# Sizing up prawns

2nd Pleopod

### Eggs

Mature females carry eggs on their abdomens for up to six months during the fall and winter.

### Maturity & gender differences

Sexual structures are located on the inner margin of the second pleopod and while they provide an accurate indication of sex stage, differences are very difficult for the untrained eye to see. As prawns transition from male to mature female the male appendix gradually disappears with each moult.

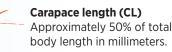
#### Growth and moulting

Prawns grow as they mature, shedding external shells throughout the year adding 10% in body length and 30% in body weight with each moult. While size provides a visual indicator of age class and gender stage, it is not fool-proof.

#### Spawning females are monitored to determine fishery closures

Since prawn populations change rapidly and constantly over a short lifespan, the number of egg-bearing females present in the population provides an important measure of stock status. As a result, the primary assessment tool fisheries scientists and managers use to regulate sustainable populations is the Spawner Index (SI) – a minimum number of spawning females caught per trap over a 24-hour period. SI data are analyzed to determine commercial fishery closures in the spring and sport fishery closures in the fall. Even when male prawns are abundant, an area may be closed due to a lower count of spawning females.

## 42-48 MM CL **37-42** MM CL 34-40 MM CL 22-34 MM CL EARS 20 30 40 50 10 mm Carapace length (CL)





# **Prawns spawn!**

Wild prawns are a short-lived, complex species and a tasty, popular shellfish! As part of their reproductive processes prawns transition from male to female halfway through their 4-year lifecycle. Pacific prawn fisheries are seasonally monitored and managed for population health to ensure sustainable fishing opportunities for all licenced prawn harvesters throughout the region.

Expect catch success to vary every season. Every season marks a new life stage with environmental conditions that influence prawn abundance. Ocean currents, larval distribution and changes in water temperature and salinity all have an impact on survival and population strength. When it comes to prawn fishing there is no such thing as "an average condition of abundance," which means you can count on your catch success to vary-season to season, area to area, year over year, throughout the Pacific region.

Respect biological monitoring, catch limits and seasonal closures. Sampling occurs in the spring during the commercial fishery and again in the fall during spawning season. Trained fisheries observers are authorized to board commercial vessels to examine traps to sort and count catch by gender and maturity stage. Monitoring results may necessitate seasonal closures that apply to all fisheries. Winter is when the highest number of spawning females are present. During this time recreational harvesters must respect area closures or, if areas are open, protect egg-bearing females by returning them to the water in support of future stock strength.

## **Expect a variety of prawn life stages every season!**

12 months = the average annual recreational fishing season subject to area closures.

Winter is the 4th and final life stage when 4-year-old females hatch eggs to begin another lifecycle before they die.

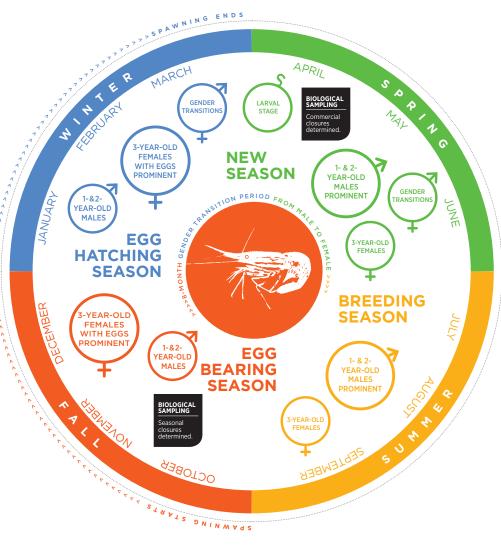


years = the maximum lifespan for prawns in British Columbia.

Fall is egg-bearing season, when 3-year-old females produce and carry eggs for up to six months.

traps = the limit for each recreational fishery licencee.

prawns = the daily catch limit for licenced recreational fishers.





Canada



Protect egg-bearing female prawns. It's mandatory to release them! The Pacific prawn fishery is managed with a precautionary approach and seasonal, biological sampling is an important practice used to determine that there are enough spawning females in the population in any given area.

## 53

days = the average annual season for the commercial fishery, subject to area closures.

**Spring** is when a new season and lifecycle begins. Prawns hatch as larvae, living in the water column for up to 3 months as they settle to the ocean floor to mature as males for the first two years of life. Larvae distribution is dependent upon tides and currents, which means that each local area will have different adult prawn abundance from year to year.

## 300 traps = the limit for each commercial fishery licencee.

**Summer** is breeding season. After an 8-month male-to-female gender transition period, newly transitioned 3-year-old females will breed with younger, 1- and 2-year-old males.

33 millimeters CL = minimum allowable size for commercial harvest; smaller prawns must be sorted and released.

