

New skeleton from the early Oligocene of Germany indicates a stem-group position of diomedeoidid birds

Vanesa L. De Pietri, Jean-Pierre Berger, Claudius Pirkenseer, Laureline Scherler, and Gerald Mayr
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We report a new specimen of the extinct procellariiform species *Diomedeoides brodkorbi* (Aves, Diomedeoididae) from the early Oligocene (Rupelian) of Rheinweiler in southwestern Germany. The well-preserved partial skeleton allows the recognition and reassessment of new osteological details that bear on the phylogenetic affinities of diomedeoidids. The presence on the coracoid of a deeply excavated, cup-like facies articularis for the scapula suggests a stem group position of the Diomedeoididae within Procellariiformes, because this trait also occurs in stem-group representatives of several avian groups, as well as in Mesozoic non-neornithine birds, and is a plesiomorphic character. We hypothesize that the similarities of *Diomedeoides* to extant southern storm-petrels (Oceanitinae), such as the long mandibular symphysis, the small processus supracondylaris dorsalis and the long legs are plesiomorphic for Procellariiformes.

Key words: Aves, Diomedeoididae, phylogeny, stem-group, Oligocene, Rupelian, Upper Rhine Graben, Germany.

Vanesa L. De Pietri [vanesa.depietri@nmbe.ch], Naturhistorisches Museum der Buergergemeinde Bern, Bernastrasse 15, CH-3005 Bern, Switzerland;
Jean-Pierre Berger [jean-pierre.berger@unifr.ch], Claudius Pirkenseer [claudiusmarius.pirkenseer@unifr.ch], and Laureline Scherler [laureline.scherler@unifr.ch], Dept. Geosciences-Earth Sciences, Chemin du Musée 6, University Fribourg, CH-1700 Fribourg, Switzerland; Gerald Mayr [Gerald.Mayr@senckenberg.de], Forschungsinstitut Senckenberg, Sektion Ornithologie, Senckenberganlage 25, 60325 Frankfurt am Main, Germany.

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