

Classification of fossil eggshells of amniotic vertebrates

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Fossil avian and reptilian eggs and eggshells, from the Cretaceous of Mongolia and USSR (Kazakhstan, Zaisan basin) as well as samples of dinosaurian and the Eocene avian eggshells from USA, China, France and Argentina were studied. Methodological, terminological and biomineralization aspects of eggshell structure are discussed. Considered are different classifications of eggshell according to the structural levels of eggshell matter organization (texture, general histostructure, superficial morphology). Basic types, morphotypes, types of pore system and types of surface ornamentation are the main structural categories employed in the systematic description of fossil material. About 18 groups of fossil eggshells referred to turtles, geckoes, crocodiles, and to 14 "families" or dinosaur and bird oological remains are described. Their composition, occurrence, paleobiology and systematics are shortly presented.

Key words: fossil and Recent eggs, eggshells, Reptilia, Aves parataxonomy, classification, paleobiology.

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