



FIG. 7. Diagram of hypothetical phylogeny of the Rallidae. Distances reflect the dictates of space rather than phylogenetic distance. Several genera are placed only very provisionally (see text).

nest in open woodlands. In the Cariamidae, *Chunga* lives and nests in forests, and *Cariama*, although found in open savanna, still nests in trees. The Otididae, Turnicidae, and Pedionomidae are not at all aquatic and are for the most part open-country dwellers, although some turnicids live in forests. It seems likely that the primitive habitat for the whole order Gruiformes, as well as the Rallidae, was forest, and that certain groups have secondarily become adapted to aquatic situations or open grassland.

The geographic origins of the Rallidae have been obscured by the antiquity, cosmopolitan distribution, and inadequate taxonomy of the family. However, with the present and hopefully improved phylogeny, a familiar pattern emerges. The greatest number of species, the greatest number of peculiar genera, and the most primitive members of the Rallidae are found in the Old World tropics. The New World has relatively fewer groups, most of which are derived from Old World stem groups. A few genera appear to have specialized and radiated in the New World, some of which re-invaded the Old World.

#### SUMMARY

*Himantornis* is the most primitive and distinctive genus of the Rallidae, showing some characters in common with the Psophiidae. It is placed in a separate subfamily, the Himantornithinae. No subfamilial distinctions can be made among the remaining genera of rails and these are all placed in the Rallinae. A classification of the genera of Rallinae is advanced. The following generic changes have been made: *Mentocrex* and *Rallicula* into *Canirallus*; *Nesolimnas*, *Cabalus*, *Habropteryx*, and the subgenera *Sylvestrornis* and *Hypotaenidia* (including *striatus*) into *Gallirallus*; *Limnecorax* into *Amauornis*; *Por-*

*zanula*, *Pennula*, *Aphanolimnas*, and *Nesophylax* into *Porzana*; *Ortygonax* into *Pardirallus*; *Megacrex* into *Habroptila*; *Porphyryla* and *Notornis* into *Porphyrio*; *Edithornis* into *Pareudiastes*; *Porphyriops*, *Porphyriornis*, and *Tribonyx* into *Gallinula*. The limits of the following genera have also been altered: *Sarothrura* to include *Coturnicops ayresi* (after Keith et al., 1970); *Anurolimnas* to include *Laterallus fasciatus* and *L. viridis*; *Tricholimnas* restricted to *lafresnayanus*; *Dryolimnas* to include *Rallus pectoralis*; *Rallus* to exclude *Pardirallus*, *R. pectoralis*, *R. striatus*, and *Hypotaenidia*; *Poliolimnas* to include *Porzana flaviventer*. Flightlessness and the crane-like build have each evolved several times from different parental stocks. The ancestral rails are believed to have been forest dwellers, the family having only secondarily adapted to aquatic environments. The Rallidae probably had its origins in the Old World tropics with secondary radiations in the New World.

## ACKNOWLEDGMENTS

An acquaintance with the genera and species of Rallidae was gained by several years of perusal of skins and skeletons in a number of museums, particularly the National Museum of Natural History and the American Museum of Natural History. Dean Amadon, A. R. McEvey, Raymond A. Paynter, Jr., Robert W. Storer, and Melvin A. Traylor loaned me valuable specimens in their care. John Farrand, Jr., Kenneth C. Parkes, S. Dillon Ripley, George E. Watson, and Richard L. Zusi read and commented on various drafts of the manuscript. The photographs are by Victor E. Krantz. I am particularly indebted to my friend Bill Zimmerman for skillfully executing the frontispiece.

## LITERATURE CITED

- ALI, S. AND S. D. RIPLEY. 1969. Handbook of the birds of India and Pakistan. Volume 2. Oxford Univ. Press, Bombay.
- AMADON, D. AND J. E. DUPONT. 1970. Notes on Philippine birds. *Nemouria*, 1:1-14.
- ANDERSON, S. AND J. N. JONES, JR. 1967. Recent mammals of the world. A synopsis of families. Ronald Press, New York.
- ANDREWS, C. W. 1896. On the extinct birds of the Chatham Islands. Part II.—The osteology of *Palaeolimnas chathamensis* and *Nesolimnas* (Gen. Nov.) *dieffenbachii*. *Novitates Zool.*, 3:260-271.
- BAKER, E. C. S. 1929. Fauna of British India. Birds. Volume 6. (Second Ed.). Taylor and Francis, London.
- BAKER, R. H. 1951. The avifauna of Micronesia, its origin, evolution, and distribution. *Univ. Kansas Publ. Mus. Nat. Hist.*, 3:1-359.
- BANNERMAN, D. A. 1931. The birds of tropical West Africa. Volume 2. Crown Agents, London.
- BARBOUR, T. AND J. L. PETERS. 1927. Two more remarkable new birds from Cuba. *Proc. New England Zool. Club*, 9:95-97.
- BENSON, C. W. AND R. WAGSTAFFE. 1972. *Porzana olivieri* and *Limnocorax flavirostris*; a likely affinity. *Bull. Brit. Ornithol. Club*, 92:160-164.
- BENSON, C. W. AND J. M. WINTERBOTTOM. 1968. The relationship of the Striped Crake *Crecopsis egregia* (Peters) and the White-throated Crake *Porzana albicollis* (Vieillot). *Ostrich*, 39:177-179.
- BOND, J. 1940. Check-list of birds of the West Indies. *Acad. Nat. Sci.*, Philadelphia.
- BOND, J. 1967. Twelfth supplement to the Check-list of birds of the West Indies (1956). *Acad. Nat. Sci.*, Philadelphia.

EDITOR OF THE WILSON BULLETIN

GEORGE A. HALL

Department of Chemistry  
West Virginia University  
Morgantown, West Virginia 26506

EDITORIAL ADVISORY BOARD

WILLIAM C. DILGER  
DOUGLAS A. JAMES  
WILLIAM A. LUNK  
ANDREW J. MEYERRIECKS

HELMUT C. MUELLER  
ROBERT W. NERO  
KENNETH C. PARKES  
GLEN E. WOOLFENDEN

ORNITHOLOGICAL LITERATURE EDITOR

PETER STETTENHEIM

Box 79, Plainfield, New Hampshire 03781

SUGGESTIONS TO AUTHORS

See *Wilson Bulletin*, 84:513, 1972 for more detailed "Suggestions to Authors." Manuscripts intended for publication in *The Wilson Bulletin* should be neatly type-written, double-spaced, with at least one inch margins, and on one side only of good quality white paper. Tables should be typed on separate sheets, and should be designed to fit the normal page width, i.e., narrow and deep rather than wide and shallow. Before preparing these, carefully consider whether the material is best presented in tabular form. Follow the AOU Check-list (Fifth Edition, 1957) insofar as scientific names of United States and Canadian birds are concerned unless a satisfactory explanation is offered for doing otherwise. Use species names (binomials) unless specimens have actually been handled and subsequently identified. Summaries of major papers should be brief but quotable. Where fewer than five papers are cited, the citations may be included in the text. All citations in "General Notes" should be included in the text. Follow carefully the style used in this issue in listing the literature cited; otherwise, follow the "CBE Style Manual" (1972, AIBS). Photographs for illustrations should be sharp, have good contrast, and be on gloss paper. Submit prints unmounted and attach to each a brief but adequate legend. Do not write heavily on the backs of photographs. Diagrams and line drawings should be in black ink and their lettering large enough to permit reduction. Extensive alterations in copy after the type has been set must be charged to the author.

NOTICE OF CHANGE OF ADDRESS

If your address changes, notify the Society immediately. Send your complete new address to the Treasurer, William A. Klamm, 2140 Lewis Drive, Lakewood, Ohio 44107. He will notify the printer.

The permanent mailing address of the Wilson Ornithological Society is: c/o The MUSEUM of Zoology, The University of Michigan, Ann Arbor, Michigan 48104. Persons having business with any of the officers may address them at their various addresses given on the back of the front cover, and all matters pertaining to the Bulletin should be sent directly to the Editor.

PAST PRESIDENTS OF THE WILSON  
ORNITHOLOGICAL SOCIETY

J. B. Richards, 1888-1889	Margaret Morse Nice, 1938-1939
Lynds Jones, 1890-1893	Lawrence E. Hicks, 1940-1941
Willard N. Clute, 1894	George Miksch Sutton, 1942-1943
R. M. Strong, 1894-1901	S. Charles Kendeigh, 1943-1945
Lynds Jones, 1902-1908	George Miksch Sutton, 1946-1947
F. L. Burns, 1909-1911	Olin Sewall Pettingill, Jr., 1948-1950
W. E. Saunders, 1912-1913	Maurice Brooks, 1950-1952
T. C. Stephens, 1914-1916	W. J. Breckenridge, 1952-1954
W. F. Henninger, 1917	Burt L. Monroe, Sr., 1954-1956
Myron H. Swenk, 1918-1919	John T. Emlen, Jr., 1956-1958
R. M. Strong, 1920-1921	Lawrence H. Walkinshaw, 1958-1960
Thos. L. Hankinson, 1922-1923	Harold F. Mayfield, 1960-1962
Albert F. Ganier, 1924-1926	Phillips B. Street, 1962-1964
Lynds Jones, 1927-1929	Roger Tory Peterson, 1964-1966
J. W. Stack, 1930-1931	Aaron M. Bagg, 1966-1968
J. M. Shaver, 1932-1934	H. Lewis Batts, Jr., 1968-1969
Josselyn Van Tyne, 1935-1937	William W. H. Gunn, 1969-1971

PAST SECRETARIES OF THE WILSON ORNITHOLOGICAL SOCIETY

Lynds Jones, 1888-89	Albert F. Ganier, 1918-22
J. Warren Jacobs, 1890-91, 1893	Gordon Wilson, 1923-25
Willard N. Clute, 1892	Howard K. Gloyd, 1926-28
William B. Caulk, 1894	Jesse M. Shaver, 1929-31
J. E. Dickinson, 1895-97	Lawrence E. Hicks, 1932-36
W. L. Dawson, 1898-1901	Olin Sewall Pettingill, Jr., 1937-41
John W. Daniel, Jr., 1902-05	Maurice Brooks, 1942-46
Frank L. Burns, 1906	James B. Young, 1947-48
Benj. T. Gault, 1907-11	Harold F. Mayfield, 1948-51
C. W. G. Eifrig, 1912-13	Phillips B. Street, 1952-55
Orpheus M. Schantz, 1914	Fred T. Hall, 1956-57
Thos. L. Hankinson, 1915-16	Aaron M. Bagg, 1958-61
G. A. Abbott, 1917	Pershing B. Hofslund, 1962-66
	Jeff Swinebroad, 1967-70