Archaeopteryx and its paleoecology

Max K. Hecht and Samuel Tarsitano

The various reptilian relationships of Archaeopteryx are reviewed. Crocodilian and theropod ancestry for Archaeopteryx and therefore birds is rejected because of the specialized morphology of both these taxa. In contrast the known morphology of certain thecodonts, provides the necessary features from which the primitive avian morphology of Archaeopteryx can be derived. The origin of flight in birds is discussed within the context of the ecological setting of the Solnhofen environment. The primitive level of the flight morphology of Archaeopteryx s used to interpret the flight capabilities of these early birds.

Key words: Archaeopteryx, phylogenetic inference, flight.

This is an open-access article distributed under the terms of the Creative Commons Attribution License (for details please see creativecommons.org), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.