

## Variability of the respiratory apparatus in *Bathydoris* Bergh, 1884 (Gastropoda, Doridida)

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The mantle complex of the primitive group of nudibranchiate molluscs, *Bathydoris*, was studied. The respiratory apparatus of few-gilled species is highly variable. The variability of other systems of organs was revealed. The evolution of the mantle complex of bathydoridids was also considered. A new genus *Prodoris* was described.

## Изменчивость дыхательного аппарата *Bathydoris* Bergh, 1884 (Gastropoda, Doridida)

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Исследован мантийный комплекс примитивной группы голожаберных моллюсков *Bathydoris*. Дыхательный аппарат маложаберных видов сильно варьирует. Резкой изменчивости подвержены и другие системы органов. Рассматривается эволюция мантийного комплекса батидоридид. Выделен новый род — *Prodoris* gen. nov.

Among gastropod molluscs the advanced nudibranchiate forms, including some orders classified previously in the order Nudibranchia, are of special interest. The formation of the Nudibranchia occurred as a result of detorsion, that is shifting of mantle complex along the right side of the body. In different phylogenetic lineages the initial stages of this process were similar, but the further destiny of mantle organs was different. The detorsion process reaches its maximum in Doridida-like forms, where the anus and nephroproct are in the terminal position. The shift of the mantle complex to the dorsal position and the polymerization of primary gill were significant in the evolution of Doridida [Minichev, 1970]. The first stages of formation of perianal corolla (characteristic of Doridina) can be traced in Bathydoridina, comprising a parallel phylogenetic lineage of Doridina [Baranetz, Minichev, 1994]. A few species of *Bathydoris* (*Bathydoris clavigera* Thiele, 1912, *B. obliquata* Odhner, 1934, *B. argentina* Kaiser, 1980, and *B. vio-*

*lacea* Baranetz, 1993) have retained this exceptional peculiarity in their structure, with an asymmetric mantle complex which has an arc of 1-3 gills on the right side of anal papilla. We will designate individuals with similar morphotype as few-gilled forms. Individuals having 4-5 asymmetrically arranged gills may also be included in this group. Beside gills, the mantle complex of lower representatives of *Bathydoris* has nephroproct on the right side of anus and the pore of secretory organ on the left side. The mantle gland was not found in many-gilled species of *Bathydoris*, which have a ring respiratory apparatus. The symmetric corollae of true doridids do not have multicellular gland structure. However, other groups similar to doridids (Corambidae and Okadaidae) possess multicellular mantle glands [Baba, 1937; Slavoshevskaja, 1971]. Possibly, the secretory organ in the mantle complex is homologous to hypobranchial gland of ancestral forms and is preserved only in primitive Doridida [Minichev, Baranetz, 1994].