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## The family Margaritiferidae (Mollusca: Bivalvia) in Russia

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**ABSTRACT.** The taxonomic review of the family Margaritiferidae was based on shell and soft tissues morphology. Russian pear mussels are found to belong to 14 species in 3 genera: *Margaritifera* Schumacher, [1815], *Dahurinaia* Starobogatov, 1970 and *Kurilinaia* Zatravkin et Bogatov, 1988, which was originally described as a subgenus of the genus *Dahurinaia*. The genus *Margaritifera* is distributed in the Russian north-west and is represented by 3 species: *M. margaritifera* (L., 1758), *M. elongata* Lamarck, 1819 and *M. borealis* Westerlund, 1871. The two last ones are new to Russia. The genus *Dahurinaia* inhabits the Amur River drainage, southern Primorye Territory and the north-western part of Sakhalin Island. This genus includes 6 species, 3 of which are new to science: *D. dahurica* (Middendorff, 1850), *D. tiunovae* Bogatov et Zatravkin, 1988, *D. suifunensis* Moskvicheva, 1973, *D. komarovi* Bogatov, Prozorova et Starobogatov sp. nov., *D. ussuriensis* Bogatov, Prozorova et Starobogatov sp. nov., *D. prozorovae* Bogatov et Starobogatov sp. nov. The genus *Kurilinaia* occurs on the Kuril Archipelago, Kamchatka Peninsula and Sakhalin Is. (except the north-western regions of the island) and Hokkaido. The genus is represented by 5 species, 2 of which are new to science: *K. laevis* (Haas, 1910), *K. kurilensis* (Zatravkin et Starobogatov, 1984) (syn. *D. shigini* Zatravkin et Bogatov, 1987), *K. middendorffi* (Rosen, 1926), *K. kamchatica* Bogatov, Prozorova et Starobogatov sp. nov. и *K. zatravkini* Bogatov, Prozorova et Starobogatov sp. nov. Diagnoses of the new species and key to the genera and species of the Russian representatives of the family Margaritiferidae are presented.

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The family Margaritiferidae, pearl mussels, is a group of large freshwater Bivalvia (naiades) not rich in species and genera. It includes now three subfamilies, two of which are divided into 2 tribes each [Starobogatov, 1970]. More often, however, the family under discussion is not divided into subfamilies. The representatives of the family as generally accepted (subfamily Margaritiferinae sensu Starobogatov, 1970) are: *Ctenodesma* Simpson, 1900; *Ptychorhynchus* Simpson, 1900; *Heudeana* Frierison, 1922; *Schepmania* Haas, 1912; *Margaritanopsis* Haas, 1913; *Dahurinaia* Starobogatov, 1970; *Margaritifera* Schumacher, "1816"; *Cumberlandia*

Ortman, 1911; *Pseudunio* Haas, 1913; *Schalienaia* Starobogatov, 1970. The first six genera are distributed in the North and Southwest Pacific drainage area. The last four genera (*Margaritifera* — *Schalienaia*) are present in the Atlantic (including Barents and White seas) drainage area.

The group maintains some ancestral characters owing to its ecological preferences. Inhabitants of pure cold-water springs and small rivers saturated with oxygen, these rare mollusks are very susceptible to the deterioration of external conditions and they are in most regions included in Red Books, international or regional.

It should be mentioned that two competing names of the family type genus exist: *Margaritifera* Schumacher, "1816" and *Margaritana* Schumacher, 1817. The name *Margaritana* was widely used in the literature until 1940-1945 but then forced out by *Margaritifera*, which has priority. To resolve this problem with Margaritiferidae nomenclature, Opinion 495 of the International Commission on Zoological Nomenclature was issued [1957]. This Opinion reinstated the genus group name *Margaritifera* Schumacher, "1816" and rejected its junior objective synonym *Margaritana* Schumacher, 1817. The name *Margaritifera* Schumacher, "1816" is declared an invalid original spelling of *Margaritifera*. Unfortunately, the reference to the original publication of *Margaritifera* Schumacher in Opinion 495 contains two errors. Opinion 495 [1957] gives the volume number of the journal containing Schumacher's paper as 7, but this is not evident from the journal itself; no other author quotes a volume number. The second inaccuracy is that Schumacher's article was apparently published in 1815. The facts of the case have been supplied by D. Kadolsky and are listed below.

The volume does not bear a number, and the publication date of 1816 is only printed on the last page, i.e. p. 42. According to Gosch [1878: 217] the actual publication date of Schumacher's article is 1815, and the "last two years" in the journal title refer to 1813-1815. The latest date mentioned in the journal text is 1814 (p. 5, 6, 9, 30). Possibly the last part (pp. 31-42) of this volume was actually published later (i.e. 1816) than the first part, or the date of 1816 was printed in anticipation of the intended distribution date early in 1816, but actual publication