Placental nature of the alleged marsupial from the Cretaceous of Madagascar

Alexander O. Averianov, J. David Archibald, and Thomas Martin
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A recently (Krause 2001) reported fragmentary mammalian lower molar (University of Antananarivo, UA 8699) from the Late Cretaceous (Maastrichtian) of Madagascar, was attributed to Marsupialia, for which far reaching paleobiogeographical conclusions were made. The five characters used to identify UA 8699 as a marsupial are not exclusive to Late Cretaceous marsupials, but are found also in some placental mammals, notably in Late Cretaceous ungulatomorph zhelestids, known from various Upper Cretaceous strata in Asia, Europe, and NorthAmerica (Nessov et al. 1998). Identification of UA 8699 as a zhelestid placental is in keeping with myriad other faunal similarities between Europe and Africa/Madagascar.

Alexander O. Averianov [sasha@AA1923.spb.edu], Zoological Institute, Russian Academy ofSciences, Universitetskaya nab. 1, Saint Petersburg 199034, Russia; J. David Archibald [darchibald@sunstroke.sdsu.edu], Department of Biology, San Diego State University, San Diego, California 92182–4614, USA; Thomas Martin [tmartin@zedat.fu–berlin.de], Institut für Geologische Wissenschaften, Fachrichtung Paläontologie, Freie Universität, Malterserstrasse 74–100, D–12249 Berlin, Germany.

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