4 years. Financial support for this study was provided by NSF grant GB-33984. Computer time was made available by the Thomas E. Tramel Computing Center at Mississippi State University.

Literature Cited

CROSBY, G. T. 1971. Ecology of the Red-cockaded Woodpecker in the nesting season. Unpublished M.S. thesis, Gainesville, Univ. Florida.

GRUSCHOW, G. F., & K. B. TROUSDELL. 1958. Incidence of heart rot in mature loblolly pine in coastal North Carolina. J. Forestry 56: 220–221.

HEPTING, G. H. 1971. Diseases of forest and shade trees of the United States. U.S. Dept. Agr. Forest Serv. Agr. Handbook No. 386.

——— & A. D. CHAPMAN. 1938. Losses from heart rot in two shortleaf and loblolly pine stands. J. Forestry 36: 1193–1201.

LIGON, J. D. 1970. Behavior and breeding biology of the Red-cockaded Woodpecker. Auk 87: 255–278.

NELSON, R. M. 1931. Decay in loblolly pine on the Atlantic Coastal Plain. Virginia Forest Serv. Publ. 43: 58–59.

SOKAL, R. R., & F. J. ROHLF. 1969. Biometry. San Francisco, W. H. Freeman and Co.

STEIRLY, C. C. 1957. Nesting ecology of the Red-cockaded Woodpecker in Virginia. Atlantic Naturalist 12: 280–292.

THOMPSON, R. L. (ED.). 1971. The ecology and management of the Red-cockaded Woodpecker. Tallahassee, Florida, Bur. Sport Fish. Wildl., U.S. Dept. Interior, and Tall Timbers Res. Station.

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Unusual food item of Franklin's Gull.—Investigations on the ecology of birds are necessary for their conservation, and food habits data seem justified in adding to the total ecological picture. While preparing a museum study skin (DLD 159) of an adult (sex unknown, weight 325 g) Franklin's Gull (*Larus pipixcan*) collected by the first author on 1 October 1972 at the Maryville sewerage lagoons, Nodaway County, Missouri, we found 23 stinkbugs (Pentatomidae) and one large adult prairie vole (*Microtus ochrogaster*) in the crop, and one adult western harvest mouse (*Reithrodontomys megalotis*) in the gizzard. The Franklin's Gull is considered to be almost completely insectivorous and the stinkbugs were not surprising although Bent (1921, Life histories of North American gulls and terns, Washington, USNM Bull. 113: 170–171) does not specifically mention these insects. The mice were surprising; the only reference we have been able to find on any vertebrate foods of this gull is Bent (op. cit., 171) who speculates that possibly small fish might be eaten. The feeding habits of this "prairie" gull during migration are well known as it often follows the farmer and plow during spring and fall to feed upon freshly exposed grubs and worms. During this time other animals such as mice are frequently exposed by the plowing and subject to heavy predation. The habit of hawks following a plowman are well known. Evidently the Franklin's Gull is an opportunistic feeder and will sometimes consume vertebrates such as mice. It is not known whether this individual was a scavenger or a predator, but the consumption of two fresh mice at the same time makes us suspect predation. The intact prairie vole was a particularly large individual; we marveled that so large an item would be swallowed whole.—DAVID A. EASTERLA AND DOYLE L. DAMMAN, *Department of Biology, Northwest Missouri State University, Maryville 64468.* Accepted 29 Sep. 75.

The Greater Shearwater in the northern Gulf of Mexico.—The first record of this shearwater (*Puffinus gravis*) from the Gulf of Mexico was not from Galveston on 4 November 1973, as claimed by Arnold (1975, Auk 92: 394), but from Dog Island near St. Marks, Florida on 29 January 1950, specimen in Florida State University, H. M. Stevenson (1950, Florida Naturalist 23: 71). Arnold wrote that this shearwater is "known from the United States only along the Atlantic coast from eastern Florida northward" (Murphy 1967, Serial atlas of the marine environment: Distribution of North Atlantic pelagic birds, map 8B, Amer. Geogr. Soc.) and that he has been "unable to locate any other records for the Gulf coast of the United States or for any other part of the Gulf of Mexico region."

After 1950 the species was recorded in the northern Gulf of Mexico in 1958, 1964, 1966, 1970, 1971, 1972, 1973, and 1974. In 1975 Purrington (Amer. Birds 29: 69) remarked that "these observations lend substance to the conclusion that the Greater Shearwater probably occurs annually along the n. Gulf coast."

Brief details on these records follow. Those from Louisiana are cited in Lowery 1974, Louisiana birds, third ed., Baton Rouge, Louisiana State Univ. Press, and those from Alabama in Imhof 1976, Alabama birds, second ed. University, Alabama, Univ. Alabama Press. Some of them also appeared in Audubon Field Notes and Amer. Birds, as cited below.

1958.—Most of July; specimen 30 July to Univ. Alabama from Mobile Pilot Ship, 7 miles south of Dauphin Island, Alabama, J. C. Gray and M. W. Gaillard (identification verified by R. C. Laybourne). 1964.—16 July, 2, Chandeleur Islands, Louisiana, L. E. Williams (Stewart 1964, A. F. N. 18: 513). 1966.—29 September, a dying bird not preserved, Dauphin Island, tropical storm Debbie, W. T. Siebols. 1970.—7 May, off Santa Rosa Island, Florida, J. M. Stevenson (Imhof 1970, A. F. N. 24: 616). 21 and 23 May, 3, 1½ miles off Panama City, Florida, M. A. Olson (Imhof 1970, A. F. N. 24: 616). 4 and 5 September, 2 on 4th, 35 miles off South Pass, Louisiana, R. J. Newman. 1971.—11 August, 35 miles off South Pass, R. J. Newman. 1972.—3 May, 20 miles off South Pass, R. J. Newman. 1973.—July through September, up to 16, off Dauphin Island, T. Walker and many (Purrington 1974, Amer. Birds 28: 64). 1974.—4 July, off Dauphin Island, F. E. Bowers (Purrington 1975, Amer. Birds 29: 69). 30 July, specimen, Florida State Museum, off Shired Island, Dixie County, Florida, D. W. Johnston. 1 September, 1 probable; 11 November, 27 probables, off Panama City, Florida, S. Stedman and J. Harbison (Purrington 1975, Amer. Birds 29: 69).

In my experience on the Alabama coast, shearwaters, storm-petrels, gannets, boobies, tropicbirds, frigatebirds, phalaropes, jaegers, and pelagic gulls and terns generally feed 30 or more miles offshore when the wind is northerly (offshore). With southerly onshore winds, which are usual during storms, these birds are often seen from land and even enter bays. The Magnificent Frigatebird (*Fregata magnificens*) is a conspicuous example of this type of feeding pattern. In 1973 Greater Shearwaters entered Mississippi Sound, Alabama on southerly winds of 5–10 knots and provided opportunities for excellent photography by T. Walker, J. V. Peavy, and H. H. Kittinger (Imhof 1973, Alabama Birdlife 21 (3–4): 6–7; 1976, Alabama birds, second ed.).—THOMAS A. IMHOF, *1036 Pike Road, Birmingham, Alabama 35218.* Accepted 3 Oct. 75.

Differential growth of body parts in the White Ibis.—Patterns of growth and the development of final structure size in birds, like other characteristics of reproduction, are the results of adaptation to the varying environmental demands on both adults and young. Ricklefs (1973) demonstrated how patterns of biomass growth relate to varying adaptive strategies. To elucidate the adaptive processes of growth, it is also important to consider the patterns of growth of characters other than biomass and to compare such patterns within a single species. Ricklefs (1975) suggested that differences in growth rates reflect differences in the rate at which mature function is achieved. If so, differing growth rates of various body parts must have differing adaptive values relative to the biology of each species. Ricklefs (1975) discussed differential growth rates of body components in a passerine. A number of other studies have measured the growth of various body parts in birds and Kahl (1962, 1966), Siegfried (1972) and Gavino and Dickerman (1972) have done the same for various ciconiiforms. Siegfried (1966), Karhu (1973) and Dunn (1976) noted the occurrence of differential growth of body parts. These studies gave little consideration to the adaptive aspects of the growth patterns they found. In this paper I discuss the growth of seven body components of the White Ibis (*Eudocimus albus*) and comment on the adaptive value of differing growth patterns.

Birds were taken as pipped eggs from nesting colonies in southern Florida and individually maintained in small containers at 30°C. Each hour they were fed all they would consume of a ground mixture of two parts shrimp (*Penaeus duorarum*) and one part sardine (*Harengula pensacolae*) by weight to which was added 20 ml of water and 1 g vitamin and mineral supplement per 100 g of food. After 2 weeks they were placed in larger cages within a screened enclosure under ambient southern Florida temperature and fed shelled shrimp and anchovies (*Anchoa mitchilli*). At 3 weeks they were moved to outdoor cages, 0.5 × 0.5 × 1.1 m.

Birds were weighed and the middle toe, tarsus, primary VIII, wing arc, innermost left retrix, and the bill were measured daily before their first meal. Mean sizes and ranges were calculated based on 5 birds from day 1 to 20 and on one male and one female from day 20 to 130. My concurrent measurements of the biomass growth of wild nestling White Ibis showed that the biomass growth of the captive nestlings was slower. The discrepancy between wild and captive nestlings does not bias the results of the present paper, which concerns only the relative growth among body parts. The patterns of growth described were also apparent in the wild nestlings studied. A detailed consideration of the differences in growth between wild and captive ibis will be presented elsewhere (Kushlan ms.). In the present paper, captive birds were used to facilitate daily measurements and to follow growth beyond the usual nestling period.

Growth curves were compared using Ricklefs' (1967) method of curve fitting. The growth curve parameters compared were the asymptotic size (the calculated size approached by the growth curve, which bears