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

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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.

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