

SHARING RESPONSIBILITY FOR PACIFIC BIVALVES

INTERTIDAL

Clams

Left Valve

Right Valve

Classified as Bivalves, clams are mollusks with two valves—two shells joined by a hinge.

Sizing-up popular species

Leave small clams to grow and reproduce.

Measure correctly to help manage sustainable clam fisheries.

TL = Total Length
RECOMMENDED HARVEST SIZE

Manila Clam



TL = 35+ mm

Littleneck Clam



TL = 35+ mm

Butter Clam



TL = 55+ mm

Clams are also identified by adductor muscle scars inside the right valve. More colourful in Manila Clam, scars are evidence of life inside the shell.



Expect your catch success to vary

Within a single clam species on the same beach, the growth, health and abundance of clams is highly unpredictable, which means you can expect catch success for all species to vary— whenever or wherever you fish coast-wide.

Clam life cycles are filled with biological and environmental variability.

12 HOURS

FERTILIZATION

When tides and temperatures are “just right” for sperm and egg to meet, fertilization can occur within 12 hours. Some years successful reproduction may not occur at all.

1 HOUR

SPAWNING

Spawning is a brief event that can last for as little as 1 hour between April and October, when water temperature rises above 15°C. Sperm in the water can also trigger nearby clams to spawn, causing a “mass spawning event.”

1-3 YEARS

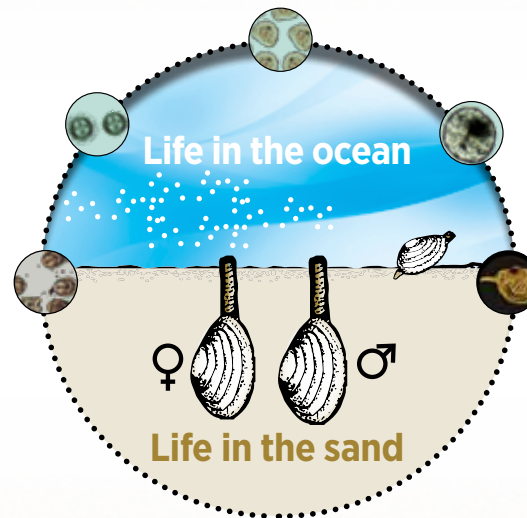
SEXUAL MATURITY

While sexual differences are not obvious to the untrained eye, clams do have 2 separate genders. Most species reach sexual maturity and reproduce for the first time at 2-3 years-old and some take up to 5 years. The lifespan for Manila, Littleneck, Butter and Razor clams is 14-20 years.

3-8 WEEKS

SWIMMING LARVAE

In a few weeks larvae develop both valves, an organ to collect food as they swim, and a complete digestive system. Life in the water is rough for larvae, so the swimming stage can vary in time.



2 WEEKS

SETTLING

Known as “spatting,” when the swimming stage ends, mature larvae settle down over a period of two weeks and attach to broken shell, sand, or gravel into their habitat.

6-24 MONTHS

JUVENILES GROW SHELLS

Smaller than your pinky fingernail, tiny juveniles begin to make their own shells from the inside out. As the clam matures, it grows into new shell produced by a layer of tissue enfolding the clam body called the mantle. With the help of a “foot,” juveniles will burrow into their intertidal habitat where they will remain for life.

LIFE INSIDE THE SHELL

You may not see it when you crack open a clam shell, but there’s a lot of life inside. Clams have a nervous system and a heart that pumps clear blood with the help of an adductor muscle. Able to breathe and filter feed at the same time, clams “inhale” food in one side of a dual-pipe organ called a siphon, where it is filtered through gills and digested, or “exhaled” out the other side. They even “clap” their shells to remove leftovers!

Eating contaminated shellfish can be life threatening! Check area closures.

The next time you see the sand squirting water it likely means clams are “filter feeding” under foot. Clams expel water as they feed, providing nutrient-rich habitat for other marine life. This feeding method also means clams can ingest toxic algae (often called red tide) which can lead to Paralytic Shellfish Poisoning (PSP), or harmful bacteria. These contaminants pose serious risks to human health.



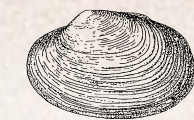
VISIT: www.pac.dfo-mpo.gc.ca

Shellfish contamination



Shells and habitat

Designed to shield clams from tides, temperatures and predators, shells tell a story about habitat.



Concentric pattern



Radial + concentric pattern

HIGH TIDAL ZONE

Manila Clam shells are oblong and concentric. Shallow-dwellers like these need thicker, heavier shells for protection from frequent exposure that is common in high tidal zones.

Manila

MID TIDAL ZONE

Littleneck Clam shells are concentric and radial while Butter Clam shells are concentric. Both are oblong with rough textures for easy burrowing into gravel or coarse sand in mid to low tidal habitats.

Littleneck

Butter

LOW TIDAL ZONE

Razor Clam shells are long, narrow, concentric and smooth, with razor sharp edges that are efficient for burrowing.

Razor



TL = 90+ mm

Razor Clam is only abundant in BC near lowest water lines on the west coast of Vancouver Island or in Haida Gwaii. Razor sharp shells and a muscular foot enable these deep dwellers to dig half-a-meter within a minute.

EXPECT Clam catch success to vary

VISIT: www.pac.dfo-mpo.gc.ca

Intertidal clams



PROTECT Marine health & safety

VISIT: www.pac.dfo-mpo.gc.ca

Shellfish regulations



RESPECT Fishing limits & closures

VISIT: www.pac.dfo-mpo.gc.ca

Recreational fishing licence



1-866-431-3474
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INFORMATION LINE

1-800-465-4336
24-HOUR REPORTING LINE
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