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A REVIEW OF THE EXTINCT RAILS OF THE NEW ZEALAND REGION (AVES: RALLIDAE)

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ABSTRACT

1. The subfossil rail *Rallus hodgeni*, which in the past has been referred to its own genus (*Pyramida*) and also to *Capellirallus*, is shown to be a flightless derivative of the Australian gallinules of the subgenus *Tribonyx* and becomes *Gallinula* (*Tribonyx*) *hodgeni*.

2. *Gallirallus hartreei* is considered to be a synonym of *Gallinula* (*Tribonyx*) *hodgeni*.

3. The very distinctive subfossil rail *Capellirallus karamu*, known so far only from the North Island, is further described and illustrated, and its possible relationships discussed.

4. The genus *Nesophalaris*, used for the giant extinct coots of the Chatham Islands (*chathamensis*) and New Zealand (*prisca*), is considered a synonym of *Fulica* *F. chathamensis* and *F. prisca* are both shown to have been flightless and of nearly the same size. A lectotype is designated for *F. prisca* and this taxon is maintained as a subspecies of *F. chathamensis*, distinguished on the basis of characters of the humerus.

5. The distribution and relationships of the Chatham Island rails *Gallirallus* (*"Nesolimnas"*) *dieffenbachii*, *G.* (*"Cabalus"*) *modestus*, and *Diaphorapteryx hawkinsi* are briefly discussed.

6. Doubt is cast upon the validity of *Gallirallus minor*, a subfossil species that has never been satisfactorily characterized.

INTRODUCTION

In the rich subfossil record of birds in the late Quaternary of New Zealand and the Chatham Islands, are found a number of interesting species of extinct rails. Recent visits to New Zealand museums have enabled me to examine specimens of these forms first-hand and to discover some previously unknown and undescribed elements. The results of these studies are presented here as part of a review of the living and fossil taxa of the family Rallidae. The taxonomy used will follow that of Olson (1973b). I have purposely excluded from the present study the fascinating genus *Aptornis*, as it is not a rail at all and will be treated in a later paper on the Aptornithidae.

THE IDENTITY OF **Rallus hodgeni** SCARLETT, 1955, AND **Gallirallus hartreei** SCARLETT, 1970

Scarlett (1955b) described a small rail from Pyramid Valley Swamp in the South Island, from pelves, leg, and wing bones, designating an incomplete pelvis (CM Av 6197) as the holotype. He determined that *hodgeni* was larger than *Capellirallus karamu* Falla, 1954, a

peculiar, long-billed rail from cave deposits in the North Island, and provisionally placed *hodgeni* "in the broad genus *Rallus* until the skull is found and its generic affinities are ascertainable."

Later in the same year, Oliver (1955) studied the type material of *hodgeni* and concluded that it belonged to a gallinule "apparently . . . closely allied to *Tribonyx*." For the species he created the monotypic genus *Pyramida*. The spelling *Pyramidia* also appeared in the same work, evidently through a printer's error since in Oliver's original typescript it was *Pyramida* (MS in NMNZ). The spelling was restricted to *Pyramida* by Dawson (1957).

Scarlett (1970b) reviewed new material of *hodgeni* and of *Capellirallus karamu,* listing many new localities for both and showing that *hodgeni* occurred rather commonly in both the North and South Islands. He concluded that *hodgeni* and *karamu,* although different in size, were congeneric, and placed *hodgeni* in the genus *Capellirallus*. This treatment is followed in the official checklist of New Zealand birds (Kinsky 1970). However, until now the skull and bill of *hodgeni* have been unknown, except for two posterior portions of crania, and there were further difficulties in that some of the elements Scarlett ascribed to *hodgeni* were from other species. Furthermore, those characters of the pelvis that Oliver (1955) used to ally *hodgeni* with the gallinules are not shared with *Capellirallus karamu*—a fact that was not brought out by Scarlett (1970b).

In examining some partially sorted subfossil material from the Martinborough Caves in the North Island (see Yaldwyn 1956, 1958, for descriptions of these localities) at the National Museum of New Zealand, I found several crania, rostra, mandibles, and sterna (NMNZ S. 967-973 and unregistered material) of a small gallinule. In this same collection are limb elements (S. 974-785 and unreg. mat.) that are identical to the paratypes of *hodgeni* from Pyramid Valley. This, coupled with the fact that the pelvis of *hodgeni* shows characters typical of some of the gallinules, leaves little doubt that the crania and sterna from Martinborough are referable to *hodgeni*. These elements prove conclusively that *hodgeni* is a flightless derivative of the Australian subgenus *Tribonyx* in the genus *Gallinula,* and is not related to *Capellirallus*. Below, *hodgeni* is redescribed and compared with the forms of *Tribonyx*. The subgeneric name will be used throughout to emphasize the Australian relationships of *hodgeni*. The comparison of *hodgeni* with *Capellirallus* in the plates and tables is for economy of space and for the future convenience of those wishing to identify New Zealand fossil material and is not intended to imply an affinity between the two. Discussion of their many differences may be found in the account of *Capellirallus*.

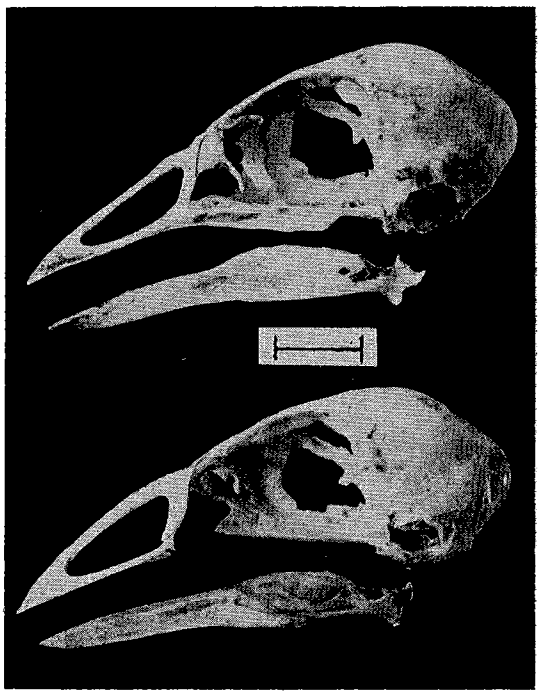

Fig. 1. Top to bottom: lateral view of skull and mandible of *Tribonyx ventralis* (MVZ 143365), *T. hodgeni* (NMNZ S 967; S 969). Scale 10 mm.

Tribonyx hodgeni is closest in size to, although somewhat smaller than, the Black-tailed Water Hen (Native Hen), *T. ventralis* (Gould), of Australia (Table 1) and is therefore much smaller than the flightless Tasmanian Water Hen, *T. mortierii* Du Bus. The extremely short, wide bill, and particularly the very short premaxilla (Figs 1 and 2) is a marked characteristic of the subgenus *Tribonyx* and demonstrates that *hodgeni* belongs with that group rather than with the typical moorhens of the subgenus *Gallinula*. Most of the skull dimensions of *T. hodgeni* are slightly smaller than those of *T. ventralis,* except for the width of