



Cretaceous disciniscan brachiopods

Radwańska, U. & Radwański, A. 1994. The topmost Cretaceous disciniscan brachiopods, *Discinisca* (*Arquinisca* subgen. n.) *vistulae* sp. n., from the Middle Vistula Valley, Central Poland. — *Acta Geologica Polonica* 44, 3–4, 251–260, 1 plate and 1 text-figure.

The inarticulate brachiopod *Discinisca*, being fairly common in the Tertiary deposits and Recent waters, is poorly represented in the Mesozoic. Cretaceous forms have been up till now practically unknown. Thus, any new data about *Discinisca* from strata older than the Tertiary, especially with the paleobiological interpretation and environmental context, is interesting for a paleontologist. The authors attributed the investigated material to the new species and subgenus of *Discinisca*, *D. (Arquinisca) vistulae*. It has been identified in the siliceous marls of the latest Maastrichtian age from the Nasilów section, Central Poland. Though limited to several specimens of dorsal valves, the material is well preserved and allows a detailed description, extending our knowledge of this genus. The authors described not only the morphology of the outer surface of the shell (its inner surface not being available for the study) in great detail, but they also discussed the taxonomic problems of fossil species attributed to this genus. They emphasize that the usually very limited number of specimens of all fossil *Discinisca*, as well as very low information content in their morphology cause serious problems in taxonomic distinctions. They also consider some aspects of paleobiology of the species, for instance the relation of the number of condensed growth lines to ontogenetic age, and valve shapes to preferred substrate. Extremely shallow-water environments during deposition of the uppermost Maastrichtian strata of Nasilów are, according to them, suggested by the ecological requirements of the extant *Discinisca* species and the associated invertebrates.

The authors followed the classification and spelling of the *Treatise on Invertebrate Paleontology* (Williams *et al.* 1965). However, the phylum has been recently subdivided into three classes (Lingulata, Inarticulata, Articulata) (see Harper *et al.* 1993), and according to the ICZN recommendation '-oidea' should be added to the superfamily stems as the preferred suffix (Ride *et al.* 1985).

Remarkably, in a recent paper by Ivanov (1995) a new invertebrate phylum [sic] has been proposed for small, phosphatic shelly fossils from the Cretaceous and Paleogene strata of Russia, which closely resemble those described in the reviewed paper. The similarity is of such a degree that one may even suppose that they are conspecific with *Discinisca (Arquinisca) vistulae*.

References

- Harper, D.A.T., Brunton, C.H.C., Cocks, L.R.M., Copper, P., Doyle, E.N., Jeffrey, A.L., Owen, E.F., Parkes, M.A., Popov, L.E., & Prosser, C.D. 1993. Brachiopoda. In: M.J. Benton (ed.), *The Fossil Record 2*, 427–462. Chapman & Hall, London.
- Ivanov, A.V. 1995. Marinaculata, a new phylum of animals from the Cretaceous and Paleogene [in Russian]. — *Paleontologičeskij Žurnal* 2, 14–20.
- Ride, W.D.L., Sabrosky, C.W., Bernardi, G., & Melville, R.V. (eds) 1985. *International code of zoological nomenclature* (3rd edn), 338 pp. University of California Press, London, Berkeley and Los Angeles.
- Williams, A., *et al.* 1965. Part H. Brachiopoda. In: R.C. Moore (ed.), *Treatise on Invertebrate Paleontology*, 927 pp. Geological Society of America and University of Kansas Press, Lawrence, Kansas.