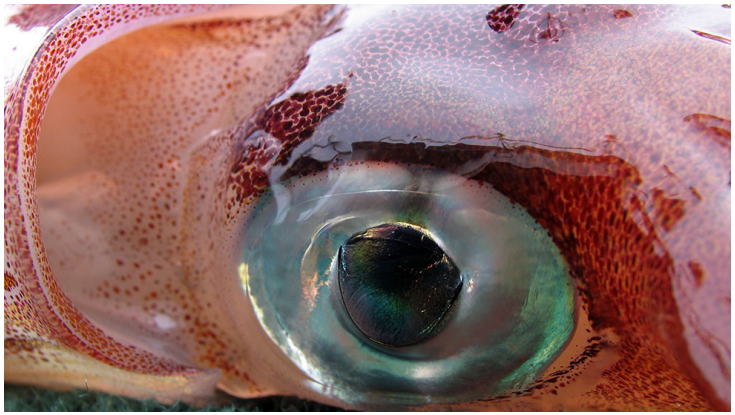


L.Forbesi Northern squid

Squid – Oegopsida:Ommastrephidae

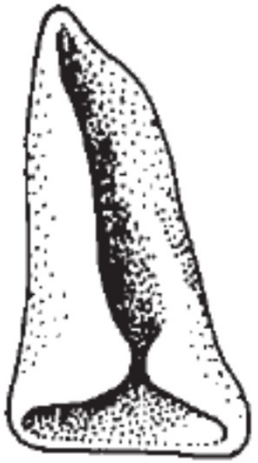


Oegopsid eye



There is a big round hole in the centre of cornea in front of pupil

T-shaped funnel-locking cartilage:

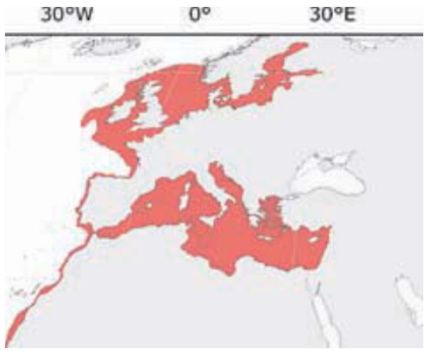


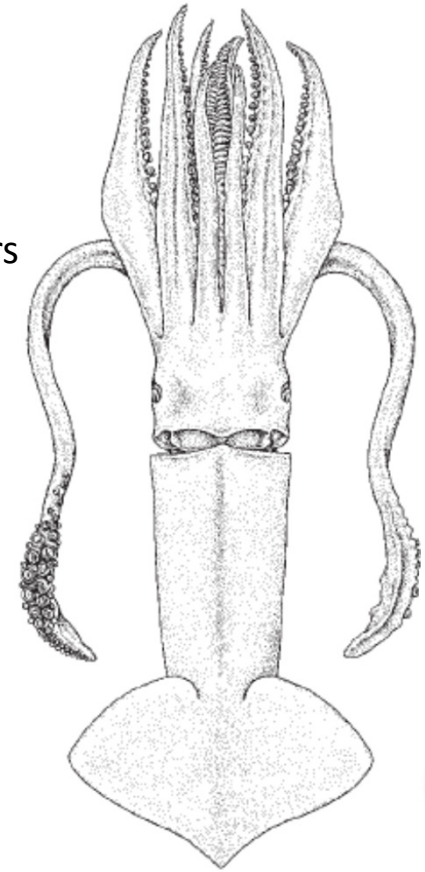
Todaropsis eblanae

Lesser flying squid

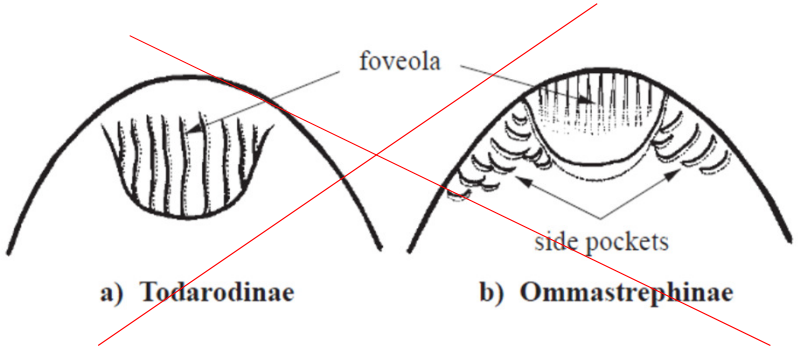
A short bulky body

Most of the tentacle length is WITHOUT suckers





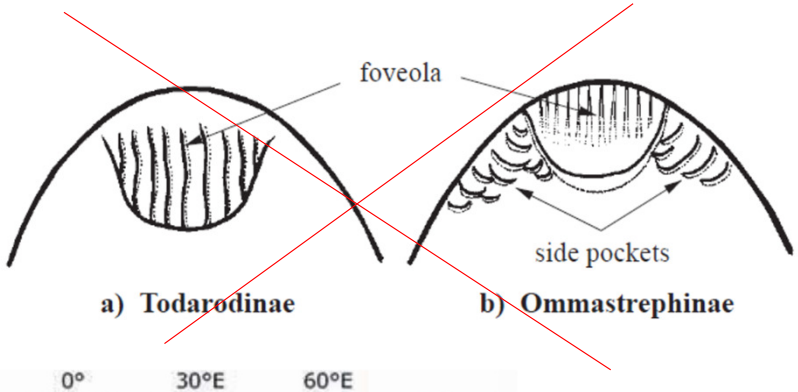
The **funnel groove is smooth, without foveola or sidepockets**.

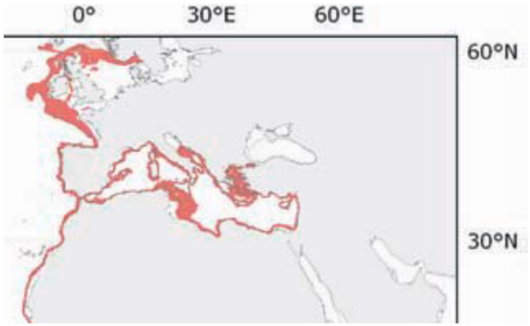


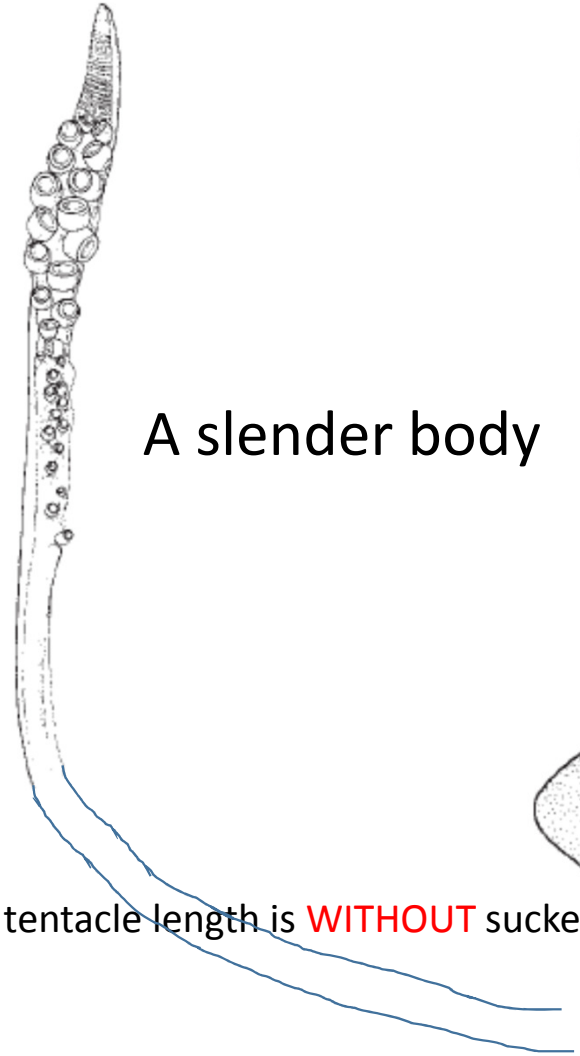
Illex coindeti

Short-fin squid

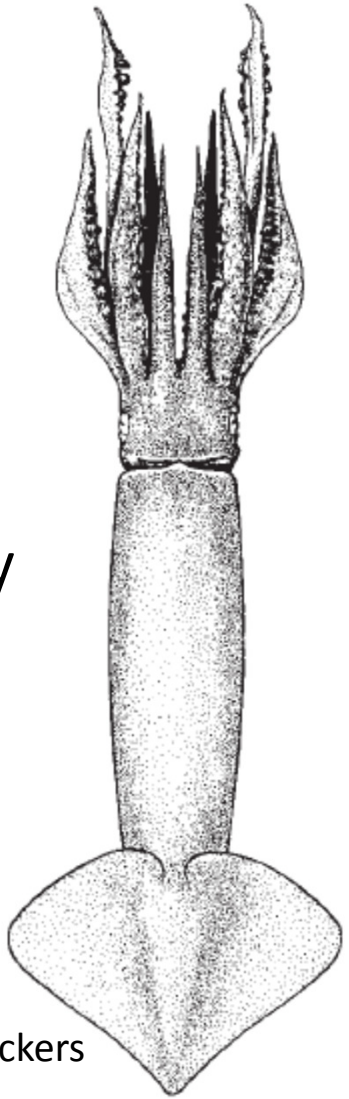
The **funnel groove is smooth, without foveola or sidepockets**.







A slender body

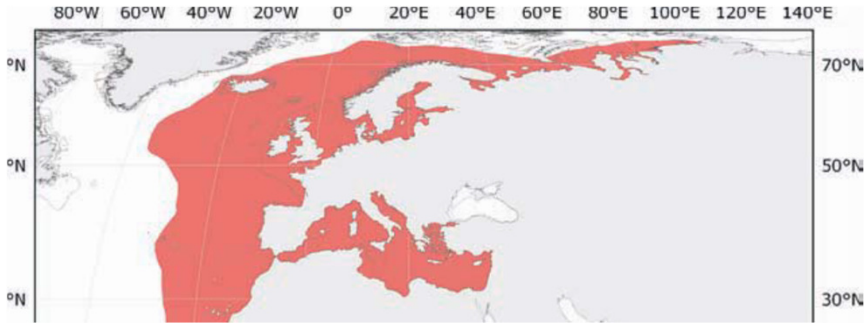


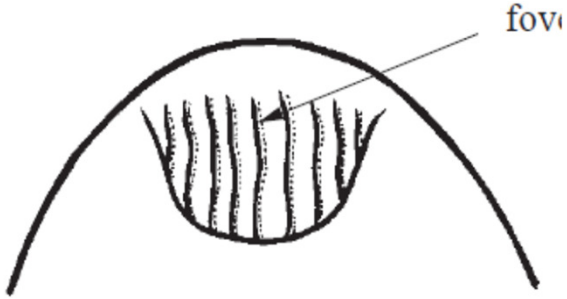
Most of the tentacle length is WITHOUT suckers

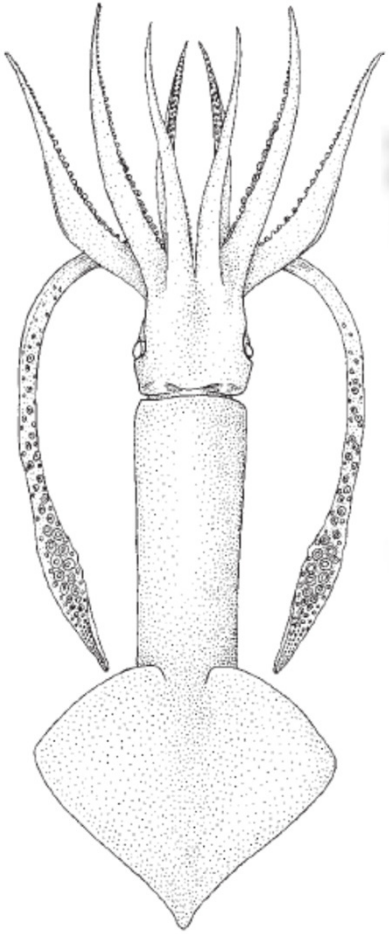
Todarodes sagittatus

Arrow squid

Most of the tentacle length is **WITH** suckers



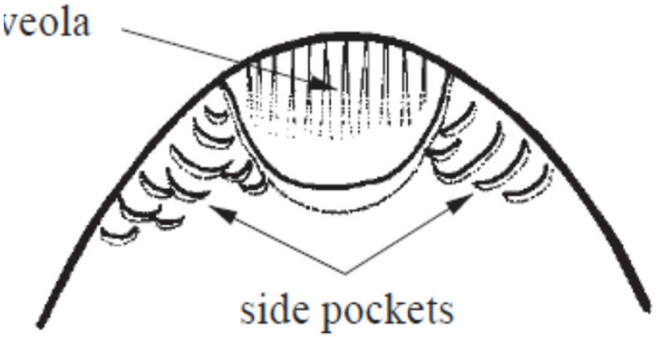


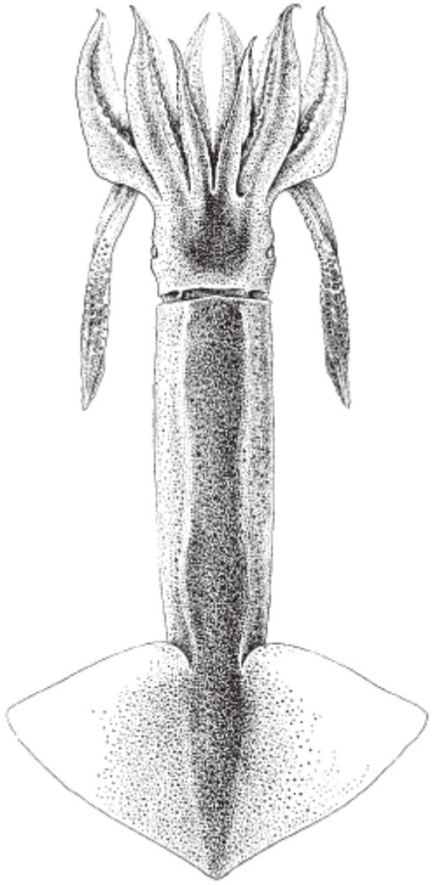


A slender body, attenuated tail in adults

Ommastrephes bartrami

Flying squid





Most of the tentacle length is WITHOUT suckers

photophores present. **A long, wide, silvery or golden opalescent strip extends along the ventral midline from just posterior to the mantle opening to the level of the anterior edge of the fins**. Similar silvery or golden tissue occurs on the ventral surface of the head and ventral arms. A relatively dense aggregation of small subcutaneous photophores is

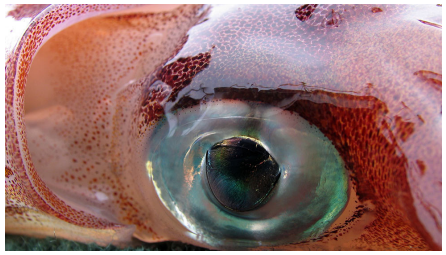
Fin is of a different shape – it is a really flying squid.

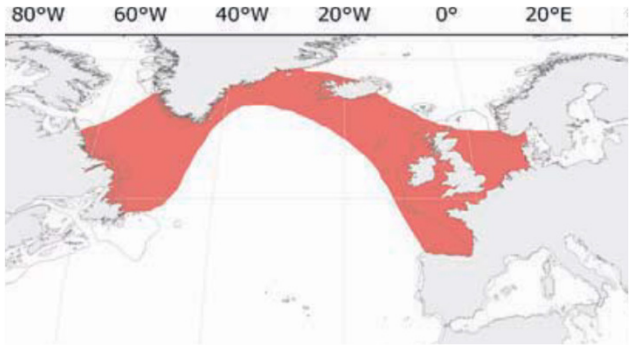
Open oceanic species (bottom > 1000 m) between Mauritania and Scotland

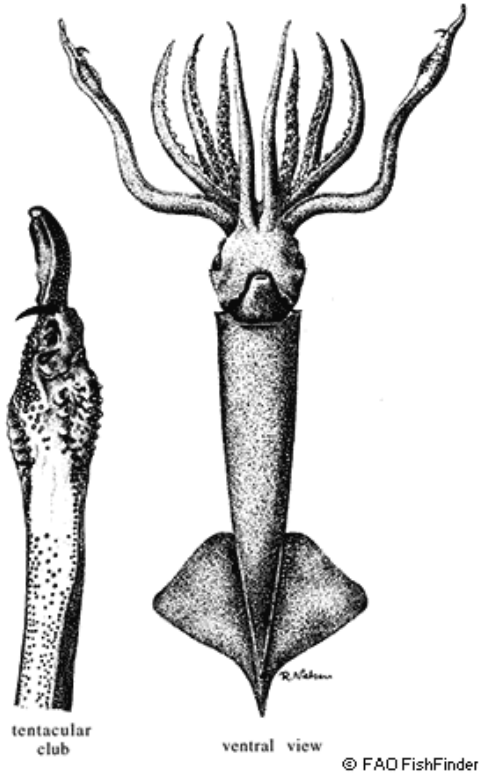
Squid – Oegopsida: Gonatidae

Atlantic Armhook squid

Oegopsid eye with hole in cornea



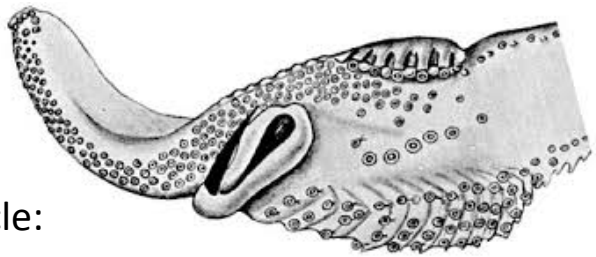




Very slender body

Simple funnel-locking cartilage (as in *Loligo*):

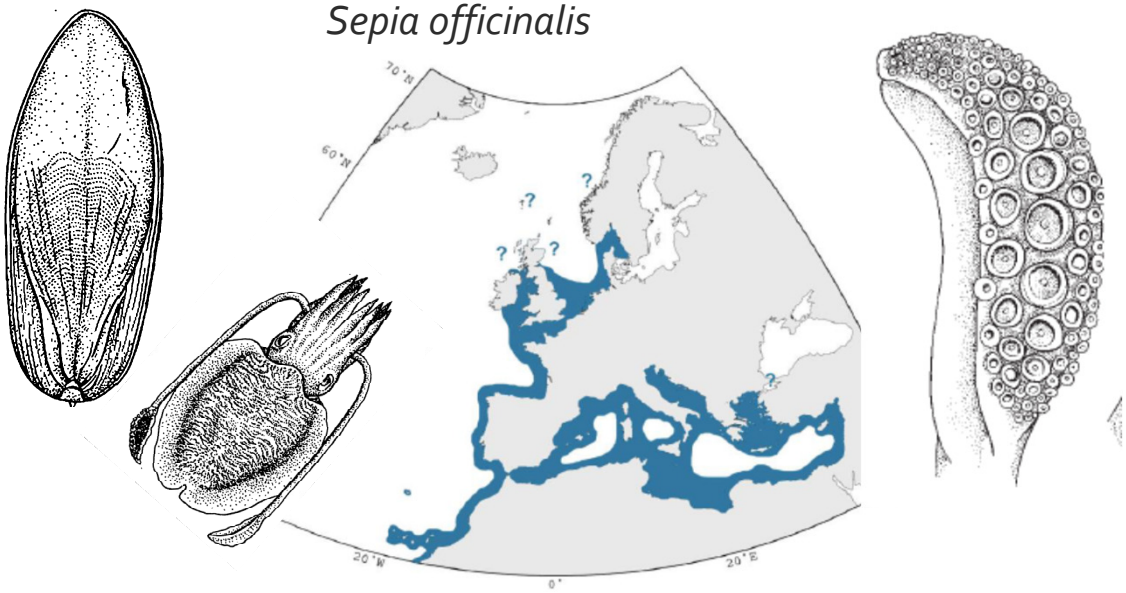
A big hook on the tentacle:



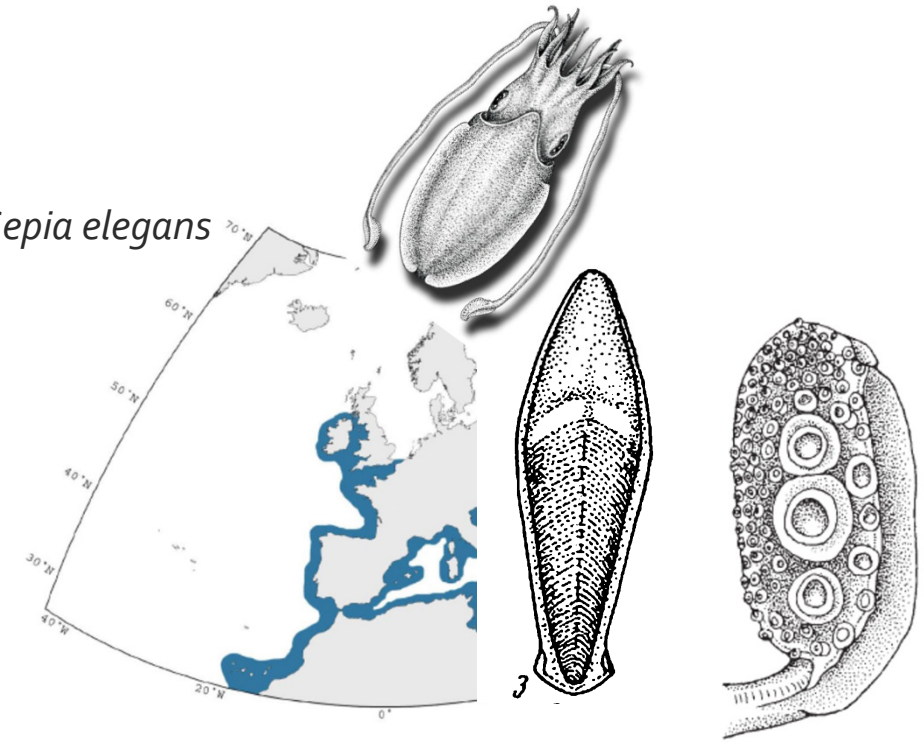
Oceanic species, might be occasionally met on continental slope from Portugal to the West Scotland (bottom > 1000 m)

Cuttlefishes - Sepiida

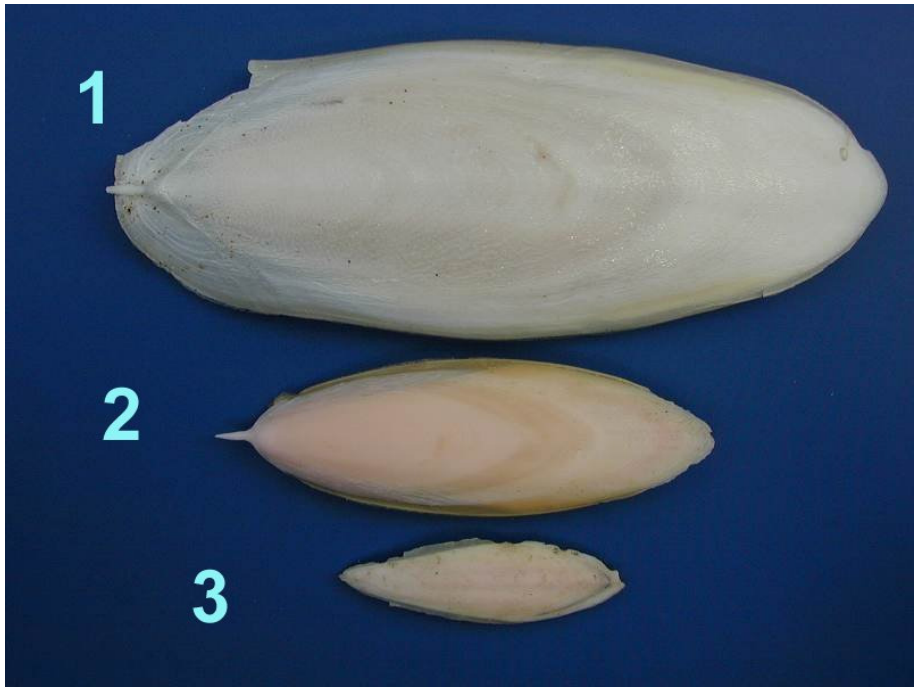
Sepia officinalis



Sepia elegans



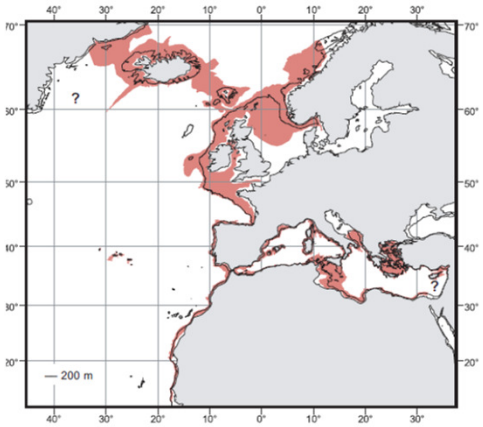
Sepia orbygniana



1 *Sepia officinalis* Linnaeus
2 *Sepia orbignyana* Férussac
3 *Sepia elegans* d'Orbigny

Sepiolida: Rossiinae: Rossia

Head and mantle are not joined

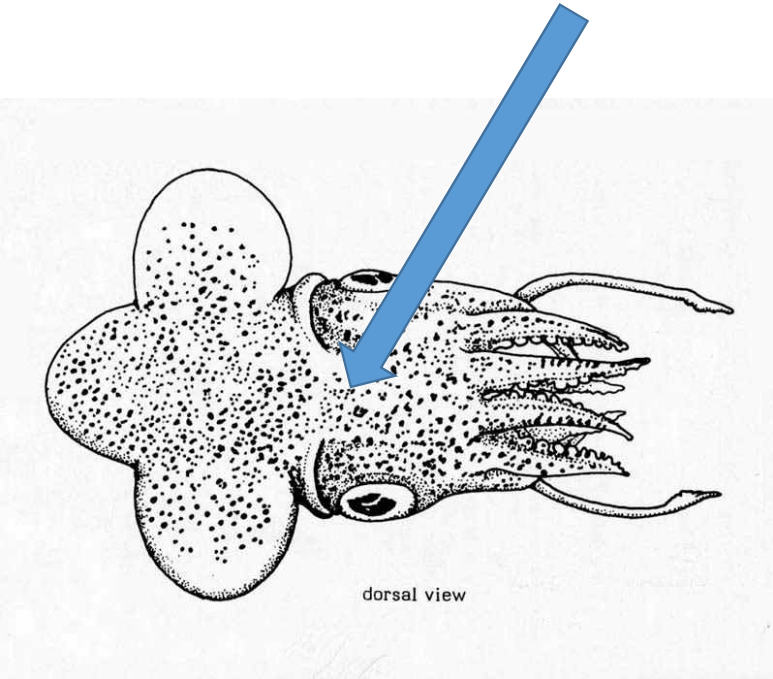


Rossia macrosoma – a common U.K. species; head and dorsal mantle smooth

Rossia palpebrosa – an Arctic species, could be occasionally captured at north Scotland. Head and dorsal mantle rough

Sepiolida: Sepiolinae

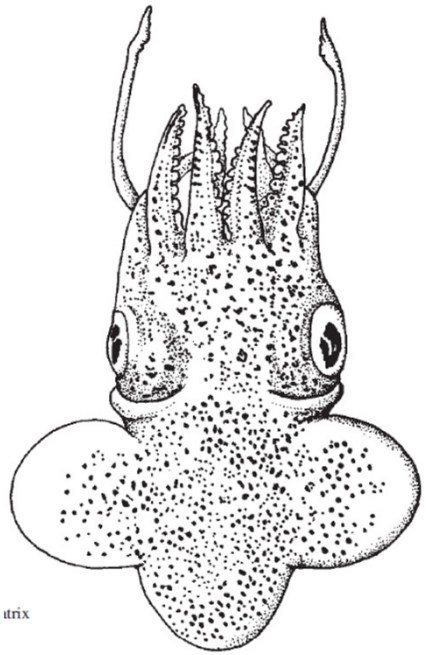
Head and mantle are joined



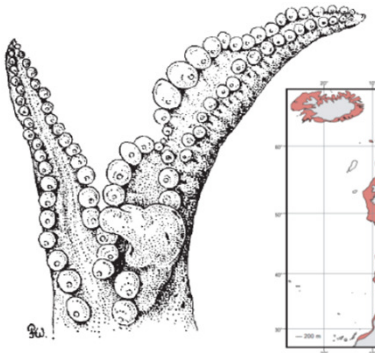
- Inside of the mantle there is a light organ on the ink sac – *SEPIOLA*

- There is no light organ on the ink sac - *SEPIETTA*

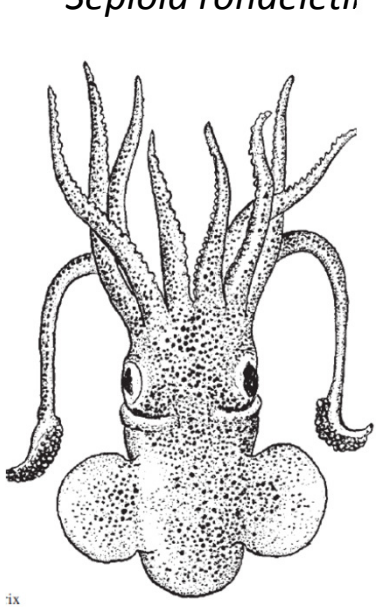
Sepiola spp – these cuttlefishes are best recognisable by modified arms of mature males, though…



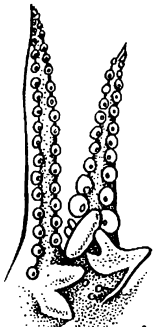
Sepiola atlantica



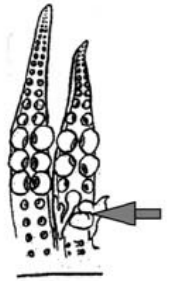
Sepiola rondeletii

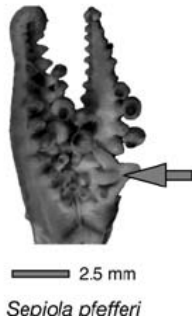


Sepiola aurantiaca from Mediterranean to Norway

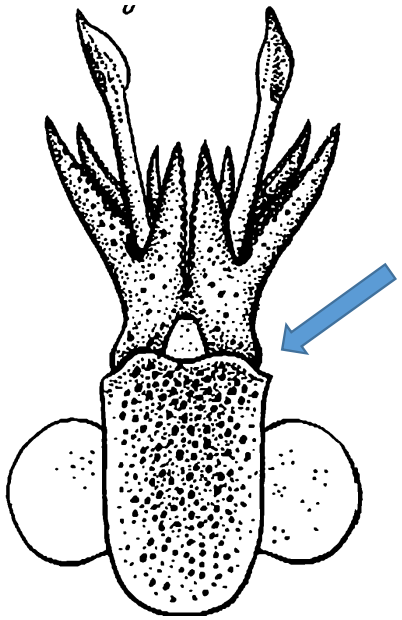


Sepiola pfefferi from Brittany to Norway



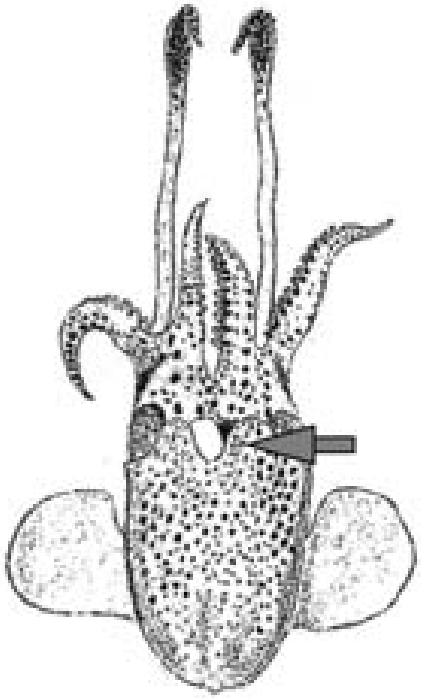


… both sexes could be identifiable by the ventral edge of the mantle



Sepiola atlantica and

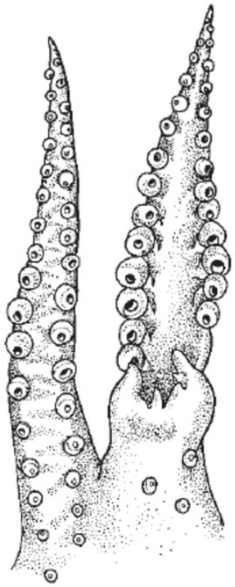
Sepiola rondeletii

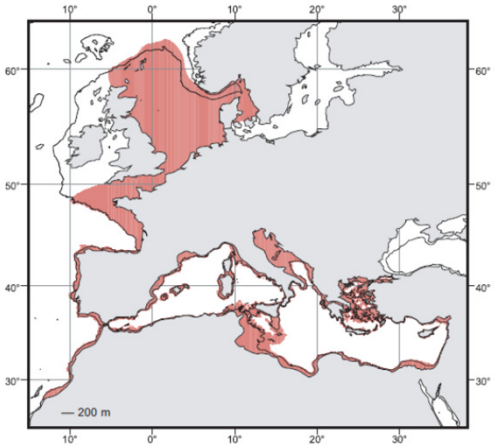


Russell, 1922
Sepiola aurantiaca

Grimpe, 1921
Sepiola pfefferi

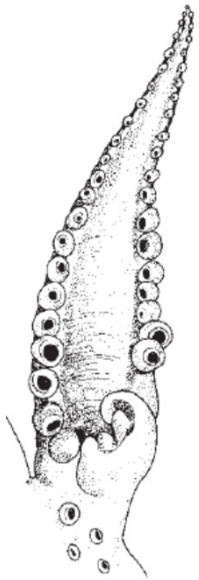
Sepietta spp – a modified arm of a mature male is the ONLY reliable tool for identification; females are generally not identifiable in field

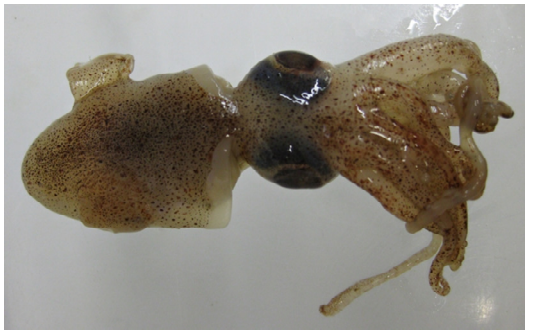


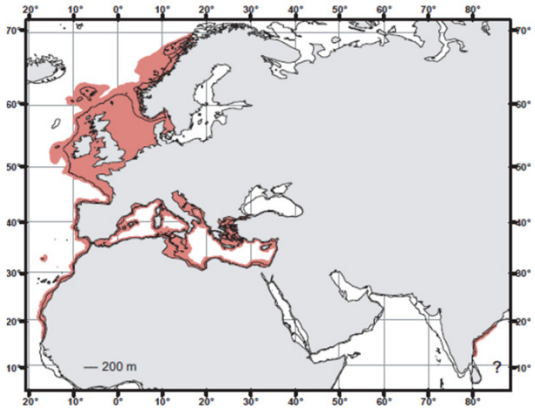


Sepietta neglecta (a smaller species, adults up to 5 cm without tentacles)

or lost during fisheries operations. The clubs differ between the 2 species: the club is shorter, more delicate and bears smaller suckers in *S. neglecta*, than in *S. oweniana*. Males are easily identified by the structure of the hectocotylus.



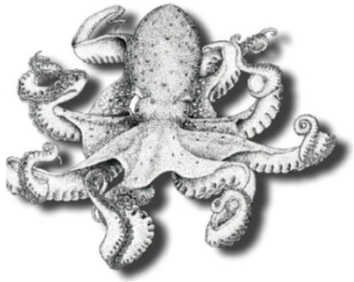




Sepietta oweniana (a larger species – adults up to 7-9 cm without tentacles)

Octopoda

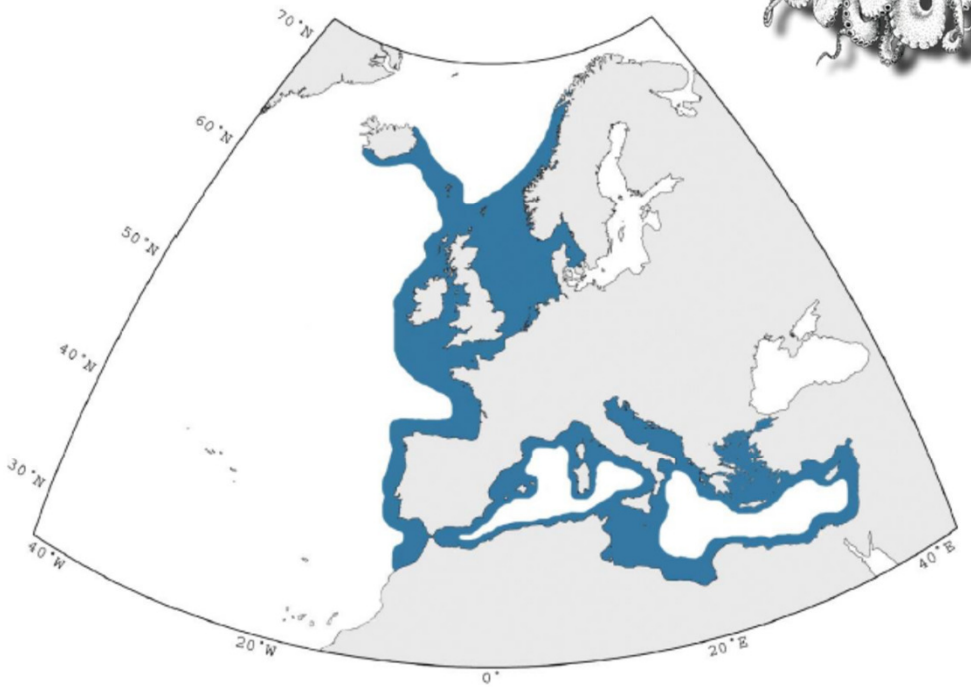
Two rows of suckers



Octopus vulgaris

One row of suckers

Eledone cirrhosa



In deep seas > 400 m one may occasionally catch *Batypolipus arcticus* though sometimes the species could happen much shallower