Australus, a New Genus for Gallinula disneyi (Aves: Rallidae) and a Description of a New Species from Oligo-Miocene Deposits at Riversleigh, Northwestern Queensland, Australia

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ABSTRACT. Gallinula disneyi Boles, 2005, was based on Late Oligocene-Middle Miocene (c. 25–15 Ma) fossils from Riversleigh World Heritage Property in Boodjamulla (Lawn Hill) National Park, northwestern Queensland, Australia. If the generic assignment is correct, this species would be the earliest known crown group representative of Rallidae. We have therefore reassessed the phylogenetic relationships of this rail using both the original and newly recovered material. It is found to be a relatively basal rallid with some affinity to Porphyrio, and the new genus Australus is erected for this taxon. A second species in the genus is described from Middle Miocene sites at Riversleigh World Heritage Property. A third rallid, smaller than either species of Australus, is indicated by a mandible fragment, also from Riversleigh, but is not named. These rails are the only gruiforms known from Riversleigh and, with a single species of stork, are the only small non-passerine ground-birds known from these faunas.


Rails (Rallidae: Gruiformes) comprise a cosmopolitan group, occurring on all continents except Antarctica. There are 140 or so living species, with another 500–1600 species hypothesized to have occurred on Pacific islands at the time of human contact (Steadman, 2006), whose extinction was mainly through anthropogenic causes. A significant number of living rails are flightless, as were the vast majority of recently extinct forms (e.g., Olson, 1977; Taylor, 1998; Steadman, 2006). Almost all non-volant species are, or were, restricted to small islands. Several Australasian taxa from larger landmasses were significant among flightless rails: the Weka Gallirallus australis (Sparrman, 1786) from both North and South islands of New Zealand, the takahe Porphyrio mantelli (Owen, 1848) and P. hochstetteri (A.B. Meyer, 1883) from the North and South Islands of New Zealand, respectively) and the Tasmanian Native-hen Gallinula (Tribonyx) mortierii (DuBus, 1840) of Tasmania, also present on the eastern Australian continent into the Holocene (Baird, 1984; Worthy & Holdaway, 2002).

Within Gallinula, the extinct G. hodgenorum (Scarlett,