

# Lightning Whelk

*Busycon perversum pulleyi*



TPWD PHOTO



The lightning whelk's shell is a treasure that can often be found along the coast from North Carolina to Texas. Shown with this shell is a strand of egg capsules from which tiny lightning whelk juveniles have emerged.

Coastal Wetlands

# Lightning Whelk

*Busyon perversum pulleyi*



## APPEARANCE

**Shell length:** 2.5 to 16 inches (6 to 40 cm)

### Distinguishing Characteristics

- Off-white to tan or gray shell with narrow, brown "lightning" streaks from the top of the shell to the bottom; the shell is white on the inside.
- The animal inside the shell is dark brown to black.
- Counterclockwise shell spiral (lightning whelks are usually called "left handed")

## LIFE HISTORY

**Range:** Along the Gulf Coast

**Diet:** *Bivalves* (invertebrates with two shells), especially oysters, clams, and scallops

**Predators:** Gulls, crabs, and other whelks

**Mating season:** Late October and early January

**Spawning season:** March and April

**Eggs:** The female lays eggs in long strings of capsules 11 to 33 inches (27 to 83 cm) long. Each strand has up to 145 capsules and each capsule may contain 20 to 100 eggs. Only about 8 to 13 of the eggs in each capsule hatch.

**Young:** Juveniles will begin hatching in May and emerge as tiny lightning whelks.

**Life span:** Unknown

## HABITAT

Lightning whelks may be found on the bottom of shallow bays in sand or mud near shoalgrass or turtlegrass meadows.

## BEHAVIOR

The carnivorous habits of the whelks begin as hatchlings. The whelks that hatch feed on the eggs that did not hatch. When feeding, an adult whelk will try to pry open a bivalve by inserting the edge of its shell inside the bivalve and using it like a crowbar. If it cannot pry the bivalve's shell open this way, it will grind the shell with its own shell until it creates a hole large enough to insert its *radula* (toothed tongue). The lightning whelk can "smell" its prey with special sensory organs inside its body and will almost completely bury itself searching for other food.

## NOW YOU KNOW!

- Like snails, the lightning whelk is in the class Gastropoda which means "stomach footed." Gastropods are *univalves* (have only one shell).
- Hermit crabs often make homes of unoccupied lightning whelk shells.
- Lightning whelks leave behind a trail when crawling. It is often easy to track them.
- The shell grows very quickly when the whelk is young as long as food is abundant. As it gets older, the shell grows more slowly. The color of the shell depends greatly on light, temperature and age. Older whelks have pale shells.

## LIGHTNING WHELKS AND PEOPLE

Native Americans harvested whelks for religious ceremonies and practical tools. Many tribes believed that the "left handed" spiral made the shells sacred objects, but whelks were also eaten and their shells used as scrapers, gouges and even cups and bowls. Some larger shells can hold up to one quart of liquid. It is believed that sailors even used the egg cases as sponges for bathing. The lightning whelk shell is recognized as the official Texas State Shell.