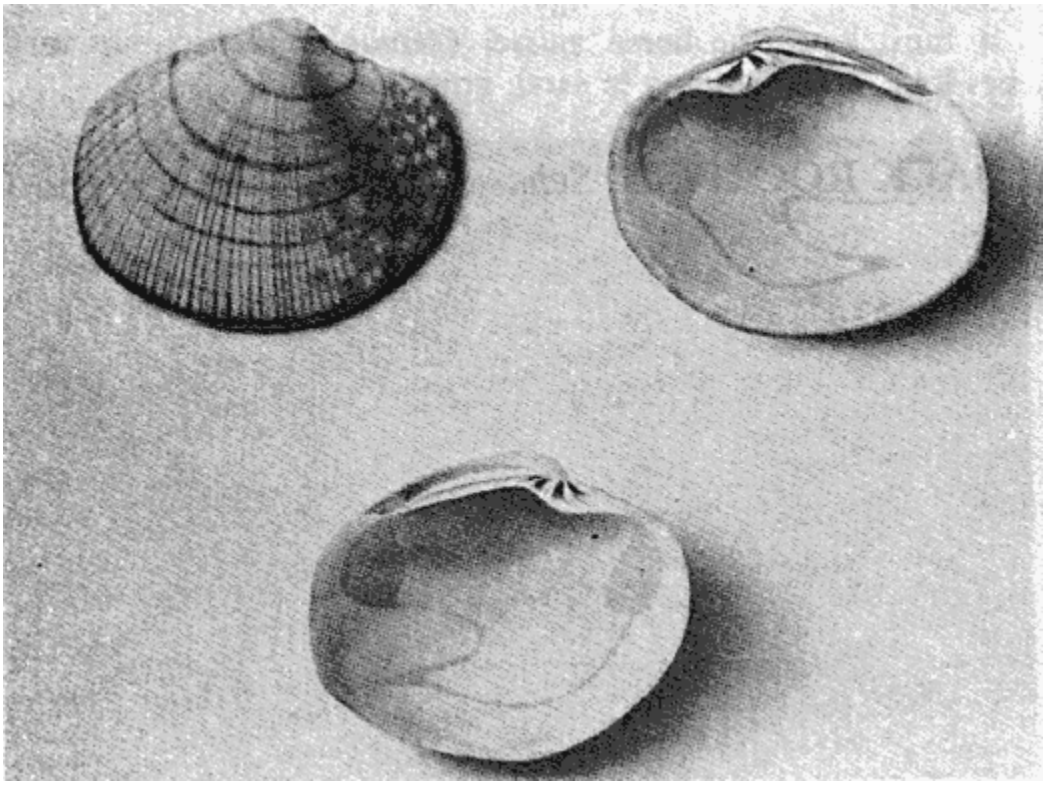
LITTLENECK CLAM

Protothaca staminea



TAXONOMY

Phylum: Mollusca
Class: Bivalvia
Order: Veneroida
Family: Veneridae

ECOLOGICAL DATA

Distribution: common in protected beaches in bays and estuaries along B.C. coast, and near rocky outcrops on outer coast.

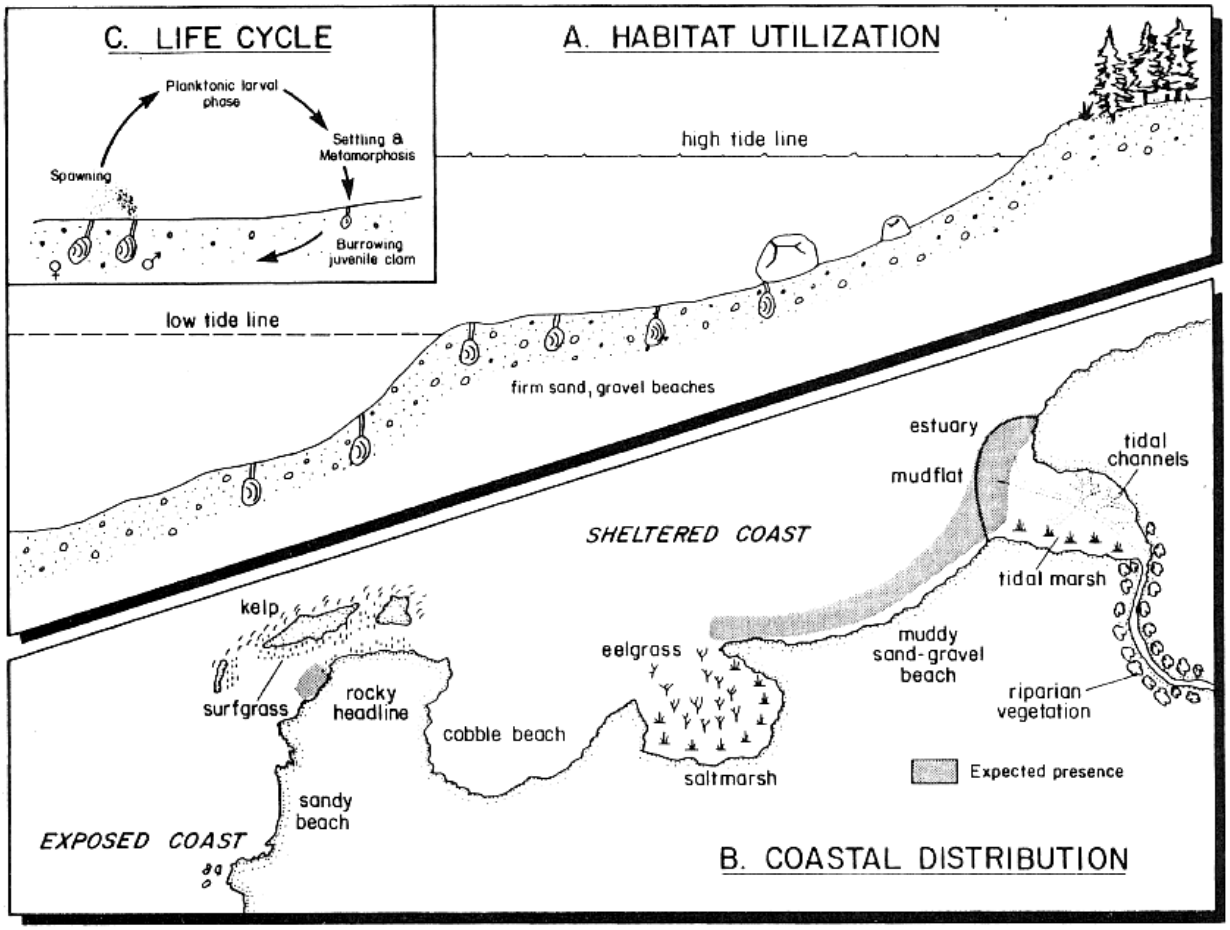
Habitat: firm, gravel beaches; often in association with butter clam; burrow to a maximum depth of 15 cm, but usually 3-8 cm below surface; planktonic larvae dispersed by currents; adults remain in same burrow for life.

Tidal elevation: slightly above mid-intertidal to subtidal; may occur to 12 m subtidal depth.
Food: suspension feeder; mainly phytoplankton, but also zooplankton and detritus.

Predators: crabs and fishes prey on juveniles; moon snail, birds, and sea stars prey on adults.

GROWTH RATE

Slow; sexually mature at 25 mm (about 2 yr.); legal size of 38 mm is reached in 3.5 yr in Strait of Georgia and 5-6 yr in north coast.



Generalized life cycle of the littleneck clam: Male and female clams spawn from May to September in the Strait of Georgia, and begin later in north coast. Mass fertilization occurs in water column. Fertilized eggs develop into ciliated, motile larvae within 12 h of fertilization. Larval phase includes several stages (i.e. trochophore, veliger and umbone) and lasts for 3-4 weeks, during which time the larvae drift in the plankton and are dispersed by water currents. The larval phase ends when larvae settle from the plankton and attach themselves to gravel or broken shell by byssal threads, referred to as spatting. At approximately 5 mm the spat or juvenile clam creates a permanent burrow where it remains for life. Although littleneck clams may spawn every year, poor juvenile recruitment due to adverse environmental conditions, predation or competition can affect adult abundance. Adult clams may live to 10 years and reach a maximum shell length of 75 mm.