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Varia

Revision of Precambrian Acritarcha by Yankauskas et al. (Янкаускас, ред., 1989): implications for age determinations of the Rhodopian Supergroup

Finds of microfossils of varying structure and other specific features in Precambrian rocks of different regions of the world have been one of the most prominent advances in paleontoogy during the last thirty years. Microfossils (and rarely macroorganisms) identified include acritarcha, bacteria, cyanobacteria, algae, sponges, numerous problematica.

Scientific organizations of the former Soviet Union gathered an impressive amount of information that repeatedly (in 1974, 1984, and 1985) has been subject to re-consideration and revision aimed at clarification of classification principles and the problems of the nature and stratigraphic significance of the Precambrian fossils. An important step in the systematization of data on the Precambrian fossils, and amendments of previous taxonomic determinations, is the new book by Yankauskas et al. The amendments ehave mad important implications also for the stratigraphy of the Precambrian rocks of the Rhodope region.

The authors propose a preliminary version of united classification scheme of the Precambrian microfossils according to which the following morphological groups were identified: acritarcha, bacteria, cyanobacteria, inferred algae (green, red or brown), inferred sponges, large problematic remains and calcareous algae. A general list is made including 83 rejected generic taxa which are accepted as subjectively identified, as junior synonyms or invalid for other reasons.

According to the examination made by the specialists, the acritarchs are the most completely studied among the Precambrian microfossils for the time being.

The investigations for searching microfossils within the Precambrian rocks in Bulgaria started in 1977 in the Central Rhodopes. The first results were successful (Кожухаров, Тимофеев, 1979), and that stimulated towards expanding the investigations to the Western Rhodopes (Кожухаров, Тимофеев, 1989), the Central and South Pirin (Кожухаров, Конзалова, 1990) and Northern Greece (Kozhoukharov, 1994a; 1994b, in press).

During this whole period of rime the collected samples taken from the designated regions have been sent to be analyzed by Timofeev at the Institute of Geology and Geochronology of the Precambrian, in Saint Petersburg, Russia, to the Kola Scientific Center, the town of Apatity by O. Chapina and V. Melezhik and to the Institute of Geology and Geotechnics in Prague, Czech by M. Konzalova. When identifying the microfossils the subjected to revision Precambrian generic taxa were used, therefore we have to apply the corrections made mainly for Acritarcha, to which most of the microfossils found and identified in Bulgaria belong.

Among the identified up to now microfossils within the Precambrian rocks in Bulgaria the following genera were rejected after the revision: *Kildinella* Timofeev, 1966; *Protosphaeridium* Timofeev, 1966; *Scaphyta* Timofeev, 1976 and *Trachysphaeridium* Timofeev, 1959, which appear as junior synonyms of previously reported genera, and *Origmatosphaeridium* Timofeev, 1959 and *Trematosphaeridium* Timofeev, 1959 which are not definitely described and figured.

With regard to the diagnostic features the rejected genera correspond to different species belonging to the retained genera. The following genera are assigned to Leiosphaeridia: *Kildinella, Protosphaeridium, Trematosphaeridium* and *Trachysphaeridium,* whereas *Origmatosphaeridium* and *Protosphaeridium flexuosum* are assigned to *Spumosina* and finally *Phycomicetes* is assigned to *Caudosphaera.*

Leiosphaeridia, Pterospermopsimorpha, Stictosphaeridium and *Synsphaeridium* are being retained.

The Precambrian genera and species of microfossils identified and known up to now within the rocks of the Rhodope massif on Bulgarian and Greek territory will be considered in a further work complying with their species belonging to the genera they were assigned to.

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