

PHENOTYPIC DIFFERENCES IN CRUSTACEA JUNIOR TYPES

Odiljonov Khojiakbar Zokirjon ugli

Namangan state university


Abstract: *Most crustaceans have some sexes and sexual dimorphism is clearly expressed to some extent. For example, the abdomen of a female crayfish is slightly wider and the shape and function of the 2nd pair of gastropods is different, the 1st pair of gastropods has become a rudiment. The male of most benthic crustaceans is slightly smaller than the female.*

Key words: *crab, arthropod, system, individual, segment.*

Most crustaceans mate sexually. In some cases (mainly crustaceans) parthenogenesis and parthenogenetic and bisexual generations are observed. This cyclical process is seasonal in nature. In crustaceans, the male and female reproductive organs are simple. They consist of a pair of gonads and excretory ducts starting from them. In the crayfish, two sperm ducts emerge from the ovules. These roads will be quite long and winding. In males, the genital openings are located at the base of the 5th pair of thoracic legs, while in females, the genital openings are located at the base of the 3rd pair of walking legs. Eggs are fertilized differently. In some crustaceans, the seminal fluid is transferred to the genital tract of the female crab during mating. First, the sperm goes to the sperm receiver of the female crab and collects it. Sometimes the sperm is attached to the skin near the genital opening of the female crab.

Development. Fertilized eggs develop in different ways. Such different development depends on the amount of yolk in the egg. The development of crustaceans takes place in two ways, i.e. straight and metamorphosis. The egg of benthic crustaceans hatches as a result of incomplete cleavage into a small, simple nauplius larva. He will have one odd eye and three extra pairs. In nauplius, thoracic and abdominal segments are not fully developed. The body consists of only antennular, antennal and mandibular and anal segments. The nauplius develops with metamorphosis and forms a metanauplius. Maxillary and thoracic segments are clearly defined in it. Metanauplius molts several times and becomes an adult. In higher crustaceans, metamorphosis is not fully expressed. They contain protozoa and zoea stage larvae. The protozoan stage larva is characterized by the appearance of complex faceted eyes, the development of jaws, and the distinct separation of the thorax and abdomen. In the stage larva of Zoea, it differs from Protozoa in that the beginnings of the next pectoral legs appear and the thoracic and abdominal sections are more separated from each other. In shrimps, the zoea stage larva is followed by the myzid larva. In this larva,





two-horned pectoral legs are fully formed, abdominal legs appear. After molting a few times, the myzid larva turns into an adult crab.

A subclass of arthropods is Branchiopoda. Crustaceans belonging to this subclass include more ancient species, heteronomous segments of the body are not constant in number, the shape of the pectoral legs is leaf-like, they are adapted for movement, breathing and gathering food, at the end of the abdomen having a forked tail is characteristic. Species of this subclass live in seas, most of them in freshwater bodies. Amphibians are divided into 2 categories.


Phyllopoda family of leaf-footed crustaceans. There are about 560 types. It contains very small crustaceans. *Daphnia* (*Daphnia pulex*), *Limnadia lacustris* (*Limnadia lacustris*) are common species found in freshwater ponds. 83 Anostraca family of arthropods. There are about 180 known species of gavda joints, which are widespread in freshwater basins. Characteristic features: antennules, antennae, 1 nauplius eye, a pair of faceted eyes in the front part of the head; the back part of the head has two pairs of free jaws. The chest consists of 11-19 joints. Each joint has a pair of two-horned leaf-like legs. Representative *Artemea salina* - artemia.

Cephalocarida subclass - Cephalocarida. Their representatives are very small (2-3 mm) crustaceans that live buried in the mud at the bottom of the sea. The body consists of a single head, a 10-segmented thorax and a 9-segmented abdomen. Antennula and antenna are located on the head, there is no eye. This sign came from the fact that they live buried in sand (mud). At the end of its abdomen is a long forked sword. Currently, 4 types are known. Representative *Hutchinsoniella*. This species is found in the Atlantic Ocean. A subclass of arthropods is Machilopoda. These are quite widespread and include about 2,000 species of benthic and small crustaceans adapted to live in oceans and seas, various freshwater bodies, and even underground waters. The subclass of arthropods includes such families as Sopepoda, Sirripedia, and Branchiura.

Cyclops are included in the group of bipeds, the width of the thorax, the length of the abdomen, telson and furca, as well as the presence of a pair of tusks of medium length, and a pair of well-developed egg sacs in the female. It is distinguished by having Cyclops (*Cyclops strenuus*) living in fresh water and species of the genera *Diaptomus* (*Diaptomus*) and *Calanus* (*Calanus*) are common. Cyclops is of practical importance in medicine as it is an intermediate host of some parasitic worms of man.

Arthropods, which belong to the family of millipedes, have a thick shell, and most of them are adapted to living a sedentary life. Some species of millipedes live in deep (5000-7000 m) seas and oceans. Some species cling to the skin of sharks and whales and live as quarters. Species of the *Sacculina* genus are parasitic on decapod shrimps. Among free-living species, there are many sea ducks (*Lepas*) and sea ducks (*Balanus*). The carp family





includes about 60 species, and all of them are ectoparasitic on fish, especially carp. In some cases, cephalopod molluscs, frogs and their larvae have also been proven to be ectoparasitic. One of the most common species, the carp louse *Argulus foliaceus*, causes great damage to freshwater fisheries.

The subclass of shelled crustaceans is Ostracoda. It includes 84 crustaceans that are very small, sometimes visible only under a microscope, living in sea and freshwater basins. Currently, about 2000 species are known. *Cypris pubera* is one of the most common species in freshwater. Their body is located in a two-layer shell made of lime.

The subclass of higher crustaceans is Malacostraca. It is considered the largest group and includes more than 14,000 species. The characteristic features of this subclass of animals are that the body segments are continuous, consisting of 4 head, 8 thorax and 6 abdominal segments. Species are found in seas and oceans, in various freshwater bodies, and on land. The junior class consists of 14 categories, some of which can be mentioned as follows.

Stomatopoda family of gastropods. It includes animals with a long body, quite large, sometimes up to 35 cm in size. The abdomen is rather large and well developed. The protocephalon has large stalked mobile complex eyes and two pairs of whiskers. The first 4 thoracic segments are part of the maxillothoracic section. The next 5 pairs of thoracic legs have changed and turned into grasping (covering) organs. There are about 170 species of arthropods. Most are found in warm water seas. Large species are hunted and used for food. Representative *Squilla oratoria* - crab - beshiktervat. The size is 20 cm.

Amphipoda is a family of amphibians or all-legged. Crustaceans include more than 4,500 species of crustaceans widely distributed in sea and freshwater. Some of them live buried in the sand at the bottom of the water, and there are also many types of plankton. Some species (whale lice - *Cyamidae*) live parasitically on the skin of whales. The body of side speakers is compressed from both sides. The eyes are faceted, there is no carapace. There are wounds on all the chest legs. Abdominal legs are much smaller. They serve to speak 85. *Gammarus lacustris* is a species living in fresh water, and *G. ulex* and *G. balcanicus* are found in running water. Snails serve as the main food of the hunted fish. Therefore, in the development of local fisheries, the first breeding of stilts in water bodies gives good results

REFERENCES:

1. Bogliotti, Y. S., Wu, J., Vilarino, M., Okamura, D., Soto, D. A., Zhong, C., et al. (2018). Efficient generation of stably primed pluripotent embryonic stem cells from bovine blastocysts. *Proc. Natl. Acad. Sci. USA*.
2. Dogel V.A. *Obshaya protozoologiya*. Izd. AN SSSR Moskva-Leningrad, 1962.





3. Jizn jivotnix. V 6-ti tomax. Tom I-III Izd. «Prosvesheniye», Moskva, 1968-1969g.
4. Dogel V.A. Zoologiya bespozvonochnix. Moskva, «Visshaya shkola», 1981.
5. Zelikman A.L. Praktikum po zoologii bespozvonochnix. Moskva, «Visshaya shkola», 1969.

