

New taxa and the system of Recent representatives of the family Poromyidae (Bivalvia, Septibranchia, Poromyoidea)

E. M. KRYLOVA

*P.P. Shirshov Institute of Oceanology Russian Academy of Sciences,
Nakhimovski prospekt, 36, Moscow 117851, RUSSIA*

A new classification of Recent representatives of the family Poromyidae is proposed. Poromyidae are considered here to contain species with two or one paired groups of branchial apertures. On the basis of the structure of branchial apertures the family is divided into two subfamilies: Poromyinae Dall, 1886 and **Cetomyinae subfam. n.** Poromyinae have no interfilamentar connections in branchial apertures, whereas in **Cetomyinae** there are interfilamentar connections which make the apertures looking like a sieve. Poromyinae accommodate two genera — *Poromya* Forbes, 1844, with a granular shell surface and *Dermatomya* Dall, 1890, with a smooth shell surface. Both genera have two paired groups of pores. **Cetomyinae** include two genera — *Cetomya* Dall, 1889 and ***Lissomya* gen. nov.** *Cetomya* accommodates species with a granular shell surface and two or one paired groups of sieves. Molluscs with two pairs of sieves are placed in the subgenus *Cetomya*, whereas those with one pair — in *Perlaporomya* Scarlato et Starobogatov, 1983. The genus ***Lissomya*** is characterized by smooth shell surface and two paired groups of the sieves. The genus is erected for a single species, ***Lissomya rotundula* sp. nov.**, from the northern part of the Pacific (Aleutian Trench, 4860 m, 45th cruise of the R/V "Vityaz"). *L. rotundula* has semitransparent, rounded shell with a smooth, polished surface. In the septum, anterior group of branchial sieves consists of 5 apertures and 4 interfilamentar connections, whereas posterior one consists of 13 apertures and 4 interfilamentar connections. Around both siphons there is a common ring of 13 tentacles, including 12 lateral tentacles and 1 dorsal. There are four pairs of small papillae between the first five pairs of lateral tentacles.

Новый род и вид двустворчатых моллюсков и система современных представителей семейства Poromyidae (Bivalvia, Septibranchia, Poromyoidea)

Е. М. КРЫЛОВА

*Институт океанологии им. П.П. Ширшова РАН Москва,
Нахимовский проспект, 36, 117851*

Предложена новая система современных представителей семейства Poromyidae. В семейство включены моллюски с двумя или одной парами групп септальных отверстий. На основании строения септальных отверстий семейство разделено на два подсемейства: Poromyinae Dall, 1886 и **Cetomyinae subfam. nov.** Первое подсемейство характеризуется отсутствием межфиламентных перегородок в септальных отверстиях, у представителей второго межфиламентные перегородки развиты. Подсемейство Poromyinae включает два рода: *Poromya* Forbes, 1844, с гранулированной поверхностью раковины,

и *Dermatomya* Dall, 1890, с гладкой поверхностью. Оба рода имеют две пары групп отверстий в септе. Подсемейство **Cetomyiinae** включает роды *Cetomya* Dall, 1889 и *Lissomya* gen. nov. Род *Cetomya* объединяет поромиид с гранулированной поверхностью раковины и двумя или одной парами сетчатых отверстий. Моллюски с двумя парами отверстий отнесены к подроду *Cetomya*, а с одной парой — к подроду *Perlaporomya* Scarlato et Starobogatov, 1983. Род *Lissomya* характеризуется двумя парами сетчатых отверстий и гладкой поверхностью раковины. Он включает единственный вид *Lissomya rotundula* sp. nov., обнаруженный в сборах 45 рейса нис "Витязь" в северной части Тихого океана в Алеутском желобе на глубине 4860 м. *L. rotundula* имеет полупрозрачную, округлую раковину с гладкой блестящей поверхностью. В септе в переднем сетчатом поровом участке расположено 5 отверстий, пересеченных 4 межфиламентными перегородками, в заднем — 13 отверстий и 4 межфиламентных перегородки. Вокруг сифональных отверстий имеется общее кольцо из 13 щупалец, из которых 12 расположены латерально и одно — дорсально. Между первыми пятью парами латеральных щупалец находится по одной папилле.

The family Poromyidae accommodates carnivorous bivalves distributed all over the World Ocean, mainly in the bathyal and abyssal zones. Up to the present the systematics of the family has been the subject of discussion. In large collection of poromyids in my disposal, one species was found possessing a unique set of features. This species is separated as a new genus. In the present paper a new classification of Recent representatives of the family Poromyidae is proposed, accounting new data.

The family Poromyidae Dali, 1886 includes septibranchs with ovate, rounded or rhomboidal shell, lacking long rostrum, and with opisthodontic ligament without a lithodesma. According to the most recent classification of Poutiers and Bernard [1995], the family contains three Recent genera: *Poromya* Forbes, 1844, *Perlaporomya* Scarlato et Starobogatov, 1983 and *Cetoconcha* Dall, 1886. The genera are distinguished by the number of paired groups of the branchial apertures: *Poromya* has two paired groups, *Perlaporomya* — one, and *Cetoconcha* — three groups. The genus *Poromya* is divided into three subgenera: *Poromya*, *Cetomya* Dall, 1889 and *Dermatomya* Dall, 1889. The subgenera differ in the shell sculpture, the strength of hinge and the degree of sunkness of the ligament. The subgenus *Poromya* has a granular shell surface, well developed cardinal tooth in the right valve and the deeply sunken ligament. The subgenus *Cetomya* also has a granular shell surface, but the tooth is vestigial or absent, and the ligament is almost external. The subgenus *Dermatomya* is characterized by a smooth shell surface, strong cardinal tooth in the right valve and the deeply sunken ligament.

The above classification, as well as most of others [Odhner, 1960; Bernard, 1974; Allen, Morgan, 1981], ignores the structure of individual branchial apertures. The branchial ap-

ertures of poromyids can be represented either by simple slit-like pores between filaments or sieves formed as a result of presence of interfilamentar connections. In the classification of Poutiers and Bernard [1995] the genus *Poromya* accommodates species both with slit-like pores [e.g. *P. granulata* (Nyst et Westendorp, 1839)] and those with sieve-like pores [*P. tornata* (Jeffreys, 1876)].

Scarlato and Starobogatov [1983] proposed a classification of Poromyiformes, which takes into account the structure of individual branchial apertures. In their classification, the presence of interfilamentar connections was supposed to be more important taxonomically than the number of paired groups of the branchial apertures and conchological characters. According to Scarlato and Starobogatov, the presence of interfilamentar connections is a feature of the superfamily level, whereas the number of paired groups of the branchial apertures is a family-level feature and the shell sculpture distinguishes the genera. In their system, the order Poromyiformes Pelseneer, 1906 was divided into two superfamilies, *Dermatomyoidea* and *Poromyoidea*. *Dermatomyoidea* combine molluscs with the sieve-like septal apertures irrespective of the number of branchial apertures and the character of shell surface. *Poromyoidea* include molluscs with slit-like pores. The genus *Poromya* was divided into two genera falling in different superfamilies — *Ectorisma* Tate, 1892, uniting species with sieve-like pores, and *Poromya* Forbes, 1844, uniting species with slit-like pores. On the basis of the number of paired groups of branchial apertures, in the superfamily *Dermatomyoidea* two new families were distinguished — *Dermatomyidae* Scarlato et Starobogatov, 1983 and *Perlaporomyidae* Scarlato et Starobogatov, 1983. The family *Dermatomyidae* accommodates molluscs with two paired groups of sieve-like pores and