

References for Cephalopods of the N. W. Atlantic Ocean

- Abbott, T. R. 1974. American Seashells. Van Nostrand Reinhold Co., N. Y. pp. 569-598.
- Clarke, M. R. 1966. A review of the systematics and ecology of oceanic squids. Adv. Mar. Biol. 4: 91-300.
- Johnson, C. W. 1934. List of marine Mollusca of the Atlantic coast from Labrador to Texas. Proc. Bos. Soc. Nat. Hist. 40 (1): 1-204.
- Macalaster, E. G. 1977. Cephalopods in the collection of the Nova Scotia Museum, Curatorial Report No. 33.
- Verrill, A. E. 1880. The Cephalopods of the North Eastern coast of North America. Trans. Conn. Acad. Arts & Sci. 5(2): 259-447.
- _____ 1882a. Report on the Cephalopods of the Northeastern coast of North America. Ann. Rept. U. S. Commission Fish and Fisheries for 1879. 1-244, 46 plates.
- Voss, N. 1970. A monograph of the cephalopods of the N. Atlantic: Family Histioteuthidae. Bull. Mar. Sci. (Miami) 19(4): 713-867.

Sources of drawings:

Argonauta after Voss, 1970
Bathypolypus after Verrill, 1880
all others after Abbott, 1974

Text by Elizabeth Macalaster
Prepared by Debra Burleson
Nova Scotia Museum 1977

Squids and Octopuses of Nova Scotia

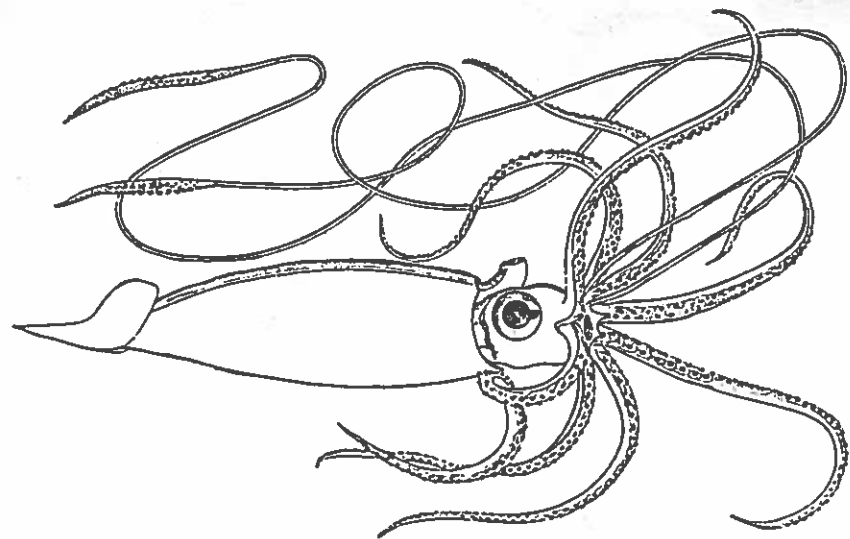
Cephalopods are a most diverse and interesting class of molluscs. Although they belong to the same phylum as snails and clams their structure and habits separate them from the rest of the group. With the reduction or loss of the typical mollusc shell cephalopods have developed a structure to suit an active, independent life. Pelagic (open ocean-living) species (most squid) are streamlined for rapid and efficient movement. They have a narrow, long internal shell, or pen, which holds them rigid, and most species have fins to aid in swimming and balance. Benthic (bottom-dwelling) species (most octopods) are short, rounded and soft. They usually lack fins and any internal solid structure, enabling them to crawl along the bottom and in and out of crevices with ease. All cephalopods have a siphon through which they squirt water by contracting muscles in the mantle surrounding their bodies. This enables them to propel forwards or backwards at a rapid rate.

Cephalopods are usually active carnivores, grasping their prey with their arms or tentacles, then biting off pieces with their beak-like jaws. Hunting is aided by well-developed senses such as excellent eye-sight. If they cannot readily escape their own predators an inky cloud is often ejected as a screen or decoy to detain the enemy.

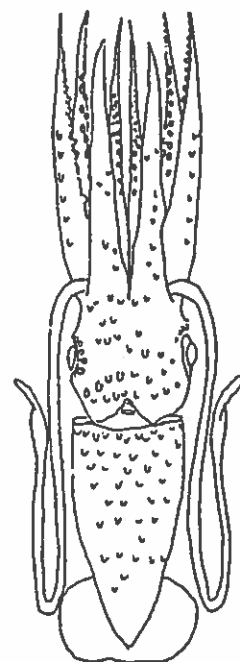
In this area two species of squid are used for fish bait and recently are being caught for human consumption as in other countries. Squid also serve as food for marine animals such as large fish, whales and seals. Other types of cephalopods not common to this area have been used commercially for many purposes. The shell of the pearly nautilus has been used for jewellery and Sepia, the cuttlefish, was once sought as a source for durable writing ink.

The variety in size, shape and habits of cephalopods is readily shown by species found in waters around Nova Scotia. Pictured on the next two pages are 10 of the approximately 40 species that occur in this area. The collection of the Nova Scotia Museum contains specimens of all of the 10 species, in addition to several others.

Squids and Octopuses of Nova Scotia



Architeuthis Giant Squid
The Giant Squid is common off Newfoundland and grows up to 18 m. In folklore, it is often depicted as a huge monster battling whales.

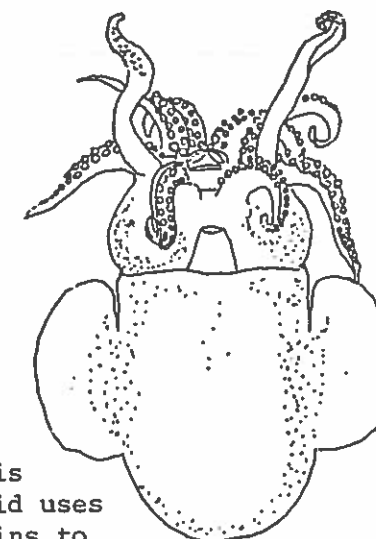


Histiotteuthis reversa
(Verrill, 1880)
A small squid, 6-90 mm, with prominent photophores on its skin.

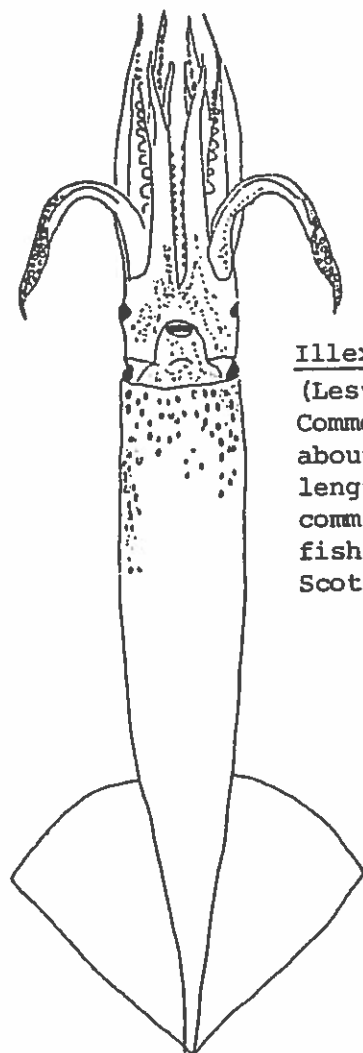
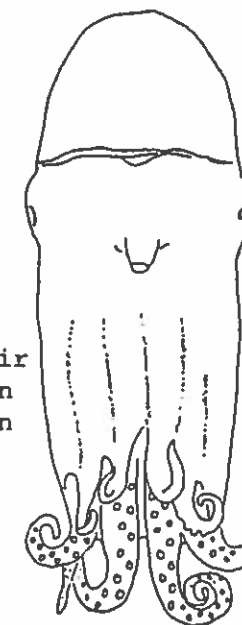


Abraliopsis pfefferi
(Joubin, 1896)
Another small squid, 20-30 mm, often found in plankton tows on the Nova Scotia shelf.

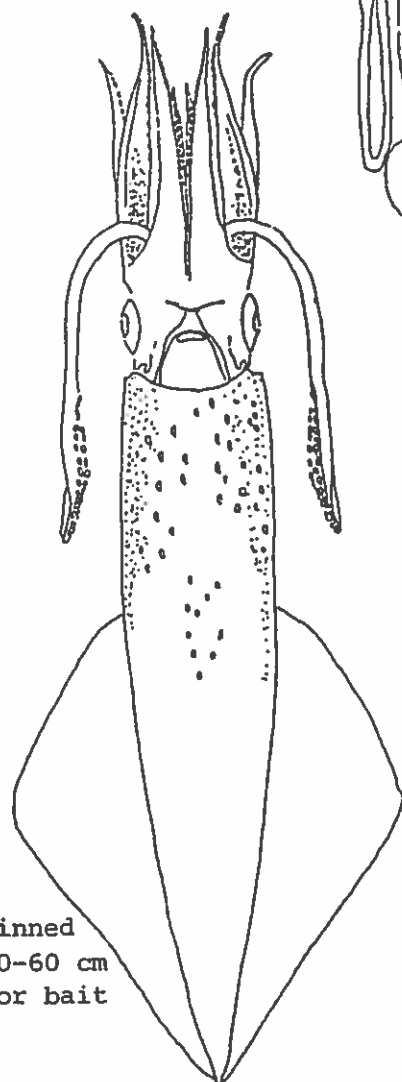
Rossia glaucopsis
(Loven, 1845)
Bob-tailed Squid. Short and tubby, this bottom dwelling squid uses its semi-circular fins to propel itself through the water.



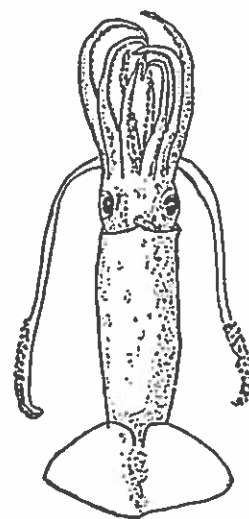
Alloposus mollis
(Verrill, 1880)
A dark coloured pelagic octopus whose arms are webbed nearly down to their tips, giving the animal an "umbrella" appearance when extended.



Illex illecebrosus
(Lesueur, 1821)
Common Squid, about 30 cm total length. Fished commercially for fish bait in Nova Scotia.



Loligo pealeii
(Lesueur, 1821)
Atlantic Long-Finned Squid, length 30-60 cm
Commonly used for bait in New England.



Gonatus fabricii
(Lichtenstein, 1818)
Small, 40 mm, commonly used for bait in the shellfish and codfish industry in the Arctic; main food of Bottlenose Whale.

Bathypolypus arcticus (Prosch, 1849)
This small octopus (100 mm) lives on the ocean bottom in deep water. Unlike most shallow-water species, it changes hue only slightly and has no ink sac.



Argonauta argo (Linné 1758)
Common Paper Nautilus.
When sexually mature, female Argonauta secrete a delicate shell in which the eggs are held during incubation.

