

**THE FOLLOWING MATERIAL WILL BE
COVERED IN THE LABORATORY**

PHYLUM MOLLUSCA

A. CLASS GASTROPODA: External Anatomy Of A Whelk

Except for the peculiar twisting and spiraling of their bodies, gastropods are thought to be rather like the ancestral molluscs. They have a distinct head with well-developed sense organs, and most have a well-developed radula. But two characteristics of the gastropods are particularly important: Their bodies have undergone torsion, and also coiling. Torsion occurs during the development of the gastropod larva; the digestive tract bends downward and forward until the anus comes to lie close to the mouth, making the digestive tract U-shaped. Then the entire visceral mass rotates through an angle of 180 degrees, coming to lie dorsal to the head in the anterior part of the body. The body then begins coiling; most of the visceral organs on one side (usually the left) atrophy, and growth proceeds asymmetrically, producing the characteristic spiral. The coiling is particularly noticeable in the shell, although in some cases the coiling is minimal. Some species, e.g., the nudibranchs and slugs, have lost the shell, and the coiling, completely.

Busycon canaliculatum is a large whelk (snail) of the east coast. It occurs commonly in shallow waters from the south shore of Cape Cod to the Gulf of Mexico. By means of its tremendous foot, it can plow through the sand in search of clams upon which it feeds. It grips the clam with its foot and uses its shell as a wedge to pry the clam apart.

External Anatomy. Begin your study by examining the entire **shell** (Fig 6). The shell is a structure somewhat like a spiral staircase. The apex lies at the peak of the spire, which is composed of several whorls. Notice the increase in size of each whorl from the apical region to the body whorl which is both the largest and most recently formed. On the external surface, notice the lines that represent successive periods of growth.

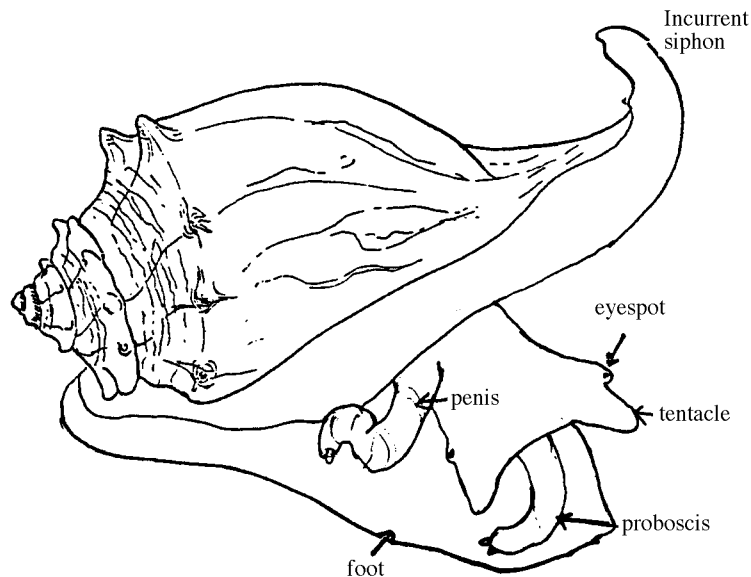


Fig. 6. External anatomy of a male *Busycon*.