

## THE ORIGIN AND EVOLUTION OF THE FAMILY DESHAYESITIDAE STOYANOW, 1949

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The family *Deshayesitidae* represents the important stage of the Early Cretaceous ammonite evolution. The subdivision of the Lower Aptian deposits practically in all the continents of the Earth is based on interrelations within some genera and species associations of this family. Morphology of the shell and evolution of suture of the European, Caucasian and Turkmenian deshayesitids have been revised. As a result, we propose the new concept of some generic taxa of the Deshayesitidae. *Deshayesites* Kasansky, 1914 - rather compressed, with flat or slightly convex flanks, subtriangular sections with a broad arched venter, strong ribs, sigmoidal primaries and branching or intercalated secondaries (1 or 2). No distinct tubercules. Suture formula -  $VU1^2 : I^1 D$ ; lobes I,  $I^2$  - on the flanks. Type-species: *Ammonites deshayesi* (Leymerie in d'Orbigny, 1842), Lower Aptian, France (Paris Basin). It includes about 40 species. *Paradeshayesites* Kemper, 1967 - different size of shell, very involute, whorls high, triangulate with flat flanks and arched venter; ribs dense, fine with bullates in the base and bundles, primaries bifurcate and trifurcate, secondaries 4 to 7-9. Suture formula -  $VU1^2 I^3 : I^1 D$ , lobes I,  $I^2$  - on the flanks. Type-species: *Hoplites laeviusculus* (von Koenen, 1902), Lower Aptian, tenuicostatus Zone, North-West Germany. It includes about 20 species. *Obsoleticeras* Bogdanova & I.Mikhailova, gen. nov. - high, quickly rising whorls with oval sections, early whorls with rare ribs, later with loosening of sculpture. Suture formula with broad shallow elements, lobes I,  $I^2$  - on the flanks. Type-species: *Prodeshayesites obsoletus* Casey, 1964, Lower Aptian, fissicostatus Zone, obsoletus Subzone, England (Surrey). It includes 5 species.

On the whole, the Deshayesitidae consists of the genera: *Turkmeniceras* Tovbina, 1962, *Deshayesites* Kasansky, 1914, *Paradeshayesites* Kemper, 1967, *Obsoleticeras* gen. nov., *Dufrenoyia* (Burckhardt Ms) Kilian & Reboul, 1915, *Burckhardtites* Humphrey, 1949 and probably, *Neodeshayesites* Casey, 1964 and *Kuntziella* Collignon, 1962. The type of suture-development of the last two genera is still unknown.

The Deshayesitidae derived from the Heteroceratidae. The Deshayesitidae has unsteady quinque-lobate primasuture -  $VUU^1 ID$ . To the end of the first whorl lobe  $U^1$  disappeared and the suture formula is  $VUID$ . It is the same as in the adult Heteroceratidae. Then the fifth lobe arose on the second whorl, but it is the new lobe  $I^1$  in the saddle  $I/D$ . In the evolution of the Deshayesitidae the umbilical part of the shell began to stretch out with involution of whorls and the umbilical part of suture began to incise:  $VUU^1 ID - VUID - VUI : I^1 D - VU1^2 : I^1 D - VU1^2 I^3 : I^1 D$ .