



**DETERMINATION OF THE SPECIES COMPOSITION OF
MOLLUSCS AND DETERMINATION OF HELMINTH LARVAE
DAMAGE DETERMINATION METHODS**

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Abstract: *This article discusses methods for determining the species composition of terrestrial mollusks and their infestation with helminth larvae. The study examined the identification of mollusks based on conchological signs, their classification at the family, genus and species levels. Laboratory methods were also used to determine infestation with protostrongylid nematodes and trematode larvae. The results obtained are of great importance for mollusk ecology and parasitological studies.*

Keywords: *mollusks, conchological character, species composition, helminth larvae, protostrongylid nematode, trematode, laboratory method, ecology, parasitology.*

Introduction. The biodiversity of terrestrial mollusks is important not only from an ecological, but also from a medical and veterinary point of view. Because they are intermediate hosts of many helminths and participate in the spread of zoonotic diseases. Therefore, determining the species composition of mollusks and studying their infection with helminth larvae is one of the urgent scientific issues. This study analyzes the use of conchological signs in the identification of mollusks and effective methods for detecting helminth larvae in laboratory conditions. The results of this approach serve as an important scientific basis for developing ecological monitoring, parasitological studies, and disease prevention measures.

The species composition of terrestrial mollusks, which are intermediate hosts of helminths, is studied according to the method of A. Pazilov et al. [1; p. 12]. The study of a collection of mollusks collected in laboratory conditions begins with the determination of the species composition. This process begins with the study of the shell (conchological) signs of the mollusk. To study the signs of the shell, it must

first be correctly placed on the available object glass. For this, the embryonic part of the shell should be upwards and its mouth should be facing the observer (Fig. 2.2). After the shell is placed in the position shown in the picture, its dimensions (shell height, height and width of the shell mouth, small and large diameters, width of the last circle of the shell) are taken (Fig. 2.2 A). [2. – p. 75.]

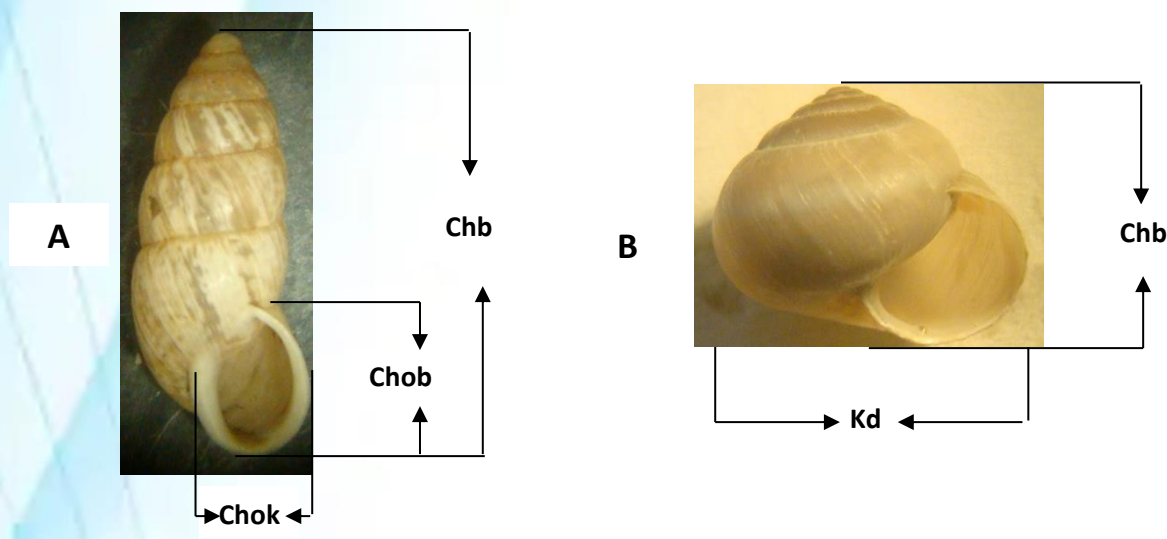


Figure 2.2 . Scheme for obtaining shell dimensions

Pseudonapaeus sogdian us (A) and In the case of *Angiomphalia regeliana* (B).

Note: $C h_b$ – shell height; $C h_{ob}$ – shell mouth height;

$C h_{ok}$ – width of the shell mouth; K_d – major diameter.

Once the shell dimensions are taken, the shell is examined for qualitative characteristics (shell color, sculpture, seams, the position of the last whorl of the shell relative to the mouth of the shell, and the structure of the umbilicus).

Mollusks are mainly identified by shell (conchological) features - shell structure, sculpture, shape of the mouth, color, shell size. In this case, the family to which the species belongs is first determined. For this, the definitions given in the “thesis” (numbers not in parentheses) and “antithesis” (numbers in parentheses) of the 13 mollusk families and 51 species included in this identifier are compared with the features of the mollusk under study. The conchological features of the mollusk must correspond to the features indicated in the thesis or antithesis.



For example, if we want to determine which family a mollusk belongs to , we first read the “thesis”. If the conchological signs there do not match the mollusk sign, then we move on to the “antithesis”. If the number at the end of the “thesis” or “antithesis” is replaced by the name of the mollusk family being searched for, then the mollusk family has been determined.

The signs "thesis" and "antithesis" are used to identify the genus and species of mollusks, just as they are used to identify the family.

Some families may have a single genus and a genus may have a single species, in which case the genus name is written under the family and the species name under the genus.

To correctly identify a mollusk species, it is necessary to have a good knowledge of the shell (conchological) characteristics. To do this, the characteristics indicated in the “thesis” and “antithesis” are carefully studied. To make it easy to compare the shell characteristics of a mollusk with the characteristics of the thesis or antithesis, color illustrations of each species are provided.

The method of JAAzimov et al. was used to determine whether mollusks were infected with protostrongylid nematode larvae.

In this method, 20-25 specimens of land mollusks are placed in a Petri dish and covered with a second dish. After 3-5 minutes, the mollusks begin to move along the wall of the dish. Using a magnifying glass, it is determined whether or not the mollusk is infected with protostrongylus larvae, depending on whether there are black dots on the sole of the moving mollusk.

The generally accepted compressor method is used to determine the presence of trematode larvae in mollusks. This method is convenient for detecting helminth larvae in various tissues and organs.

Conclusion . Laboratory under the circumstances mollusks anatomical structure and conchological signs studied , types composition Also, helminths were found intermediate boss as land mollusks importance studied , their trematode and nematode larvae with damage level special methods using clearly This is research results land mollusks ecological features study and parasitological in research



important importance has in the future biological diversity storage and zoonosis of diseases prevent to take measures working to go out service does .

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