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## Systematic position of *Gerasimovcyclus lahuseni* nom. nov. (= *Fusus clathratus* Lahusen, 1883) (Gastropoda) from Jurassic deposits of European Russia

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**ABSTRACT.** Systematic position of the species “*Fusus clathratus*” Lahusen, 1883 is discussed. It is suggested to be placed in the tribe Eucyclini of the family Trochidae under a new name *Gerasimovcyclus lahuseni* nom. nov., because the original binomen is a junior homonym of *Fusus clathratus* Deshayes, 1835, *F. clathratus* J.C. Sowerby, 1836, and *F. clathratus* Dujardin, 1837.

This paper is devoted to specifying the taxonomic position of the species “*Fusus clathratus*”, which Lahusen [1883] described from the Oxfordian clays of the Ryazan Government. This species was rediscussed in two monographs of P.A. Gerasimov [1955, 1992]. In the first of them Gerasimov considered “*F. clathratus*” in the genus *Purpurina* d’Orbigny emend. Deslongchamps, 1860 (family Purpurinidae), and in the second one — in the genus *Petersia* Gemmellaro, 1869 (family Brachytremidae). Recently A. Kaim [2004] has assigned “*F. clathratus*” to the Recent genus *Turcica* A. Adams, 1854 (family Trochidae), and J. Gründel [2005] has introduced a new genus *Gerasimovcyclus* for which *Fusus clathratus* Lahusen was designated as type species. Gründel placed *Gerasimovcyclus* in the family Eucyclidae, because of its similarity to the genera *Eucycloidea* Hudleston, 1888 and *Eucycloscala* Cossmann, 1895, and due to the presence of characteristic archaeogastropod protoconch, which was studied in *Gerasimovcyclus mittai* Gründel, 2005. The generic diagnosis of Gründel was rather broad, which also affected the species composition of *Gerasimovcyclus*: the type species, *Eucyclus gjeliensis* Gerasimov, 1992, *Turcica gerasimovi* Kaim, 2004, *T. ogrodzieniecensis* Kaim, 2004, *T. wareni* Kaim, 2004, *Brachytrema lorioli* Schmidt, 1905, and *Gerasimovcyclus mittai* Gründel, 2005. Below I will comment on why some of these species are not included in *Gerasimovcyclus* as adopted here. I have abundant material on “*F. clathratus*”, and the results of its study are given below. Based on this study, more exact diagnosis and different specific compo-

sition of *Gerasimovcyclus* are suggested, and also detailed description of the type species is given. First of all, I offer a new name for “*F. clathratus*” — *Gerasimovcyclus lahuseni* nom. nov., because *Fusus clathratus* Lahusen, 1883 is a junior homonym of two species: *Fusus clathratus* J.C. Sowerby, 1836 [Sowerby, 1836: 344, pl. 18, fig. 19] from the Albian of England and *Fusus clathratus* Dujardin, 1837 [Dujardin, 1837: 294, pl. 20, fig. 6] from the Paleogene of France.

Now I will try to determine the systematic position of *Gerasimovcyclus lahuseni*, analyzing proposals of the previous researchers to place this species in different taxa: by Gerasimov in genera *Purpurina* (Purpurinidae) and *Petersia* (Brachytremidae), by Kaim in *Turcica* (Trochidae), by Gründel in a new genus *Gerasimovcyclus* (Trochidae).

Among Purpurinidae, *Gerasimovcyclus lahuseni* most resembles *Purpurina* (*Purpurina*) because of similarity in the shell outline. However, contrary to typical *Purpurina*, in *G. lahuseni* only the last whorl is keeled, and the keel passes along lower sutural margin; therefore it cannot be seen on the spire (Figs. 3D, E; 4F-H). Appearance of keel in *G. lahuseni* is connected to age-related strengthening of spiral ribs and nodes on later whorls, so the keel is absent on earlier whorls (Fig. 4A, B). In *Purpurina* s. s., the keel is well expressed on all whorls and passes much above the suture. *G. lahuseni* and *Purpurina* s. s. well differ in other characters of sculpture. On last whorls of *G. lahuseni* thorn-like nodes in places of crossing of plicae and ribs are developed, which never occur in *Purpurina*. Besides, the spiral sculpture of *G. lahuseni* is well developed above the keel, whereas in *Purpurina* it is reduced there. In basal part of the aperture of *G. lahuseni* there is a well developed triangular projection (Fig. 4D, E), but it is developed much more poorly in *Purpurina* s. s. [Guzhov, 2004, pl. 6, figs. 9a, 11b]. Finally, in *G. lahuseni* the nacreous layer (see the description and Figs. 4E, 5) is found, which excludes its relationship to Purpurinidae that belong to Littoriniformes, lacking a nacreous layer.