

hatchery,cycle.txt

The Hatchery Cycle:

Whether gravid (ready-to-spawn) shrimp are captured in the wild or matured in the hatchery, they invariably spawn in the dark, so through photoperiod manipulation, they can be induced to spawn at any time. Depending on a number of variables (temperature, species, size, wild/captive and number of times previously spawned), they produce between 50,000 and 1,000,000 eggs. After one day, the eggs hatch into nauplii, the first larval stage. Nauplii, looking more like tiny aquatic spiders than shrimp, feed on their egg-yoke reserves for a couple of days. They then metamorphose into zoeae, the second larval stage, which have feathery appendages and elongated bodies but few adult shrimp characteristics. Zoeae feed on algae and a variety of formulated feeds for three to five days and then metamorphose into mysids, the third and final larval stage. Mysids have many of the characteristics of adult shrimp, like segmented bodies, eyestalks and shrimp-like tails. They feed on algae, formulated feeds and zooplankton. This stage lasts another three or four days, and then the mysids metamorphose into postlarvae. Postlarvae look like adult shrimp and feed on zooplankton, detritus and commercial feeds. Farmers refer to postlarvae as "PLs", and as each day passes, the stages are easier to work with than *P. monodon* (the most popular species in the Eastern Hemisphere), captive breeding is more common in the west than the east. Some of the breeding facilities recirculate the water in the tanks, creating a closed system where water quality variables can be controlled and external factors limited.