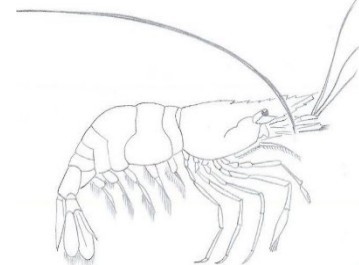


# Crevette blanche (*Penaeus notialis*)



Crevette blanche  
(*Farfantepenaeus  
notialis*)



## Habitats and food

Penaeidae shrimp are amphihalins. The adult's eggs and first larval stages are found at sea. The juveniles develop in the brackish or undersalted environment, estuaries or lagoons. Thus, the white shrimp lives in estuarine and lagoon environments during the juvenile phase and marine environments during the adult phase.

The life cycle of Penaeidae shrimps explains their great sensitivity to environmental conditions during the young stages.

It is a demersal species, living near the bottom. It frequents coastal waters of muddy and sandy-muddy bottoms, between 5 and 60 m deep and shallow waters of estuaries and lagoons. It can also be encountered in sandy areas, between the rocks. It presents very important concentrations on the sandy mud in the brackish medium.

In its marine phase, the white shrimp lives on the soft bottoms (muddy) between the coast and 65 m deep. During the adult phase, the white shrimp occupies a well-defined geographical area in which the water's surface reaches at least 24 °C in the year and rarely drop below 18 °C. The temperatures at the bottom can be at least 15 to 16 °C, these temperatures correspond to ecological requirements.



## Species and distribution

The white shrimp has a short lifespan for about twenty months. It occurs in the Atlantic Ocean and its tributaries, most notably on the West African coast, from Mauritania to Angola. In Senegal, two shrimp stocks have been identified, one located north of Cape Verde, between Cayar pit and Saint-Louis, and the other the south part, between Senegal and Guinea-Bissau.

The white shrimp performs three migrations: at the larval stage, it leaves the sea to join the estuarine environments; become juvenile, it returns to sea and there, it makes some movements that will enable it to find the better conditions of life (ecological preferendums).



## Reproduction and life cycle

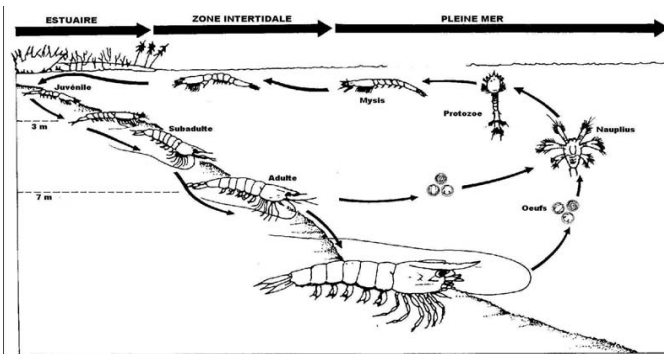
Most of the Penaeid shrimps, in particular, the white shrimp have sexes and are separated and an amphibiotic cycle alternating a marine phase and an estuarine phase.

The different stages of the life cycle of penaeid shrimp from the continental shelves are schematized as follows: The females lay eggs at the bottom and sea offshore. From these eggs hatch planktonic larvae in the 'nauplius' stage.

Larval development takes place through several successive stages: five "nauplius" stages, three "protozoa" stages and three "Mysis" stages. The last "Mysis" undergoes a molt which transforms it into post-larva. The first post-larval stages are still planktonic, but the following are semi-benthic.

Post-larvae enter estuaries or approach the coast. When the shrimp have acquired their definitive rostral formula, they are qualified as "juveniles".

At this stage, the shrimp leave the estuarine environment and migrate towards the intertidal zones (tidal balancing zone). They are called "sub-adults" when the external sexual organs (petasma in males and thelycum in females) are fully formed. Note that the life cycle of tropical penaeid shrimp is relatively short, around 18 months. These are fast growing species.



## Fishing methods

The coastal Penaeid shrimp are generally exploited at two stages of their life cycle: during their juvenile phase, in the estuary. They are subject to more or less intensive, by artisanal fisheries, sometimes very intensive, most often without real control. During their adult phase, they are subject to industrial bottom trawl fishing involving immature or adult individuals. These two types of exploitation are carried out sequentially and there are theoretical interactions between the two: artisanal fishing influences the stock of adults by reducing the number of juveniles that feed it. Adult fishing can theoretically affect the production of juveniles if the level of exploitation becomes such that the potential for stock renewal is reduced.



## Management measures and optionstion

The white shrimp stock is not subject to a quota. However, locally, some CLP and CLPA have implemented regulations in territorial waters. The management measures that are applied to white shrimp in Senegal are :

The regulations about the size of the first catch (200 individuals/kg);

The mesh size of the trawl in industrial shrimp fishing (50 mm);

The Biological rest;

The modalities of access to the resource (permit and license).

Besides, as part of the PRAO project, a management plan for white shrimp was developed. However, its implementation is slow to be executed.