

**Black-necked Screamers seen feeding a chick.**—Two of a captive trio of Black-necked Screamers (*Chauna chavaria*) presently in the bird collection at the New York Zoological Park nested during mid-June 1969 and produced a single chick. The nest was a beaten down clump of ornamental grass (*Miscanthus sinensis*). The screamers added small sticks and leaves they carried to the site in their beaks. Hatched on 2 August, the young screamer remained at the nest site for 3 full days, closely attended by both parents and the odd female. Behavior during this period gave rise to a strong suspicion that at least one of them was feeding the chick by regurgitation. This point is debatable, but after the young bird left the nest we saw the parents actually pick up food in their beaks and place it in the chick's open gape. On the afternoon of 7 August we watched the male of the breeding pair select turkey pellets, a commercially prepared poultry ration, from an exhibit food contained and feed the chick in just this manner as it floated near him in a shallow waterway; on 12 August the same parent fed the chick popcorn and pieces of grass in the same way. To the authors' knowledge this behavior is unrecorded for screamers and rare for any member of the Anseriformes. Johnsgard (Wildfowl Trust, 12th Ann. Rept., 1961, pp. 99–100) reports very similar bill-to-bill feeding of goslings by the parent Magpie Goose (*Anseranas semipalmata*).—JOSEPH BELL, DONALD BRUNING, and ANDREW WINNEGAR, *New York Zoological Park, Bronx, New York 10460*.

**The relationships of *Porzana flaviventer*.**—A lack of agreement as to the generic characters of rails has resulted in many genera that are either poorly defined, monotypic, or composed of groups of unrelated species. Seldom has any taxonomic treatment of this family resulted in what I believe to be natural groupings. Decisions here are rendered difficult because of the general homogeneity of rails. Recently, progress was made when Benson and Winterbottom (1968) drew attention to the similarity of the South American *Porzana albicollis* to *Crecopsis egregia* of Africa, and suggested that the two species be considered congeneric. They chose to remove *albicollis* from *Porzana* and place it in *Crecopsis*, rather than merging the two genera. Wolters (1969) points out that *Mustelirallus* Bonaparte antedates *Crecopsis* Sharpe and should be used if *albicollis* is included with *egregia*.

It has not been suggested recently that the delicate little Neotropical rail, *Porzana flaviventer*, be placed in a genus other than *Porzana*, although it does not closely resemble any of the species of that assemblage. Actually it is not clear how this species has failed being placed in *Laterallus*, a genus that seems to have become a convenient receptacle for nearly all the small American rails, regardless of their other characters. For instance, certain species of *Laterallus* resemble typical *Porzana* much more than does *flaviventer*. Ridgway (1920) apparently was not satisfied that *flaviventer* was intimately allied to the other *Porzana* species and erected for it the monotypic genus *Hapalocrex*, based mainly on the proportions of the alula and toes. Unfortunately, as Wetmore and Swales (1931) point out, the characters Ridgway used for *Hapalocrex* are not diagnostic when comparison is made with other species of *Porzana*. Ridgway and Friedmann (1941: 134–135) maintain *Hapalocrex* as a subgenus of *Porzana*, describe its characters in detail, and suggest no other relationship. Examination of various species of rails discloses that the closest relative of *P. flaviventer* lies outside the genus *Porzana* as it is now defined.

*Poliolimnas* is a monotypic genus first delimited by Sharpe (1893) for *Porphyrio cinereus* Vieillot. Sharpe's brief diagnosis (also based on proportions of the wings and feet) does not adequately distinguish *Poliolimnas* from *Porzana*, and some subsequent

authors have not recognized *Poliolimnas* (e.g. Chasen, 1935). However Peters (1934) did so and separated it from *Porzana* by interposing several other genera.

Descriptions of both *Porzana flaviventer* and *Poliolimnas cinereus*, often refer to the long proportions of the toes. I determined the average ratio of tarsus to middle toe with claw for the following species: *Poliolimnas cinereus*, 0.81; *Porzana flaviventer*, 0.70; *P. carolina*, 0.80; *P. pusilla*, 0.75; *P. porzana*, 0.83; *P. albicollis*, 0.88; *P. fusca*, 0.83; *P. bicolor*, 0.90; *P. tabuensis*, 0.84. Thus although *Porzana flaviventer* has proportionately longer toes than the other species examined, those of *Poliolimnas* are approached or exceeded by several species of *Porzana*. In any case I do not feel that the

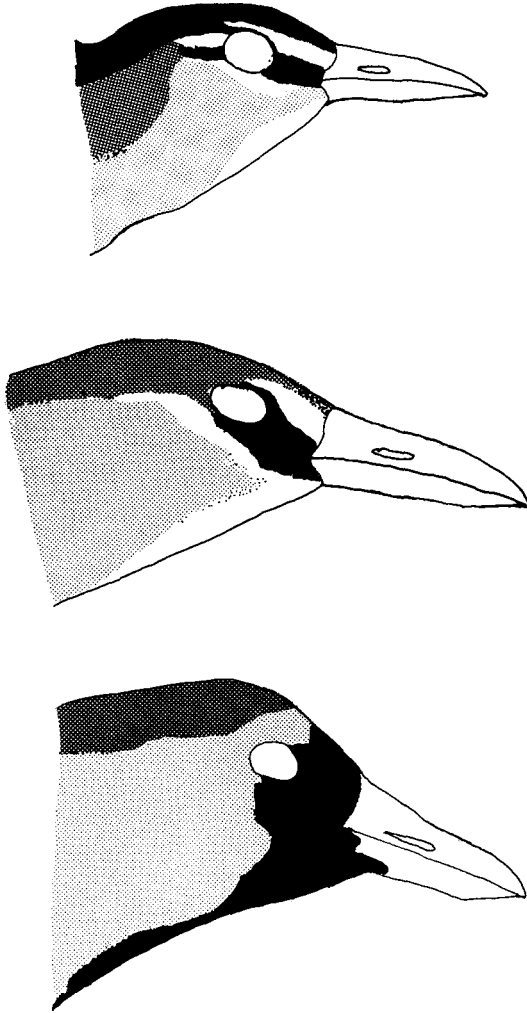


Figure 1. Top to bottom: *Porzana flaviventer*, *Poliolimnas cinereus*, *Porzana carolina*.

character has great taxonomic value. I do not suggest that *Poliolimnas cinereus* and *Porzana flaviventer* be included with *Porzana*, as these two species share characters that render them distinct from *Porzana* and also serve to demonstrate relationship between the two. The heads of *Poliolimnas cinereus*, *Porzana flaviventer*, and a typical *Porzana* (*carolina*) are contrasted in Figure 1. The bills of the former two species differ in shape and proportions from the remainder of *Porzana*. In lateral view, the culmen and the top of the head are in practically the same plane, giving both species a decidedly flat-headed appearance, whereas in *Porzana* proper, the culmen is depressed above the nostril and ascends more sharply to the forehead. Further, the pattern of facial stripes in *Porzana flaviventer* and *Poliolimnas cinereus* is unique among rails and stands out in comparison with the other *Porzana*-like forms. *Poliolimnas* lacks the barred flanks and longitudinal white dorsal markings of *Porzana flaviventer*, but this is probably not of great importance. Species lacking barred flanks and/or dorsal markings may be found in genera that possess both characters (e.g. *Porzana*, *Rallus*).

Therefore I contend that *Poliolimnas cinereus* and *Porzana flaviventer* are congeneric, near but separate from *Porzana*. The genus *Poliolimnas* can then be redefined as follows:

*Poliolimnas* Sharpe 1893

Very small to medium Rallidae, near *Porzana*. Bill to angle of gonys nearly uniform in depth; culmen not depressed above nostril, nearly straight to anterior of nostril thence gradually decurved to tip, not elevated basally but in an almost continuous line with top of head. Facial pattern consisting of distinct light superciliary stripe (disjunct in *flaviventer*), light malar stripe, and an intervening dark stripe through the eye. Type, *Porphyrio cinereus* Vieillot. Species: *Poliolimnas cinereus* (Vieillot) and *Poliolimnas flaviventer* (Boddaert).

Examination of skeletons of *Poliolimnas cinereus*, *P. flaviventer*, *Porzana carolina*, *P. pusilla*, *P. fusca*, *P. albicollis*, and *P. tabuensis* disclosed no major distinctive qualitative

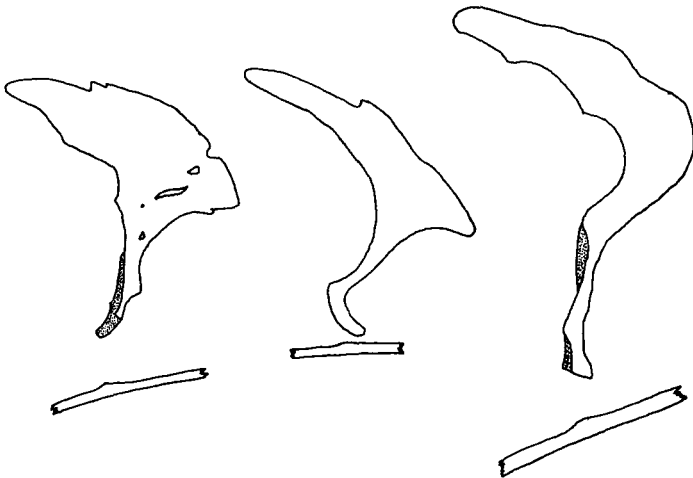


Figure 2. Right lacrimal and portion of jugal bar to show relative position. Left to right: *Poliolimnas cinereus*, USNM 431404; *Porzana flaviventer*, USNM 350498; *Porzana carolina*, USNM 431877.

characters that distinguish *Poliolimnas* from *Porzana*. The bicipital crest of the humerus is notched where it joins the shaft in *cinereus* and *flaviventer* and tapers gradually into the shaft in the other species of *Porzana*. The palatine ends of the pterygoids in *cinereus* are more expanded than the other species examined. As most skeletal elements of rails are quite similar in appearance even between genera, it was of interest to note the extreme variability of the lacrimal bones. The lacrimals of *Poliolimnas cinereus*, *P. flaviventer* and *Porzana carolina* bear no resemblance to each other (Figure 2) nor do any of these resemble the lacrimal of *P. porzana* illustrated by Lowe (1928). Cracraft (1968) gave little value to the lacrimal as a taxonomic character at the specific or generic level and I would hesitate to assign any significance to it here without a detailed study of its variation and function in the Rallidae.

The ranges of the two species of *Poliolimnas* are widely separated. *P. cinereus* is widespread over the Australo-Malaysian region and many Pacific islands, while *P. flaviventer* ranges through Central and South America and the West Indies. This is not an insurmountable zoogeographical anomaly. Several genera of rails are nearly cosmopolitan in distribution and the family is an ancient one containing many members that are endowed with great powers of dispersal in spite of their usually weak flying ability. The distribution of *Poliolimnas* points out a possible alliance between the faunas of the Australian and Neotropical realms. How and when such a dispersal was effected remains problematical.

Alexander Wetmore and F. S. L. Williamson made helpful comments on the manuscript. Richard L. Zusi of the United States National Museum kindly provided for the use of specimens. R. W. Storer and Pierce Brodkorb made skeletons of *P. flaviventer* available to me. I would like to thank J. P. Angle for technical assistance in preparing the first figure.

#### LITERATURE CITED

- BENSON, C. W., AND J. M. WINTERBOTTOM. 1968. The relationship of the Striped Crake *Crexopsis egregia* (Peters) and the White-throated Crake *Porzana albicollis* (Vieillot). Ostrich, 39: 177-179.
- CHASEN, F. N. 1935. A handlist of Malaysian birds. Bull. Raffles Mus., No. 11.
- CRACRAFT, J. 1968. The lacrimal-ectethmoid bone complex in birds: a single character analysis. Amer. Midland Naturalist, 80: 316-359.
- LOWE, P. R. 1928. A description of *Atlantisia rogersi*, the diminutive and flightless rail of Inaccessible Island (southern Atlantic) with some notes on flightless rails. Ibis, 4, 12th Ser.: 99-131.
- PETERS, J. L. 1934. Check-list of birds of the world, vol. 2. Cambridge, Massachusetts, Harvard Univ. Press.
- RIDGWAY, R. 1920. Diagnoses of some new genera of birds. Smithsonian Misc. Coll., 72: 3.
- RIDGWAY, R., AND H. FRIEDMANN. 1941. Birds of North and Middle America, part 9. U. S. Natl. Mus., Bull. 50.
- SHARPE, R. B. 1893. Bull. Brit. Ornithol. Club, 1: 28.
- WETMORE, A., AND B. H. SWALES. 1931. The birds of Haiti and the Dominican Republic. U. S. Natl. Mus., Bull. 155.
- WOLTERS, H. E. 1969. Generic name of two rails. Ostrich, 40: 30.

STORRS L. OLSON, *Department of Pathobiology, The Johns Hopkins University, School of Hygiene and Public Health, Baltimore, Maryland 21205.*