

## PERIODICAL LITERATURE

EDITED BY HERBERT W. KALE II

### TWO NEW PERIODICALS

FLORIDA FIELD NATURALIST. Published by the Florida Ornithol. Soc., care of the Florida Audubon Soc., P. O. Drawer 7, Maitland, Florida 32751.—This semiannual (quarterly in the future) journal welcomes articles and short notes containing new information on subjects relevant to the biology of wild species of birds or other vertebrates in or near Florida. Its emphasis is on field biology. Annual dues, members of Florida Audubon Soc., \$5.00; associate members (non-F.A.S. members), \$6.00; libraries, \$6.00.—H.W.K.

THE BIRD WATCH. Published by the Bird Populations Inst., Div. Biol., Kansas State Univ., Manhattan, Kansas 66506.—Monthly except July and August. Subscriptions \$5.00 per year. "It is time for birders to acknowledge the fact that if they want to preserve the pleasure of watching birds, they must take the responsibility of watching over them. The protection of bird populations, however, depends on a deep understanding of their regulation, which for the most part, we lack. The BPI is committed to developing this understanding, and to communicating it to the people who care. When the impact of man's activities on bird numbers can be accurately assessed, we shall be better able to defend our conservation efforts."—H.W.K.

### BEHAVIOR

- AINLEY, D. G. 1972. Flocking in Adélie Penguins. *Ibis* 114: 388-390.—Describes nest spacing, flock spacing, cohesion and synchrony, flocking under adverse conditions, and fledgling flocking behavior. Concludes that flocking may be partially a learned behavior.—R.W.S.
- AUSTIN, G. T., AND S. M. RUSSELL. 1972. Interspecific aggression of Ash-throated Flycatchers and Cassin's Sparrows. *Condor* 74: 481.
- BURT, E. H., JR. 1972. Eggshell removal in the Spotted Sandpiper. *Wilson Bull.* 84: 492.
- CALDER, W. A. 1972. Piracy of nesting materials from and by the Broad-tailed Hummingbird. *Condor* 74: 485.
- DARLEY, J. A., D. M. SCOTT, AND N. K. TAYLOR. 1971. Territorial fidelity of [Gray] Catbirds. *Canadian J. Zool.* 49: 1465-1478.—Over one-third of a population of 109 breeding *Dumetella carolinensis* deserted their territories, usually after loss of nest contents. Pair bonds remained intact.—R.M.E.
- DOW, D. D. 1971. Australia's Noisy Miner. *Fauna* 1 (3): 24-31.—Describes communal breeding behavior, territoriality, feeding, aggressiveness, and other social interactions of *Myzantha melanocephala*. Author introduces the "corroboree" display, believed to be a reinforcement of social bonds among groups.—J.T.D.
- DOWNING, P., AND E. DOWNING. 1969. Grackles "anting" with Black Walnuts. *IBBA News* 41: 146.—*Quiscalus quiscula*.—D.M.F.
- DUNFORD, C., AND E. DUNFORD. 1972. Interspecific aggression of resident Broad-tailed and migrant Rufous Hummingbirds. *Condor* 74: 479.
- EDSCORN, J. B. 1973. A swimming Bald Eagle. *Florida Field Naturalist* 1: 15.—An eagle entered the water to search, unsuccessfully, for a fish it had made an Osprey drop.—H.W.K.
- EDSCORN, J. B. 1973. Autumn singing by Ovenbirds. *Florida Field Naturalist* 1: 15.

- FLIEG, G. M., AND R. E. DOOLEY. 1972. Spasmodic tic, a behavioral trait of the Cracidae. *Condor* 74: 484.
- HARWIN, R. M. 1972. Aggressive behaviour of *Campethera bennetti*. *Ostrich* 43: 183-184.—Wing-up.—R.B.P.
- HICKMAN, G. L. 1973. A Mockingbird and Blue Jay seeking shelter from rain. *Florida Field Naturalist* 1: 13-14.
- HINDEMITH, J. 1972. Merkwürdiges Verhalten des Mauerseglers (*Apus apus*) gegenüber Mehlschwalben (*Delichon urbica*). *Vogelwelt*, 93: 71-72.
- KAHL, M. P. 1972. Comparative ethology of the Ciconiidae. Part 2. The adjutant storks, *Leptotilos dubius* (Gmelin) and *L. javanicus* (Horsfield). *Ardea* 60: 97-111.—Comparative information on external morphology, behavior of adults (locomotion, feeding, comfort movements, and social display), and behavior of young Greater and Lesser Adjutant Storks. Short discussion and taxonomic considerations.—N.A.M.V.
- KISIEL, D. S. 1972. Foraging behavior of *Dendrocygus villosus* and *D. pubescens* in eastern New York state. *Condor* 74: 393-398.
- KONISHI, M. 1970. Evolution of design features in the coding of species-specificity. *Amer. Zool.* 10: 67-72.—Presents examples of song "coding" for several birds species; weaverbirds, White-throated Sparrow, European Robin, and meadowlarks.—C.M.W.
- KUNZE, P., AND H. ZANG. 1972. Die Blaumeise (*Parus caeruleus*) als Freibrüter. *Vogelwelt* 93: 20-22.—A pair of Blue Tits built a nest in the open, located against a tree trunk.—N.A.M.V.
- LAZARUS, J. 1972. Natural selection and the functions of flocking in birds: A reply to Murton. *Ibis* 114: 556-558.
- LECK, C. F. 1971. Cooperative feeding in *Leucophoyx thula* and *Podilymbus podiceps* (Aves). *Amer. Midl. Naturalist* 86: 241-242.—Cooperative feeding of Snowy Egrets and Pied-billed Grebes described for first time. Discusses the significance of such behavior.—G.D.S.
- LECK, C. F. 1972. Observations of birds at *Cecropia* trees in Puerto Rico. *Wilson Bull.* 84: 498-500.
- LEIN, M. R. 1972. Territorial and courtship songs of birds. *Nature* 237: 48-49.—*Dendroica virens* probably does not have different songs for territorial defense (type A) and courtship (type B) as claimed by Morse (1970, *Nature*, 226: 659). Rather, the basic song in all contexts is type B, and type A songs are sung in situations of added stress, such as in dim light, in the presence of another male, and at territory edges.—W.B.R.
- LEMON, R. E., AND C. CHATFIELD. 1971. Organization of song in Cardinals. *Anim. Behav.* 19: 1-17.—Statistical analysis of sequence of repetition of song types and syllables in *Richmondia cardinalis*.—F.E.L.
- LINDSAY, G., AND A. BRIDGE. 1971. A Great Blue Heron. *Pacific Discovery* 24 (1): 16-17.—Brief description of Blue Heron fishing behavior; includes photographs.—J.T.D.
- MARTIN, D. J. 1973. Burrow digging by Barn Owls. *Bird-Banding* 44: 59-60.—At least one burrow was dug by *Tyto alba* in New Mexico. The origin of four other burrows is not known.—B.A.H.
- MEYERIECKS, A. J. 1972. Tool-using by a Double-crested Cormorant. *Wilson Bull.* 84: 482-483.
- MCALLISTER, J. R., AND G. R. MAXWELL. 1971. Locomotion, maintenance and feeding behavior of the Great Blue Heron in northern New York. *Kingbird* 21: 183-203.

- McGRATH, T. A., M. D. SEALTER, W. M. SCHLEIDT, AND P. SARVELLA. 1972. Analysis of distress calls of chicken  $\times$  pheasant hybrids. *Nature* 237: 47-48.—The distress calls (noise made by a bird held in the hand) of hybrids between white leghorns and Ring-necked Pheasants were intermediate in frequency and duration but more like pheasants.—W.B.R.
- MENDEL, R. M., AND M. A. JENKINSON. 1971. Vocalizations of the Chuck-will's-widow and some related behavior. *Living Bird* 10: 171-184.—Depicts eight spectrograms of *Caprimulgus carolinensis* vocalizations. The "Chuck-will's-widow" song is related to courtship and territoriality. Wing clapping is mentioned and will be discussed in a future publication. In my experience the hissing sounds this bird utters, at least occasionally before capture, are especially reminiscent of snake behavior, and specifically the cottonmouth moccasin, because of the sometimes accompanying lurching head movements and gaping that display the white mouth lining. Unfortunately the caption for the painting accompanying the text uses the wrong specific name for what I assume are Chuck-will's-widows and misspells the vernacular.—G.E.W.
- MILLER, D. E. 1972. Parental acceptance of young as a function of incubation time in the Ring-billed Gull. *Condor* 74: 482-484.
- MINOCK, M. E. 1972. Interspecific aggression between Black-capped and Mountain Chickadees at winter feeding stations. *Condor* 74: 454-461.
- ROBINS, J. D. 1971. Adaptive behavior of a Downy Woodpecker missing one foot. *Kansas Ornithol. Soc. Bull.* 22: 13-14.—Observations of a banded and frequently recaptured *Dendrocopos pubescens* in early 1970.—R.S.
- SUTHERS, H. B. 1969. Notes on the singing behavior of two Band-winged Nightjars. *IBBA News* 41: 28-31.—Observations on *Caprimulgus longirostris* at Rio de Janeiro, Brazil May 1966-July 1967.—D.M.F.
- VINCE, M. A., AND S. CHINN. 1971. Effect of accelerated hatching on the initiation of standing and walking in the Japanese quail. *Anim. Behav.* 19: 62-66.—Although *Coturnix c. japonica* chicks that hatched on incubation day 16 instead of day 17 stood and walked on their toes slightly later than normal hatchlings, later development appeared normal.—F.E.L.
- VOWLES, D. M., AND E. PREWITT. 1971. Stimulus and response specificity in the habituation of anti-predator behaviour in the Ring Dove (*Streptopelia risoria*). *Anim. Behav.* 19: 80-86.—Habituated response to predator models was not changed by hormonal injections, but a novel stimulus elicited a normal response.—F.E.L.
- WEISBROD, A. R. 1971. Grooming behaviors of the Blue Jay. *Living Bird* 10: 271-284.—Describes care of the body surface by *Cyanocitta cristata* from observation of captive and wild individuals under the topics of preening, scratching, feather-settling, bill-wiping and bill-cleaning, bathing, sunning, and anting. The latter is accompanied by a series of drawings based on motion pictures. I heartily agree with Weisbrod's opinion that reporting on maintenance activities is an important base for studying the more elaborate behavioral patterns many birds exhibit.—G.E.W.
- WHITE, S. J. 1971. Selective responsiveness by the Gannet (*Sula bassana*). *Anim. Behav.* 19: 125-131.—Individuals recognize the landing calls of mates but not of neighbors. Although some young can recognize their parents' call, this is no advantage as the young do not wander from the nest.—F.E.L.
- WILLIS, E. O. 1972. The behavior of Plain-brown Woodcreepers, *Dendrocincla fuliginosa*. *Wilson Bull.* 84: 377-420.
- WIRKUS, A. F. 1969. Behavioral factors affecting Tree Sparrow winter survival.

IBBA News 41: 17-20.—Social hierarchy of *Spizella arborea* flocks in northern Illinois.—D.M.F.

DISTRIBUTION AND ANNOTATED LISTS

- ANDRLE, R. F., AND P. R. ANDRLE. 1972. Birds of a spruce plantation in the Allegheny Plateau of western New York. *Kingbird* 22: 159-163.
- BARLOW, J. C., J. A. DICK, D. WEYER, AND W. F. YOUNG. 1972. New records of birds from British Honduras (Belize), including a Skua. *Condor* 74: 486-487.
- BARTONEK, J. C. 1972. Summer distribution of pelagic birds in Bristol Bay, Alaska. *Condor* 74: 416-422.
- BOYD, R. L. 1971. Louisiana Heron at Cheyenne Bottoms. *Kansas Ornithol. Soc. Bull.* 22: 20.—Up to six *Hydranassa tricolor* were present at a waterfowl refuge in central Kansas 12 July to 23 August 1971.—R.S.
- CAMPBELL, R. W., M. G. SHEPARD, AND W. C. WEBER. 1972. Vancouver birds in 1971. Report of the Vancouver Nat. Hist. Soc. 88 pp.—Treats 249 species reported by observers in this area of British Columbia in 1971, with the aim of documenting seasonal occurrence, abundance, and distribution. The accounts are based on 22,564 sightings by 172 observers, with information summarized by species in systematic order. Discusses weather, changes in status, special counts, nest box program, bird banding, and collections made in the period. A table shows a mensural comparison of dowitchers, and there are 18 black-and-white plates of the region and of birds.—J.P.H.
- CARTER, W. A. 1972. Second Western Bluebird record for Oklahoma. *Bull. Oklahoma Ornithol. Soc.* 5: 33.
- CLANCEY, P. A. "1971" (= 1972). A handlist of the birds of southern Mocambique. Instituto de Investigacao Cientifica de Mocambique, Serie A, 10, 1969-1970: 145-302; 11, 1971: 1-167, maps, habitat photos, and numerous color plates.—A thorough checklist of subspecies with notes on habitat, localities, and taxonomic problems, of Portuguese East Africa north to the Zambezi River. Included are forms not yet recorded for Mocambique but collected in neighboring territories as well as recent records from collections made by the author and colleagues at the Durban Museum and Art Gallery.—R.B.P.
- CLANCEY, P. A. 1972. A further Natal record of *Caprimulgus europaeus plumipes* Przevalski, 1876. *Ostrich* 43: 63.
- CLANCEY, P. A. 1972. The Freckled Nightjar in a built-up urban area. *Ostrich* 43: 63-64.—*Caprimulgus tristigma*, a bird of rock outcrops, may be the unidentified nightjar of Berea, Durban, and might nest on rooftops.—R.B.P.
- CLAUSS, B. 1972. Pelicans at Lake Ngami. *Ostrich* 43: 176.—First record of *Pelecanus onocrotalus* breeding at Ngami since 1872. Adult pelicans and young formed a tight group that apparently kept out Marabou Storks, *Leptoptilos crumeniferus*.—R.B.P.
- CONSTANT, P., AND R. MAHÉO. 1970. L'avifaune nicheuse d'une lande xérophile de Bretagne. *Terre et Vie* 117: 346-355.
- COOKE, F., AND E. L. MILLS. 1972. Summer distribution of pelagic birds off the coast of Argentina. *Ibis* 114: 245-251.—Eighteen species of seabirds observed from the CSS 'Hudson' between Rio de la Plata and Tierra del Fuego in late January and late February 1970.—R.W.S.
- DAVIS, T. H., AND A. SWOGER. 1972. Photographs of New York state rarities.—22. Chuck-will's-widow. *Kingbird* 22: 157-158.—Reviews records of *Caprimulgus carolinensis* 1933-1972.—M.C.B.

- DELONG, MRS. W. C. 1969. A Townsend's Solitaire banded in Iowa. *IBBA News* 41: 54-55.
- DUNCAN, R. 1973. A Great Cormorant in west Florida. *Florida Field Naturalist* 1: 13.
- EASTERLA, D. A. 1972. Specimens of Black-throated Blue Warbler and Yellow-green Vireo from west Texas. *Condor* 74:489.
- EDSCORN, J. B. 1972. Bird watchers. *Florida Naturalist* 45: 160.—Baltimore Oriole and possibly Antillean Palm Swifts (photographed) nesting at Key West, Florida. Lists localities in Florida for introduced Canary-winged Parakeet, Blue-gray Tanager, Scarlet Ibis.—E.E.
- ELY, C. A., AND M. C. THOMPSON. 1971. Distributional notes from southwestern Kansas. *Kansas Ornithol. Soc. Bull.* 22: 9-11.
- GARDNER, A. L. 1972. The occurrence of *Streptoprocne zonaris albicincta* and *Ara militaris* in Chiapas, Mexico. *Condor* 74: 480-481.
- HAIGHT, P., AND T. HAIGHT. 1970. Lark Bunting in Dutchess County [New York]. *Kingbird* 20: 180-181.—First published record of *Calamospiza melanocorys*.—M.C.B.
- HARDING, B. D. 1972. Nighthawk in the Isles of Scilly. *Brit. Birds* 65: 301-302. *Chordeiles minor*, 12-13 October 1971.—H.B.
- HARRISON, J. M., AND J. G. HARRISON. 1972. Further notes on American and Schioler's Dunlin from Britain. *Bull. Brit. Ornithol. Club* 92: 38-40.—Reports three more specimens of *C. a. sakhalina*, and the recovery from the breeding grounds of two *C. a. arctica* ringed as migrants in Britain.—F.B.G.
- HAVERSCHMIDT, F. 1972. Bird records from Surinam. *Bull. Brit. Ornithol. Club* 92: 49-53.—Recent records and breeding season extensions not covered in his book.—F.B.G.
- HAVERSCHMIDT, F. 1972. *Pachyramphus surinamus* nesting in Surinam. *Ibis* 114: 393-395.—The Glossy-backed Becard was collected for the first time in Surinam in 1965; now several specimens exist from that country. Includes notes on gut contents and a nest built on the nest of the stingless bee *Trigona* (Apidae).—R.W.S.
- HOFFMAN, W. 1972. A sight record of the Sharp-tailed Sandpiper at South Beach, Lincoln County Oregon. *Murrelet* 53: 32.—The first record of *Erolia acuminata* for Oregon. Includes photograph.—A.C.V.
- HUBBARD, J. P. 1972. King Rail and Flammulated Owl at El Paso, Texas. *Condor* 74: 481.
- JAMES, H. W., AND R. K. BROOKE. 1972. Breeding daa on the Karoo Prinia in the Great Fish Basin. *Ostrich* 43: 137-138.—Tallies *Prinia maculosa* breeding records throughout the species' range.—R.B.P.
- JENSEN, A. C. 1971. Land birds at sea. *Sea Frontiers* 17: 48-56.—Discusses land birds sighted at sea during the US-USSR Cooperative Oceanographic Cruise. In all, 29 species were counted along the Middle Atlantic Bight from Cape Cod, to Cape Hatteras. Greatest numbers of birds were sighted during the fall migration. Largest birds included a Peregrine Falcon and an Osprey. Most common birds were Myrtle Warblers and Golden-Crowned and Ruby-Crowned Kinglets. Numerous dead or dying birds indicates considerable mortality among land birds at sea.—J.T.D.
- KRAUS, M., AND W. KRAUSS. 1972. [On the occurrence inland in Germany of the Yellow Wagtail (*Motacilla flava flavissima*) with new evidence for Bavaria]. *Vogelwelt* 93: 101-106.—(In German; English summary.)
- KURY, C. R. 1972. Ring-necked Duck and Ruddy Turnstone wintering at Sitka. *Murrelet* 53: 11.

- LARRISON, E. J. 1971. Sight record of the Gray Flycatcher in Washington. *Murrelet* 52: 40.
- LATHAM, R. 1971. Some records of the Black Vulture on eastern Long Island. *Engelhardtia* 4: 33.
- MARTIN, J. 1972. Hadedá nesting in the southern entrance of the Seven Weeks Poort. *Ostrich* 43: 185-186.—*Bostrychia hagedash*.—R.B.P.
- MASATOMI, H. 1972. Communal wintering of a Sandhill Crane with Japanese Cranes in Hokkaido, Japan. *Wilson Bull.* 84: 250-260.
- MELLINGER, E. O. 1971. Traill's Flycatcher nesting in northeastern Georgia. *Oriole* 36: 38-39.—First breeding record for state.—E.F.P.
- MOYNIHAN, M. 1971. Successes and failures of tropical mammals and birds. *Amer. Naturalist* 105: 371-383.—Concludes that tropical species may be more successful in invading the temperate zones than are temperate species in invading the tropics. Explores possible reasons why.—G.D.S.
- MUSTAKALLIO, P. 1970. The bird fauna in Vaskijärvi Natural Park, Southern Finland. *Ornis Fennica* 47: 136-139.—(Finnish with English summary.)
- MYERFELD, A. B. 1972. A record of the Lucifer Hummingbird in Arizona. *California Birds* 3: 16.
- PARMELEE, D. F. 1971. Yellow-throated Warbler in Lyon County, Kansas. *Kansas Ornithol. Soc. Bull.* 22: 8.—The westernmost Kansas specimen of *Dendroica dominica* taken 13 April 1970.—R.S.
- PETROVIC, C. A., AND J. KING, JR. 1973. Bird records from the Dry Tortugas. *Florida Field Naturalist* 1: 5-8.—Notes on 70 early spring (25 March-4 April 1967) migrants.—H.W.K.
- PETTERSSON, G., AND N. UNGER. 1972. Observations of ocean birds on the Swedish westcoast during the ten-year period 1960-1969. *Vår Fågelvärld* 31: 229-236.—An influx of ocean birds into the Cattegatt Sea commonly occurs in the fall and winter; discusses the connection with winds and weather. (In Swedish, English summary.)—L.DEK.L.
- PHELPS, W. H., JR. 1973. Adiciones a las listas de aves de Sur America, Brasil y Venezuela y notas sobre aves venezolanas. *Bol. Soc. Venez. Cien. Nat.* 30: 24-40.—Adds 14 species or subspecies to the avifauna of Brazil (chiefly near the Venezuelan border) and 11 to that of Venezuela; 7 are migrant Parulidae from temperate North America, including *Wilsonia citrina*, new to South America, collected in both Venezuela and Colombia. Presents some taxonomic notes; weights for a number of resident forms. (Brief English summary.)—E.E.
- POST, W. 1972. A new Glossy Ibis colony at Cedar Beach, New York. *Kingbird* 22: 19-20.—Since the first known nesting in New York state in 1961, number of colonies has increased to 10.—M.C.B.
- QUALLS, MRS. W. H. 1971. Ruby-throated Hummingbird observations in southeastern Kansas. *Kansas Ornithol. Soc. Bull.* 22: 18-20.—Reports on 6 years of observations of *Archilochus colubris* nests in Cherokee County.—R.S.
- ROKITANSKY, V. G., AND H. SCHIFTER. 1971. Ornithologische Ergebnisse zweier Sammelreisen in die Türkei. *Ann. Naturhist. Mus. Wien* 75: 495-538.—An annotated checklist of the birds seen and collected during two expeditions in Turkey, including a brief introduction and route maps.—J.W.H.
- RUSK, M. S., AND C. G. SPIES. 1972. Highlights of the fall season—Region 5—Oneida Lake Basin. *Kingbird* 22: 40.—First New York state specimen of Northern Fulmar (*Fulmarus glacialis*) 3 October 1971.—M.C.B.
- SALOMONSEN, F. 1970. Brilleand (*Melanitta perspicillata* (Linnaeus)), ny for Danmark. *Dansk Ornithol. Foren. Tids.* 64: 267-269.—An adult male captured in a

- fishing net on 26 November 1966 was preserved as a mounted specimen for the first Danish record (From English summary.)—J.P.H.
- SCHNAPP, B. 1971. New data concerning the Valullui-traian micro-mammal and bird fauna in the winters of 1957/1958—1961/1962, according to *Asio otus* (L.) pellets. *Trav. Mus. Hist. Nat. "Grigore Antipa"* 11: 495–510.
- SCHWILLING, M. D. 1971. Another White Ibis visits Kansas. *Kansas Ornithol. Soc. Bull.* 22: 11.—An adult *Eudocimus albus* was seen 2–14 May 1971 and photographed in Stafford County, and an adult was seen 19 May to 21 June 1971 in adjacent Barton County. The only previous sightings of the species in Kansas were in Douglas County in August 1969.—R.S.
- SCHWILLING, M. D. 1971. Bobolinks nest again in Kansas. *Kansas Ornithol. Soc. Bull.* 22: 14–15.—Report of a 1971 *Dolichonyx oryzivorus* colony in Barton County.—R.S.
- SCHWILLING, M. D. 1971. Rapid increase and dispersal of Boat-tailed Grackles in Kansas. *Kansas Ornithol. Soc. Bull.* 22: 15–16.—Summary of recent nest and sight records of *Cassidix mexicanus*. Apparently first reported in 1964 and again in 1969, Great-tails were found in several widespread locations by 1971, including a Barton County colony of about 30 nests.—R.S.
- SCHWILLING, M. D., AND R. BOYD. 1971. Little Blue Herons nest near Cheyenne Bottoms. *Kansas Ornithol. Soc. Bull.* 22: 14.—A 1971 *Florida caerulea* nesting colony in Barton County, the second recorded nesting in Kansas.—R.S.
- SHARROCK, J. T. R. 1972. Fan-tailed Warbler in County Cork: a species new to Britain and Ireland. *Brit. Birds* 65: 501–510.
- SIMPSON, M. B., JR. 1972. The Swallow-tailed Kite: a review of its occurrence in the southern Appalachians. *Chat* 36: 69–72.—Records from western North Carolina apparently are correlated with fluctuations in species' abundance in upper Mississippi valley, and probably represent southward bound migrants.—E.F.P.
- SMITH, G. A. 1971. Piping Plover at Montezuma National Wildlife Refuge [New York]. *Kingbird* 21: 10.—First reported occurrence of *Charadrius melodus* in the Cayuga Lake Basin.—M.C.B.
- STEEVES, J. B. 1971. Black-legged Kittiwakes in the Montreal area, P. Q., Canada. *Tchebec* 1: 12–14.
- STEVENSON, H. M. 1972. Further comments on Bachman's Warbler (*Vermivora bachmani*). *Florida Naturalist* 45: 129.—Corrects certain misconceptions on migration and song.—E.E.
- SUTHERS, H. 1969. Bird notes from Pernambuco, Northeastern Brazil. *IBBA News* 41: 128–133.
- TETRAULT, H. 1972. Chuck-will's-widow at Central Park, New York County, N. Y. *Kingbird* 22: 123.—First record of *Caprimulgus carolinensis* in metropolitan New York.—M.C.B.
- THOMPSON, M. C. 1971. Some winter records of warblers in Kansas and Oklahoma. *Kansas Ornithol. Soc. Bull.* 22: 11–12.—December 1970 and January 1971 sight records of *Dendroica tigrina* and *D. virens* in Cowley County, Kansas, and a sight record of *Geothlypis trichas* in Alfalfa County, Oklahoma, on 6 February 1971.—R.S.
- THOMPSON, M. C., AND H. CHAPLIN. 1971. Lesser Goldfinch in Kansas. *Ornithol. Soc. Bull.* 22: 7–8.—Up to 2 *Spinus psaltria*, which possibly nested, were seen in Cowley County on various dates from 27 July to 21 August 1970. A sight record at the same location for August 1960 is also mentioned. These first Kansas reports are far east of where the species is expected in Kansas.—R.S.

- THURBER, W. A., AND J. F. SERRANA. 1972. Status of the White-tailed Kite in El Salvador. *Condor* 74: 489-491.
- WAUER, R. H., AND D. G. DAVIS. 1972. Cave Swallows in Big Bend National Park, Texas. *Condor* 74: 482.
- WEISER, C. E. 1973. An early Common Scoter in northern Florida. *Florida Field Naturalist* 1: 14-15.

#### ECOLOGY AND POPULATION

- ALMKVIST, B., AND Å. ANDERSSON. 1972. An aerial census of flocked eider drakes *Somateria mollissima*—another method for calculating the breeding populations. *Vår Fågelvärld* 31: 237-240.—The census was conducted 1-2 June 1971 over the Baltic archipelago of central Sweden (In Swedish, English summary.)—L.DEK.L.
- ANDERSSON, Å., AND G. HAMILTON. 1972. White-backed Woodpecker *Dendrocopos leucotos* in Östergötland, east-central Sweden. *Vår Fågelvärld* 31: 257-262.—A detailed description of the species' habitat requirements showing a preference for mature deciduous woods and parklands. (In Swedish, English summary.)—L.DEK.L.
- BERGMAN, G. 1971. Grillteisten *Cephus grylle* in einem Randgebiet: Nahrung, Brutresultat, Tagesrhythmus und Ansiedlung. *Commentat. Biol.* 42: 26 pp.—A study of 25-35 pairs of Black Guillemots nesting on small partly wooded islands near Porkala, Gulf of Finland, 1963-1970. Includes fishing area, food of the young, the effect of poor food supply on colony attendance and on the feeding of the young, the attachment to certain shore types, the mechanisms of nest site fidelity and of colonizing surrounding islands. The area is marginal compared to the normal requirements of the species. This enabled the author to get information impossible to obtain by studying a colony living under optimal conditions.—(Author's abstract.)—M.D.F.U.
- BURT, H. E., AND M. L. GILTZ. 1969. A stability index for bird populations. *IBBA News* 41: 43-45.
- CAMPBELL, M. 1972. Eastern Bluebird nesting study, 1972. *Indiana Audubon Quart.* 50: 153-155.—Data on 40 nest boxes used in 1972 near Georgetown, Illinois. Third consecutive year of the study.—H.W.K.
- CODY, M. I., AND C. B. J. CODY. 1972. Territory size, clutch size, and food in populations of wrens. *Condor* 74: 473-477.—*Troglodytes troglodytes*.—H.W.K.
- CODY, M. I., AND C. B. J. CODY. 1972. Areal versus lineal territories in the wren, *Troglodytes troglodytes*. *Condor* 74: 477-478.
- ENEMAR, A., E. NYHOLM, AND B. PERSSON. 1972. The effects upon Fågelsångsdalens passerine community of nestbox installation. *Vår Fågelvärld* 31: 263-268.—The erection of nestboxes in a small valley in southern Sweden during 3 years in the middle of the period 1959-1970 trebled the populations of hole-nesting species. The withdrawal of the boxes produced an immediate decline in these populations levels. (In Swedish, English summary.)—L.DEK.L.
- ERSKINE, A. J. 1972. Populations, movements and seasonal distribution of mergansers. *Canadian Wildlife Serv. Rept. Ser. No. 7*: 36 pp., 11 figs., 9 tables, 6 photos. (Information Canada, Ottawa, cat. no. CW65-8/17. \$1.00.)—This paper deals mostly with *Mergus merganser* in Nova Scotia, giving much information on the biology of the species around the year. The relatively sedentary units are eliminated easily by shooting, which often is advocated by those interested in the salmon fishery; subsequent recovery of numbers is very slow.—R.S.P.
- FODGEN, M. P. L. 1972. The seasonality and population dynamics of equatorial forest birds in Sarawak. *Ibis* 114: 307-342.—Two-year study in the Semengo Forest



- Reserve with almost a nonseasonal climate, characterized by heavy rainfall year round, high humidity, and uniform moderately high temperatures. Extensive data on seasonality and distribution of insects and fruit, determination of avian breeding seasons, clutch size, mortality, behavior, molt, and seasonal changes in body weight and muscle protein levels. Two species (*Stachyris erythroptera* and *Arachnothera longirostris*) were found to exhibit a breeding cycle of about 9 months periodicity. Discusses controls of breeding and features of reproductive regimes. An extremely valuable contribution.—R.W.S.
- FRELIN, C. 1970. Dénombrement des oiseaux nicheurs dans un milieu ouvert à Dijon. *Jean-Le-Blanc* 9: 70-76.
- GATES, J. M. 1972. Red-tailed Hawk populations and ecology in east-central Wisconsin. *Wilson Bull.* 84: 421-433.
- GESSAMAN, J. A. 1972. Bioenergetics of the Snowy Owl (*Nyctea scandiaca*). *Arctic and Alpine Res.* 4: 223-238.—Thermal conductance, standard metabolism, and the lower critical temperature determined from studies of oxygen consumption and CO<sub>2</sub> production in this species are among the lowest found in birds. Oxygen consumption is a linear function of the square root of the air speed (m/sec), and more than doubles at relatively low air velocities. An energy budget developed from studies of metabolized energy under laboratory conditions compared favorably with data obtained from owls caged outdoors. Daily midwinter gross energy requirements varied from about 343 to 512 kcal/day which is equivalent to about 4 to 7 lemmings/day.—C.R.B.
- GULLION, G. W. 1972. Effects of logging upon Ruffed Grouse in Minnesota forests. *Minnesota Agr. Exp. Station Misc. Rept.* 116: 32-34.
- HEPPLESTON, P. B. 1971. The feeding ecology of Oystercatchers (*Haematopus ostralegus* L.) in winter in Northern Scotland. *J. Anim. Ecol.* 40: 651-672.—During midwinter, some individuals of this species supplement food obtained around Ythan estuary by feeding on earthworms in nearby fields. Observations on feeding requirements of a captive bird indicate free-living oystercatchers may be unable to obtain sufficient food from estuarine sources alone.—C.R.B.
- HEUSMANN, H. W. 1972. Survival of wood duck broods from dump nests. *J. Wildl. Mgmt.*, 36: 620-624.—Recapture rates of web-tagged *Aix sponsa* were the same for ducklings hatched in dump and normal nests.—L.H.F.
- HOLMBRING, J. A. 1972. Occurrence of the Middle Spotted Woodpecker *Dendrocopos medius* in Sweden. *Vår Fågelvärld* 31: 252-256.—Results of a 5-year investigation show that because of its preference for mature deciduous woods consisting mainly of ancient oak trees, now rare, only about 20 pairs still exist in the province of Östergötland, east central Sweden. (In Swedish, English summary.)—L.DEK.L.
- HOWELL, T. R. 1972. An ecological study of the birds of the lowland pine savanna and adjacent rain forest in northeastern Nicaragua. *Living Bird* 10: 185-242.—The avifaunas of the pine savanna and adjacent rain forests are almost totally different, largely because of different adaptations and distributional histories. The tropical rain forest has more bird species but fewer individuals of each compared with temperate forests. This is attributed to more niches in the tropical forest. The tropical pine savanna has no greater species diversity and has lower densities of individuals than temperate pinelands. Based on pine savanna data, Howell concludes (1) in similar habitats, at different latitudes, a more predictable and benign climate does not necessarily result in an abundance in the number of bird species or of individuals; (2) the smaller range of foraging activities and habitat usage of some tropical species compared with temperate species does not necessarily lead to greater species diversity although it may lead to a lower density of individuals;

- (3) bird species diversity varies in different taxa in different habitats at the same latitude; (4) the geological history of Central America and evolutionary history of its birds have influenced avifaunal differences between adjacent habitats and at different latitudes. (Based on author's summary.)—G.E.W.
- HUNT, G. L., JR. 1972. Influence of food distribution and human disturbance on the reproductive success of Herring Gulls. *Ecology* 53: 1051-1061.—Man's intervention has beneficial and harmful effects upon reproductive success in the Herring Gull (*Larus argentatus*). Survival of chicks was lower on islands farther from sources of edible refuse. Hatching success decreased in response to human disturbance. Gulls nesting on islands farthest from the mainland foraged more and attended chicks less. Chick loss to predation was higher on the outer islands.—C.R.B.
- JOHNSON, D., AND J. H. ENDERSON. 1972. Roadside raptor census in Colorado—winter 1971-72. *Wilson Bull.* 84: 489-490.
- JOHNSTON, D. W. 1971. Ecological aspects of hybridizing chickadees (*Parus*) in Virginia. *Amer. Midl. Naturalist* 85: 124-134.—A hybrid population of *Parus atricapillus* × *P. carolinensis* study in Virginia. Hybrids defined on basis of aberrant song, intermediate tail/wing ratio, and body weight. No consistent ecological differences between "parent" populations except altitude.—G.D.S.
- JOHNSTON, R. F. 1972. Ecological differentiation in North American birds. In A symposium on ecosystematics, Occ. Pap. Univ. Arkansas Mus. No. 4: 101-132.—Summarizes recent work (mostly published or to be published in greater detail elsewhere) by the author and his students on geographic covariation between morphological characters or character sets and environmental variables. Temperature correlates negatively with size of *Passer domesticus*, *Dendrocopos villosus*, and breeding *Agelaius phoeniceus*; rainfall negatively with hybrid scores of *Icterus galbula-I. bullockii*; and sympatry positively with convergence in agonistically important plumage characters of male *Sturnella magna-S. neglecta*.—D.M.N.
- KANG, KUO-WEL. 1971. Foreign recoveries of House Swallows banded in eastern Asian countries. *Ostrich* 42: 179-189.—*Hirundo rustica* band recovery was 0.09% (229 foreign recoveries out of 260,437 birds banded). Most wintering swallows in Taiwan are from Japan. Several swallows were recaptured on wintering grounds hundreds of miles from the banding site on wintering grounds, but most returned to the same locality. Discusses migration routes of several populations.—R.B.P.
- KILGORE, B. M. 1971. Response of breeding bird populations to habitat changes in a giant sequoia forest. *Amer. Midl. Naturalist* 85: 135-152.—The 30 species breeding in a giant sequoia forest are typically montane. When removal of many dead and live trees changed the habitat significantly, the avian species composition changed, but not the total avian biomass.—G.D.S.
- KUMARI, E. 1970. Changes in the bird fauna of the Matsalu Bay during the last 100 years. *Ornis Fennica* 47: 45-51.—This river delta marsh in Estonia has been studied since 1870. A few species have disappeared, mostly because of man-made changes, while others have entered the area since the 1950s. Discusses numerical fluctuations and their causes.—M.D.F.U.
- LECK, C. F. 1971. Overlap in the diet of some Neotropical birds. *Living Bird* 10: 89-106.—Observations at Barro Colorado Island on fruit- and nectar-feeding birds. The insect-eating warblers fed at different heights using different foraging techniques and thus competed very little. The fruit-eating birds fed wherever ripe fruit existed in the trees, and also tended to feed at the same time of day, thus competition existed. A comparison of bill sizes and diet indicates fruit-eaters do not partition the resources in this manner either. Some of the smaller-billed species

could not utilize the large fruits, but the large-billed species fed on fruits of all sizes.

Aggressive encounters were frequent among hummingbirds when flowers were scarce. When more plants were in bloom competition was lower, even though more hummingbird species were present, because they used mostly only preferred flowers. In the absence of other coerebids, Bananaquits dominated hummingbirds. When more flowers and more coerebids were present, competition was lower. The coerebids were opportunistic feeders, feeding on insects, fruit, and nectar, which enabled similar species to feed together without much competition.—G.E.W.

- NISBET, I. C. T. 1973. Terns in Massachusetts: Present numbers and historical changes. *Bird-Banding* 44: 27-55—an historical survey as well as rigorous censusing in recent years documents population sizes and suggests that numbers of *Sterna hirundo* have declined almost fivefold, *S. paradisaea* about threefold, *S. dougalli* about twofold, and *S. albifrons* about twofold, in the last few decades in Massachusetts. These declines appear attributable to human disturbance, nest site competition with gulls, food shortages in recent years, and in the case of Roseate Terns to recent emigration.—B.A.H.
- OTTENT, L. C., E. G. BOLEN, AND C. COTTAM. 1972. Predator-prey relationships and reproduction of the Barn Owl in southern Texas. *Wilson Bull.* 84: 434-448.
- PALOKANGAS, R., J. KOIVUSAARI, AND I. NUUJA. 1970. Incidence of the White-tailed Eagle in the region of the Quarken Straits in the 1960's.—*Ornis Fennica* 47: 179-184.—Increased lumbering, insecticides, and human population density have caused a rapid decline in the eagle population of the northeastern coastal area of Finland. Ten breeding pairs that have been observed for 8 years raised 13 young, but during the same period a like number were found dead. (Finnish with English summary.)—M.D.F.U.
- PRAATT, H. M. 1972. Nesting success of Common Egrets and Great Blue Herons in the San Francisco Bay region. *Condor* 74: 447-453.
- PRESCOTT, K. W. 1972. Three-year banding project of Tree Swallows. *EBBA News* 35: 244-249.—Presents nesting success for a colony of *Iridoprocne bicolor* using artificial nest boxes.—A.C.V.
- PREVETT, J. P., AND C. D. MACINNES. 1972. The number of Ross' Geese in central North America. *Condor* 74: 431-438.
- QUICKELBERGE, C. D. 1972. Spoonbills breeding in the Eastern Cape Province. *Ostrich* 43: 67.—*Palatalea alba* on the increase.—R.B.P.
- RECHER, H. F. 1972. Colour dimorphism and the ecology of herons. *Ibis* 114: 552-555.—Color dimorphism in herons is not a means of exploiting a wide range of resources. This problem needs experimentation.—R.W.S.
- SCHERNER, E. R. 1972. Untersuchungen zur Ökologie des Feldsperlings *Passer montanus*. *Vogelwelt* 93: 41-68.—A detailed 2-year study of the breeding biology of *Passer montanus* in Lower Saxony. Presents details on clutch initiation, clutch size, incubation and nestling period, nesting success, and considers the bioenergetics of the population and its role in terms of energy in the ecosystem. (English summary.)—N.A.M.V.
- SCHOLZ, M. 1972. Untersuchungen zur Siedlungsdichte und Reviergröße der Vögel in einen Perigras-Buchenwald (*Melico-Fagetum*) in Cappenberg bei Lünen. *Vogelwelt* 93: 121-133.—Bird density and territory size in a 122-year old beechwood containing much undergrowth. The methodology follows the detailed recommendations of the "settlement density committee" as set out in *Die Vogelwelt* 89: 69-78. With 70 pairs per ha the density is considerably higher than in dense beechwoods

- without undergrowth. Territory size varied between 1.5 and 2 ha. (English summary.)—N.A.M.V.
- SKAGGS, M. B. 1969. White-crowned Sparrow adult to immature ratio in fall. IBBA News 41: 231.—Of 172 *Zonotrichia leucophrys* banded in Ohio 1967–1969, 53% were first-year birds.—D.M.F.
- SOIKKELI, M. 1970. Mortality rate of Finnish Caspian Terns *Hydroprogne caspia*. Ornis Fennica 47: 177–179.—A mean annual mortality rate of  $12 \pm 3\%$  was calculated for Finnish Caspian Terns past 1.5 years of age. This rate equals an expectancy of further life of 7.8 years. The oldest specimens known to carry bands were 19 and 20 years old.—(Author's summary.)
- STAAV, R., B. ALMÆKVIST, AND S. HEDGREN. 1972. The Caspian Tern *Hydroprogne tschegrava* in Sweden 1971. Vår Fågelvärld 31: 241–246.—A census from 18 May to 25 July 1971 revealed about 850 to 950 pairs breeding singly or in colonies. Preferred nesting sites were outlying bare rocks and sandy bars. (In Swedish, English summary.)—L.DEK.L.
- STEWART, P. A. 1972. Mortality of Purple Martins from adverse weather. Condor 74: 480.
- TENOVOO, R., AND R. LEMMETYINEN. 1970. On the breeding ecology of the Starling *Sturnus vulgaris* in the archipelago of south-western Finland. Ornis Fennica 47: 159–166.—Habitat selection and feeding ecology data from 2 years of a planned long-term breeding ecology study.—M.D.F.U.
- WESELOH, D. V., AND R. T. BROWN. 1971. Plant distribution within a heron rookery. Amer. Midl. Naturalist 86: 57–64.—Quantitative description of vegetation in an active rookery in west central Minnesota. Sampling of floristic composition, soil nutrients, and pH.—G.D.S.

## GENERAL BIOLOGY

- ALISON, R. M. 1973. Delayed nesting in Oldsquaws. Bird-Banding 44: 61–62.—A banded female *Clangula hyemalis* laid 6 eggs near Churchill, Manitoba between 7 and 16 June but did not begin incubation until 27 June. During the interim the pair apparently visited the down-covered nest once, but no evidence of incubation was seen even though freezing temperatures and snow prevailed. The clutch hatched on 24 July. Observations of other breeding pairs and ages of southbound migrants suggested that Oldsquaws in the eastern Canadian arctic terminated egg-laying during inclement weather in late June-early July.—B.A.H.
- AUSTIN, G. T., E. YENSEN, AND C. S. TOMOFF. 1972. Snake predation on Cactus Wren nestlings. Condor 74: 492.
- BALLEY, Z. E., AND D. N. GRIFFIN. 1969. A study of selected phases of the life-history of the Boat-tailed Grackle in the Commerce (Hunt County, Texas) area. IBBA News 41: 3–11.—Incubation behavior with weights and measurements of nest, eggs, nestlings and adults of *Cassidix mexicanus*.—D.M.F.
- BARBU, P., AND C. SORESCU. 1970. Contributions concerning the diet of the Tawny Owl *Athene noctua noctua*. Ann. Univ. Bucur. Biol. Anim. 19: 67–72.
- BLEM, C. R. 1972. Stomach capacity in the Common Nighthawk. Wilson Bull. 84: 492–493.
- BORRERO H., J. I. 1972. Explotación de las flores de Guayacán (*Tabebuia chrysantha*) por varias especies de aves e insectos. Biotropica 4: 28–31.—The guayacán tree has two flowering seasons (the two dry seasons) in the Cauca Valley of Colombia. Three hummingbirds and *Coereba* were noted at the long tubular yellow flowers. The hummingbirds apparently obtained nectar either from perforations

- made just above the calix or by piercing the corolla themselves. *Coereba* appears to do its own piercing; its holes possibly may be exploited by hummingbirds, as has been observed for *Thunbergia grandiflora*.—E.E.
- CHAPMAN, B. R., AND S. D. CASTO. 1972. Additional vertebrate prey of the Loggerhead Shrike. *Wilson Bull.* 84: 496-497.
- DATHE, H. 1971. Sparrow Hawk *Falco sparverius* as bat hunter in Cuba. *Milu* 3: 195-197.
- DAVIS, R. E. 1969. Food requirements and weights of Robin nestlings. *IBBA News* 41: 50-51.—Notes on nine *Turdus migratorius*.—D.M.F.
- DAVIS, W. R. II, AND K. A. ARNOLD. 1972. Food habits of the Great-tailed Grackle in Brazos County, Texas. *Condor* 74: 439-446.
- DEWEESE, L. R., AND R. E. PILLMORE. Bird nests in an Aspen tree robbed by Black Bear. *Condor* 74: 488.
- GREENLAW, J. S. 1972. The use of sawdust piles by nesting Bank Swallows. *Wilson Bull.* 84: 494-496.
- GREENLAW, J. S. 1972. Record of late breeding in the Hermit Thrush. Kingbird 22: 165.—Documents an August nesting by *Catharus guttatus* on Long Island, New York.—M.C.B.
- GRÖNLUND, S., J. ITÄMIES, AND H. MIKKOLA. 1970. On the food and feeding habits of the Great Grey Shrike *Lanius excubitor* in Finland. *Ornis Fennica* 47: 167-171.—One nest studied and pellets collected throughout the summer, fall, and winter. Larders were very near the nest and were filled and emptied in rapid flights between nest and larder when nestlings were being fed. Prey during the breeding season was insects (52%) and lizards (27%); during autumn insects only, and in winter, birds and mammals.—M.D.F.U.
- GURCHINOFF, S., AND W. L. ROBINSON. 1972. Chemical characteristics of jackpine needles selected by feeding Spruce Grouse. *J. Wildl. Mgmt.* 36: 80-87.—*Canachites canadensis* selected trees with a high protein and ash content for feeding.—L.H.F.
- HARRIS, M. P. 1969. The biology of storm petrels in the Galápagos Islands. *Proc. California Acad. Sci.*, 4th Ser. 37: 95-166.—Reports on studies conducted between November 1965 and July 1967 on the Madeiran Storm-Petrel (*Oceanodroma castro*), Galapagos Storm Petrel (*O. tethys*), and the inshore species Elliot's Storm-Petrel (*Oceanites gracilis*).—J.T.D.
- HYNDMAN, C. C., AND A. S. HYNDMAN. 1972. The shell pigment of Golden Eagle eggs. *Condor* 74: 200-201.
- JACKSON, J. A. 1973. An observation of a Least Tern laying an egg. *Mississippi Kite* 3: 4-5.—Bird was disturbed from its nest and laid an egg nearby, an early breeding record for the northern Gulf coast, 7 May 1972.—J.A.J.
- JUAREZ L., C., AND R. W. DICKERMAN. 1972. Nestling development of Boat-billed Herons (*Cochlearius cochlearius*) at San Blas, Nayarit, Mexico. *Wilson Bull.* 84: 456-468.
- KEMP, A. C. 1972. The use of man-made structures for nesting sites by Lanner Falcons. *Ostrich* 43: 65-66.—*Falco biarmicus* bred in old crow nests.—R.B.P.
- KIRKPATRICK, R. D., M. R. ROY, G. A. WISE, AND L. L. HARDMAN. 1972. Contents of southern Indiana Wild Turkey droppings. *Proc. Indiana Acad. Sci.* 81: 165-168.—Analysis of 291 droppings collected over four seasons; grass seeds and plant leaves and stems most important items, insects not a large part of diet of either adults or juveniles.—O.L.A.JR.
- LATHAM, R. 1971. Notes on the food of the American Bittern. *Engelhardtia* 4: 50.
- LEWIS, E. R. 1971. An instance of roost[sic]-nesting by a Killdeer. *Kansas*

- Ornithol. Soc. Bull. 22: 18.—*Charadrius vociferus* nested on the gravel roof of a building in Topeka, Kansas, in 1971.—R.S.
- LOHRER, F. E., AND C. E. LOHRER. 1973. Inland nesting of the Least Tern in Highlands County, Florida. Florida Field Naturalist 1: 3-6.
- MARTIN, S. G. 1973. Longevity surprise: the Bobolink. Bird-Banding 44: 57-58.—Between 1966 and 1972 banded male *Dolichonyx oryzivorus* returned to the same breeding meadow in Wisconsin. Some were at least 6 years old. Each season old males arrive 2-4 weeks earlier than younger males.—B.A.H.
- MAYHEW, W. W. 1971. Desert encounter: a Roadrunner and a sidewinder. Fauna 1 (1): 17-19.—Photographs depict a Roadrunner capturing a sidewinder rattlesnake. Includes a list of prey animals.—J.T.D.
- MIKKOLA, H. 1970. On the activity and food of the Pygmy Owl *Glaucidium passerinum* during breeding. Ornis Fennica 47: 10-14.—Circadian activity depends on light intensity as this species does not see well in the dark. Correlation was good with the activity of the bank vole (*Clethrionomys glareolus*) the chief prey species (57% of 154 prey items).—M.D.F.U.
- MORTON, M. L., J. E. OREJUELA, AND S. M. BUDD. 1972. The biology of immature Mountain White-crowned Sparrows (*Zonotrichia leucophrys oriantha*) on the breeding ground. Condor 74: 423-430.
- NIKODEM, Z. 1972. Analysis of owl pellets from the territory between the Rivers Wisla and Wieprz. Przegląd Zool. 16: 46-59.
- PAYNE, R. B. 1972. Nuts, bones, and a nesting of Red Crossbills in the Panamint Mountains, California. Condor 74: 485-486.
- PETROVIC, C. A., AND G. S. MILLS. 1972. Sparrow Hawk eats European corn borer. Wilson Bull. 84: 491.
- PULLIAINEN, E. 1970. On the breeding biology of the Dotterel, *Charadrius morinellus*. Ornis Fennica 47: 69-73.—Preliminary results of a long-term study in Finnish Lapland during 1968-1969. Seven nests were studied, and either the male alone or both parents incubated and led the hatchlings. Summer food included insects, berries, and blossoms.—M.D.F.U.
- ROTHSTEIN, S. I. 1972. Eggshell thickness and its variation in the Cedar Waxwing. Wilson Bull. 84: 469-474.
- SCHMIDT, E. 1971. Finds of hamsters in owl pellets. Zool. Abhandl. Staatl. Mus Tierkunde (Dresden) 30: 219-222.
- SCHREIBER, R. W., AND J. J. DINSMORE. 1972. Caspian Tern nesting records in Florida. Florida Naturalist 45: 161.—First found nesting in 1962 in man-made fill along Pinellas County Bayway, also found breeding in another artificially created island in Tampa Bay as recently as 1972. All nestings were in association with other species of Lari, usually Laughing Gulls.—E.E.
- SEIBEL, D. 1971. The Mississippi Kite (*Ictinia mississippiensis*). Kansas Ornithol. Soc. Bull. 22: 6-7.—An interesting and useful report (by a 14-year-old author), primarily on a 1970 nesting of the kites, apparently in Cowley County, Kansas.—R.S.
- SMITH, S. M. 1972. Roosting aggregations of Bushtits in response to cold temperatures. Condor 74: 478-479.
- SMITH, T. S. 1972. Cowbird parasitism of Western Kingbird and Baltimore Oriole. Wilson Bull. 84: 497.
- TAYLOR, W. K. 1971. A breeding biology study of the Verdin, *Auriparus flaviceps* (Sundevall) in Arizona. Amer. Midl. Naturalist 85: 289-328.—Behavioral data gathered principally on 12 banded nesting pairs, but 93 marked. Discusses vocali-

zations, nest construction, roosting nests, clutch size, incubation, feeding, and fledging.—G.D.S.

- WILLSON, M. F. 1972. Seed size preference in finches. *Wilson Bull.* 84: 449-455.  
 ZWICKEL, F. C., AND J. F. DENDELL. 1972. Observations on food habits of incubating female Blue Grouse. *Condor* 74: 493-494.

#### MANAGEMENT AND CONSERVATION

- ANON. 1969. Peru saves anchovies for birds. *Sea Secrets* 13 (10): 5.—Decline in guano industry and reduction of sea bird population traced to overfishing anchovy grounds. Government imposes new fishing limits.—J.T.D.
- ANON. 1972. Culling to be kind. *Sea Secrets* 16 (5): 8.—National Trust plans to cull adult cow gray seals in Farne Islands to reduce breeding population. Overcrowding has resulted in soil erosion, affecting plant growth and breeding of Puffins.—J.T.D.
- BARBU, P. 1971. The Rough-legged Buzzard, *Buteo lagopus lagopus*, a useful bird. *Ocotirea Nat.* 15: 61-66.
- BEAMISH, T. 1972. The paradise flycatcher, Seychelles. *Biol. Conserv.* 4: 311-313.—This encouraging report on the endemic *Tchitrea corvina* estimates that 50 to 80 are present and that their main habitat is to be protected.—J.J.D.
- BERGER, A. J. 1972. Hawaiian Birds 1972. *Wilson Bull.* 84: 212-222.—A detailed report on status of birds and their habitats in Hawaii and a severe indictment of the policies and inaction of the Hawaii Department of Land and Natural Resources and other state and federal agencies that are contributing to the rape of the native Hawaiian biota. "The future of Hawaii's unique birds is bleak, indeed."—H.W.K.
- BUMP, G. 1972. (Monk Parakeet—a potential agricultural pest). *Amer. Birds* 26: 567.—Escapes of imported birds on the east coast of the U.S. are breeding and should be watched. It is regarded as a pest in South America. Briefly describes plumage and nest building.—E.E.
- COON, R. A., AND J. S. LINDZEY. 1973. Timberdoodling in Pennsylvania. *Pennsylvania Game News* 44 (1): 12-15.—Reports on hunting statistics, recreational value, and present status of the woodcock in Pennsylvania.—J.T.D.
- KIEL, W. H., JR., A. S. HAWKINS, AND N. G. PERRET. 1972. Waterfowl habitat trends in the aspen parkland of Manitoba. *Canadian Wildl. Serv. Rept. Ser. No.* 18: 61 pp., 14 tables, 7 figs., numerous photographs. Information Canada, Ottawa, cat. no. CW65-8/18. \$1.25.—Discusses the history, ecology, and the human impact on a large expanse of pothole country in southern Manitoba. In the face of increasing human pressures, this is an attempt to project what is best for the future of wildlife as well as man. The area is especially important to the Canvasback. The text is concentrated and the photos add much impact.—R.S.P.
- PRENO, W. L., AND R. F. LABISKY. 1971. Abundance and harvest of doves, pheasants, Bobwhites, squirrels, and cottontails in Illinois, 1956-69. *Illinois Dept. Conserv. Tech. Bull.* 4: 1-76.
- TEMPLE, S. A. 1972. Artificial insemination with imprinted birds of prey. *Nature* 237: 287-288.—A male and a female Red-tailed Hawk captured as nestlings and reared in isolation from other hawks each formed a pair bond with its human keeper. Semen collected when the male copulated with the keeper's gloved hand was introduced into the oviduct of the receptive female resulting in two fertile eggs and one young bird reared to maturity. The author suggests that this technique may enable aviculturists to maintain captive populations of some threatened birds.—W.B.R.

## MIGRATION AND ORIENTATION

- BRAY, O. E., W. C. ROYALL, JR., J. L. GUARINO, AND J. W. DE GRAZIO. 1973. Migration and seasonal distribution of Common Grackles banded in North and South Dakota. *Bird-Banding* 44: 1-12.—North Dakota *Quiscalus quiscula* range farther north in summer than conspecifics in South Dakota, and North Dakota birds tend to winter farther east than South Dakota birds. The fall migration for birds banded in both states tends to follow major river basins.—B.A.H.
- BROEKHUYSEN, G. J. 1971. Third report on migration in southern Africa. *Ostrich* 42: 211-225.—This section (continued from *Ostrich* 42: 41-61) lists numbers of observations by month and province for terns, cuckoos, nightjars, and swifts.—R.B.P.
- BROWNE, M. M., AND W. POST. 1972. Black Rails hit a television tower at Raleigh, North Carolina. *Wilson Bull.* 84: 491-492.
- DE GRELING, C. 1972. Sur les migrations et mouvements migratoires de l'avifaune éthiopienne, d'après les fluctuations saisonnières des densités de peuplement en savane soudanienne au nord Cameroun. *Oiseau* 42: 1-27.—Migrations, quite perceptible in the Sudanian savannah of northern Cameroun, are poorly known. Bird censuses were carried out in dry shrub, damp shrub, and wooded savannah. Birds were classified in trophic categories and results expressed in biomass and density. The different types of movements are explained: Migrating insectivorous birds occupy niches left by sedentary insectivorous ones; reverse migrations are caused by early rainy periods; local movements follow dry periods, and herbivores are dependent upon wet areas. (English summary.)—A.C.
- ERIKSSON, K. 1970. The autumn migration and wintering ecology of the Siskin *Carduelis spinus*. *Ornis Fennica* 47: 52-68.—Winter bird censuses of 1956-68 throughout the southern half of Finland show that small numbers of the Siskin remain in Finland every winter, but wholesale overwintering occurs when birch and spruce seeds are plentiful. This statistically very strong correlation also extends to the alder. All these trees show enormous year-to-year fluctuations in the size of the seed crop, but the peak years of all of them coincide. Thus in good food years the birch in the autumn, alder in midwinter, and spruce during the spring provide ample food for the wintering birds. These then nest close to the wintering areas. Thus wintering habits and geographic shift of breeding grounds depend on the winter food crop.—M.D.F.U.
- FISK, E. J. 1973. Fall movement and probable migrant returns of Mockingbirds in south Florida. *Bird-Banding* 44: 62.—Observations of banded *Mimus polyglottis* with ages known in many cases.—B.A.H.
- FOGDEN, M. P. L. 1972. Premigratory dehydration in the Reed Warbler *Acrocephalus scirpaceus* and water as a factor limiting migratory range. *Ibis* 114: 548-552.—Water is more likely to be limiting than fat in migratory conditions unfavorable to the water budget.—R.W.S.
- FRY, C. H., I. J. FERGUSON-LEES, AND R. J. DOWSETT. 1972. Flight muscle hypertrophy and ecophysical variation of Yellow Wagtail *Motacilla flava* races at Lake Chad. *J. Zool.* 167: 293-306.—In the last few days before Yellow Wagtails wintering in Africa leave for the Palaearctic, their weight doubles. Most of this weight increase is the result of fat deposition, but some of it is caused by an increase in the size of the *pectoralis major* and *p. minor*. The muscle change does not come from additional muscle fibers, but from an increase in fiber diameter accompanied by a small rise in intramuscular fat level. Of the 11 subspecies of *M. flava* that occur at Lake Chad in spring, 4 have more restricted habitat require-



- ments than some of the others, but showed no differences in diet. Some diet change was apparent when the birds were fattening. The longest distance migrants leave earliest and their sexual recrudescence and fattening are early.—M.H.C.
- HEINTZELMAN, D. S. 1972. Age classes of birds migrating southward through central New Jersey—autumn 1970. *EBBA News* 35: 239–244.—Relatively larger numbers of AHY (after hatching year) birds occurred; a pattern more characteristic of inland areas than of coastal stations.—A.C.V.
- KELLER, C. E. 1972. Shorebird migration at the Indianapolis sewage disposal plant. *Indiana Audubon Quart.* 50: 124–135.—An annotated list of 28 species identified during the period April 1954 through October 1969, with a brief discussion of weather influence and species abundance.—H.W.K.
- MCGRAW, K. A., M. R. SMITH, W. D. BURKE, AND G. GUNTER. 1973. Mass migration of Blue Jays along offshore Mississippi and Louisiana islands. *Mississippi Kite* 3: 2–3.—More than 1,500 dead jays per mile washed up on the beaches of the sound side of the islands.—J.A.J.
- PERSSON, C. 1972. [Short distance movements of some passerines during the fall migration in southwest Scania.] *Vår Fågelvärld* 31: 163–165.—Migrants upon landing after a heavy nocturnal flight almost invariably show a tendency to make distinct minor eastward movements. (In Swedish, English summary.)—L.DEK.L.
- PERSSON, C. 1972. [Annual cycles and autumn movements of titmice on the Falsterbo Peninsula.] *Vår Fågelvärld* 31: 167–177.—An analysis of the behavior of passerines as influenced by the migratory drive and certain geographical features, with special emphasis on titmice. (In Swedish, English summary.)—L.DEK.L.
- PERSSON, C. 1972. [Recoveries of Great Tits (*Parus major*) and Blue Tits (*Parus caeruleus*) on the Falsterbo Peninsula.] *Vår Fågelvärld* 31: 178–182.—A study of the birds' movements as revealed by 34 recoveries. (In Swedish, English summary.) L.DEK.L.
- RODEBRAND, S. 1972. The migration through Kalmar Sound 1962 and 1963. Report from Ottenby Bird Station No 59. *Vår Fågelvärld* 31: 247–251.—Tables and graphs illustrate the paper. One *Gavia immer* and an *Anthus novaeseelandiae* were the most notable rarities. (In Swedish, English summary.)—L.DEK.L.
- ROMERO, F. S., AND A. ROMERO. 1971. Spring arrival date for Broad-winged Hawk in Oklahoma. *Bull. Oklahoma Ornithol. Soc.* 4: 16–17.
- ROUX, F., AND A. DUPUY. 1972. L'hivernage de la Cigogne noire en Afrique occidentale. *Oiseau* 42: 61–65.—In a mid-January wildfowl aerial census in the area of the Delta of Senegal, *Ciconia nigra* was found in this previously unknown winter range, in relatively large numbers (16) compared to the small populations of western Europe.—A.C.
- SALOMONSEN, F. 1971. Recoveries in Greenland of birds ringed abroad. *Meddelelser om Grønland, Komm. for Videnskabelige Undersøgelser I Grønland.* 191 (2): 1–52.—Detailed records for over 600 recoveries of 28 species. The largest numbers are 298 *Rissa tridactyla* from Europe and 174 *Uria lomvia*, 120 from Canada and 34 from Europe. Other recoveries from the New World include 5 of 10 *Fulmarus glacialis* (northern Canada), a *Branta canadensis* (Ontario), 2 *Falco peregrinus* (Maryland), 5 *Pagophila eburnea* (n. Canada), 4 *Plectrophenax nivalis* (Michigan). All other recoveries are of birds banded in the European region except for 3 (of 4 recovered) *Puffinus gravis* from Tristan da Cunha in the South Atlantic, and a *Charadrius hiaticula* from Senegal.—J.P.H.
- SALOMONSEN, F. 1971. Tolvte foreløbige liste over genfundne grønlandske ringfugle. *Dansk Ornithol. Foren. Tids.* 65: 11–19.—Details some 120 1963–1970 foreign recoveries of 11 species banded in Greenland. These include 57 *Uria lomvia* recovered

- in Newfoundland waters, 3 *Somateria spectabilis* in the Northwestern Territories, and 3 *Plectrophenax nivalis* in eastern Canada. All other recoveries were in the Old World, including 39 *Branta leucopsis* and 10 *Anser albifrons* in Iceland and the British Isles, a *Gavia stellata* in France, a *Fulmarus glacialis* in Portugal, and two *Sterna paradisaea* in southern Africa and one in France.—J.P.H.
- STEVENSON, H. M. 1973. Migration of the Blue Jay in the southeastern United States. *Florida Field Naturalist* 1: 9–13.
- SWEGEN, H. 1972. [The visual overland migration of the Eider (*Somateria mollissima*) in southern Sweden.] *Vår Fågelvärld* 31: 183–190.—Summarizes observations of 25 years. Discussion of the incentive to cross land is of special interest. (In Swedish, English summary.)—L.DEK.L.
- TREE, A. J. 1971. Notes on palaeartic migrants in the eastern cape. *Ostrich* 42: 198–204.—Observations mainly at Grahamstown and Bathurst District on 32 species, with special reference to shorebirds.—R.B.P.
- TREE, A. J. 1972. Mass wintering of palaeartic waders at Lake Ngami, Botswana, in 1970. *Ostrich* 43: 139.
- WOELLER, R. L. 1971. The effect of weather on the migration of shorebirds common to the eastern shore of Lake Ontario. *Kingbird* 21: 117–129.

## MISCELLANEOUS

- ALFORD, J. R., AND E. G. BOLEN. 1972. A note on Golden Eagle talon wounds. *Wilson Bull.* 84: 487–489.
- ANDERSON, V. L., AND W. ANDERSON. 1972. The Murrelet's secret. *Pacific Discovery* 25 (3): 25–26.—Series of accounts concerning possible nesting sites of the Marbled Murrelet (*Brachyramphus marmoratum*).—J.T.D.
- BAUER, E. A. 1972. Hawaiian islands national wildlife refuge. *Sea Frontiers* 18: 346–356.—Describes Americas' "Bird Islands."—J.T.D.
- BENSON, C. W. 1971. Quelques spécimens anciens de *Podiceps ruficollis* (Pallas) provenant de Madagascar et des Comores. *Oiseau* 41: 89–93—Presents information on old museum specimens of the Little Grebe, birds reported by Voous and Payne (1965).—A.C.
- BOECKER, M. 1972. Über den Wert von Laienaussagen bei ornithologischen Untersuchungen, dargestellt am Beispiel der Tannenhäher-Invasion 1968–1969. *Vogelwelt* 93: 2–11.—On the value of the findings of laymen in ornithological research as demonstrated with the *Nucifraga caryocatactus* invasion in 1968–1969. (English summary.)—N.A.M.V.
- BRAXTON, D. 1971. Macquarie Island. *Sea Frontiers* 17: 224–229.—Describes a most unusual wildlife sanctuary, located about 1,000 miles southeast of Tasmania, in the South Pacific. The island supports nearly a million Royal Penguins, thousands of other birds (Sooty Albatrosses, Sooty Shearwaters or Muttonbirds, and New Zealand Wekas), and many sea lions and sea elephants.—J.T.D.
- BREEDEN, K., AND S. BREEDEN. 1973. Eden in the outback. *Natl. Geogr.* 143: 188–203.—Essay of plant and animal life in Australia's North End. Includes rare photo of Rainbow Pitta (*Pitta iris*) feeding its young.—J.T.D.
- BROOKS, W. S. 1973. A tentative key for sex determination of Common Redpolls (*Acanthis flammea flammea*) in the northern United States during winter. *Bird-Banding* 44: 13–21.—Presents a key that uses mensural and color characters. The author notes that about 8% misidentification will occur.—B.A.H.
- BUECHNER, H. K., F. C. CRAIGHEAD, JR., J. J. CRAIGHEAD, AND C. E. COTE. 1971. Satellites for research on free-roaming animals. *BioScience* 21: 1201–1205.—An

- enthusiastic appraisal of the research potential of data collection by earth-orbiting satellite. The best present systems can locate an instrumented animal within 1.5 km and record physiological data and environmental conditions, either continuously or several times daily. The burr in the ointment for ornithologists is that the lightest electronic package for attachment to the animal weighs 450 g, eliminating its use on any but the largest flying birds. Technology advances, and the authors note that a 50 g instrument package is on the drawing board. Still another order of magnitude weight reduction is needed, however, to adapt the technique to a wide range of ornithological problems.—W.B.R.
- BURNETT, C. 1970. Magnolia Warbler caught in burrs. *Kingbird* 20: 73.—Do native songbirds lack an evolved pattern of avoidance for the exotic common burdock (*Arctium minus*)?—M.C.B.
- CHRISTENSEN, S., B. P. NIELSEN, R. F. PORTER, AND I. WILLIS. 1972. Flight identification of European raptors. *Brit. Birds* 65: 411-423.—This fifth paper of a series discusses the vultures; drawings and photos.—H.B.
- COWLES, R. B. 1972. Mesquite and mistletoe. *Pacific Discovery* 25 (3): 19-24.—Describes seed dispersal of desert plants by the House Finch (*Carpodacus mexicanus*), Silky Flycatcher (*Phainopepla nitens*), Mockingbird (*Mimus polyglottus*), Gambel Quail (*Lophortyx gambelii*), and other ground-feeders.—J.T.D.
- DOUGHTY, R. W. 1971. San Francisco's nineteenth century egg basket: the Faralons. *Geogr. Rev.* 61: 554-572.—A brief history of eggging, bird populations, and conservation on these ocean islands 25 miles west of San Francisco.—G.E.W.
- EASTERLA, D. A., AND R. H. WAUER. 1972. Bronzed Cowbird in west Texas and two bill abnormalities. *Southwestern Naturalist* 17: 293-295.—The first specimen of *Tangavius aeneus* collected in west Texas had a deformed bill. Discusses also the deformed bill of a Pyrrhuloxia.—J.J.D.
- ECKHARDT, R. C. 1972. Introduced plants and animals in the Galápagos Islands. *BioScience* 22: 585-590.—Aggressive exotic plants (especially guava) and mammals (goats, pigs, dogs, *Rattus*) have severely stressed the native biota, including many birds, and the problem seems to be getting worse.—W.B.R.
- ERIKSSON, K. 1970. Development of ornithological activity in Finland and its effect on the number of records. *Ornis Fennica* 47: 20-29.—Observations and banding activities by ornithologists increased considerably during the 1950s and 1960s. (In Finnish, English summary.)—M.D.F.U.
- HAARMANN, K., AND G. RADACH. 1972. Die Entwicklung von Verbreitungskarten für Vögel in Hamburg. *Vogelwelt* 93: 11-17.—Report on a method of making distribution maps of nesting birds using a computer. (English summary.)—N.A.M.V.
- HYTYÄ, K. 1970. Ornithological activity and the number of observations. *Ornis Fennica* 47: 83-86.—The number of bird observations does not show a linear correlation to the number of observers. Although variable competence causes negligible error, the interference of observers with one another causes a bias that increases with the number of observers. (English summary.)—M.D.F.U.
- KILHAM, L. 1972. Retention of egg in a wild Downy Woodpecker. *Wilson Bull.* 84: 493-494.
- LEONARD, P. C. 1972. The plundered plumes. *Pacific Discovery* 25 (1): 15-22.—Interesting discussion of the use and abuse of feathers during the height of Aztec, Mayan, and Incan empires. Includes a half-page photograph of the Quetzal (*Pharomachrus m. mocinno*).—J.T.D.
- LOCKYER, N. F., C. P. STONE, AND J. L. GUARINO. 1973. A device for removing birds from nest boxes. *Bird-Banding* 44: 56-57.
- MATHISEN, J. E. 1969. Identification of Bald Eagle and Osprey nests in Minnesota.

- IBBA News 41: 21-23.—Examination of 150 eagle and 100 Osprey nests in Chipewewa National Forest.—D.M.F.
- POST, W. 1973. Some encounters between birds and pelecypods. *Bird-Banding* 44: 65.—Consider the subject closed.—B.A.H.
- RICKLEFS, R. E. 1973. Tattooing nestlings for individual recognition. *Bird-Banding* 44: 63.
- RYAN, L. S. 1969. Sexing Purple Finches. *IBBA News* 41: 123-125.—Wing cord length is not a reliable method for separating brown plumage males from female *Carpododacus purpureus*.—D.M.F.
- SALOMONSEN, F. 1970. Birds useful to man in Greenland. Reprinted from a conference held at Edmonton, Alta., 15-17 October 1969, *Productivity and Conservation in Northern Circumpolar Lands*. Proc., paper 19 (pp. 169-175).—Most important is the Thick-billed Murre (*Uria lomvia*), with about 750,000 birds and 10,000 or more eggs taken annually for food. The Common Eider (*Somateria mollissima*) is also important, with 144,000 birds (1948-51 figures), some 10,000 eggs, and the down from many deserted nests taken each year. Other species affected in lesser numbers include *Gavia stellata*, *Fulmarus glacialis*, *Puffinus gravis*, 10 other species of ducks and geese, *Calidris maritima*, *Stercorarius parasiticus*, 4 gulls and a tern, and 4 other alcids, all of which provide food. Predator control affects *Haliaeetus albicilla*, *Falco peregrinus*, *F. rusticolus*, and *Corvus corax*, while some small passerines are killed by mischievous youths. Discusses various aspects of the uses of birds and their effects on numbers, along with wintering areas of banded Greenland birds and protection statutes and their enforcement.—J.P.H.
- SCHERRER, B., AND A. DESCHAINTRE. 1970. Evaluation de l'effectif d'une colonie d'Hirondelles de rivage (*Riparia riparia*) par la méthode des captures et recaptures. *Jean-Le-Blanc* 9: 36-42.
- SCHÖNWETTER, M. continued and completed by W. MEISE. 1970-1972. *Handbuch der Oologie*. Lief. 17, 18, 19, 20, pp. 193-448. Akademie-Verlag, 108 Berlin, Germany. Price per part of 64 pp. (each with one color plate) 14 German marks.—Lief. 17 concludes the Hirundinidae, includes Motacillidae and Campephagidae, and begins Pycnonotidae; Lief. 18 concludes Pycnonotidae, includes Irenidae and Laniidae and begins Vangidae; Lief. 19 concludes Vangidae, includes Bombycillidae (with Ptylogonatinæ and Hypocoliinae), Dulidae, Cinclidae, Troglodytidae, Mimidae, Prunellidae and begins Turdidae; Lief. 20 continues Turdidae. Nomenclature and sequence follow the "Check-list of birds of the world."—E.E.

#### PHYSIOLOGY

- ALM, G. V., AND D. A. PETERSON. 1971. Anaemia in bursectomized irradiated chickens. *Nature* 229: 201-202.—By various blood counts chicks ( $n = 17$ ) that were bursectomized and given 600 roentgens of X-irradiation at hatching were significantly (most  $P < 0.001$ ) more anaemic at 8 weeks of age than were controls that got X-rays only.—W.B.R.
- BARNETT, L. B. 1970. Seasonal changes in temperature acclimation of the House Sparrow, *Passer domesticus*. *Comp. Biochem. Physiol.* 33: 559-578.—Temperature tolerance was greatest in January and least in August. Loss of tolerance was gradual in spring but rapid in fall. Weight of body feathers increased 70% following molt. Fatty acids were more unsaturated in winter than in summer.—C.M.W.
- BENNETT, T. 1970. Interaction of nerve-mediated excitation and inhibition of single smooth muscle cells of the avian gizzard. *Comp. Biochem. Physiol.* 32: 669-680.

- BENOWITZ, L. 1972. Effects of forebrain ablations on avoidance learning in chicks. *Physiol. and Behav.* 9: 601-608.
- BORRETT, R. P. 1972. Fat deposition in *Oriolus auratus* in Rhodesia. *Ostrich* 43: 64.—Two in April were fat.—R.B.P.
- BRETZ, W. L., AND K. SCHMIDT-KNIELSEN. 1972. The movement of gas in the respiratory system of the duck. *J. Exp. Biol.* 56: 57-65.—Mass spectrometer experiments provide additional evidence that the avian respiratory system is a 2-cycle pump. Air passes to the posterior sacs on first inspiration, to exchange surfaces on first exhalation, to anterior sacs on second inspiration and out on second exhalation.—A.S.G.
- CAIN, B. 1972. Cold hardiness and the development of homeothermy in young Black-bellied Tree Ducks. *Wilson Bull.* 84: 483-485.
- CALDER, W. A. 1970. Respiration during song in the canary (*Serinus canaria*). *Comp. Biochem. Physiol.* 32: 251-258.—A 1:1 ratio shown between song notes and respiratory movements. Duration of singing need not be limited by the volume of presong inspiration, rather by the composition of the air after shallow exchanges that must be predominantly of dead-space air.—C.M.W.
- CALDER, W. A., AND J. R. KING. 1972. Body weight and energetics of temperature regulation: a re-examination. *J. Exp. Biol.* 56: 775-780.—The Newtonian model of heat loss from homiotherms may remain as a useful approximation of the thermoregulatory relationships and as a practical basis for comparison of species from laboratory responses. The validity of this, however, has not been established or furthered by the theoretical treatment (McNab's) that is re-analyzed in this paper. (Authors' summary.)—A.S.G.
- CANDLISH, J. K. 1970. The urinary excretion of calcium, hydroxyproline and uronic acids in the laying fowl after the administration of parathyroid extract. *Comp. Biochem. Physiol.* 32: 703-707.—Results indicate that the parathyroid hormone actively stimulates lysis of all the major structural constituents of bone.—C.M.W.
- DORST, J. 1972. Poids relatif du coeur chez quelques oiseaux des hautes Andes du Pérou. *Oiseau* 42: 66-73.—Relative heart weight is significantly greater in birds living above 3,800 m altitude. Some species with a lesser activity rate have a heart weight smaller than but comparable to those living at lower levels, while passerine birds usually have a greater heart weight, but with significant differences within a single family. (English summary.)—A.C.
- ENSOR, D. M., AND J. G. PHILLIPS. 1972. The effect of age and environment on extrarenal salt excretion in juvenile gulls (*Larus argentatus* and *L. fuscus*). *J. Zool.* 168: 119-126.—Young gulls from a marine colony with no access to freshwater had heavier nasal glands and a greater ability to excrete a hypertonic salt load than did birds from an inland colony. These differences disappeared after both groups had been on a freshwater diet for 4 weeks.—M.H.C.
- ENSOR, D. M., AND J. G. PHILLIPS. 1972. The effect of dehydration on salt and water balance in gulls (*Larus argentatus* and *L. fuscus*). *J. Zool.* 168: 127-137.—Dehydration was produced by hypersalinity, heat, and water deprivation; it resulted in a significant decrease in pituitary prolactin levels. The water balance of the extracellular fluid "compartment" was protected at the expense of the tissue "compartment." Discussion of the ecological significance, particularly in relation to the natural dehydration experienced during parts of the breeding cycle.—M.H.C.
- EVANS, J. H. 1972. A method of recording the heart rate of the chicken embryo. *Physiol. and Behav.* 9: 131-132.
- FREEMAN, B. M. 1970. Thermoregulatory mechanisms of the neonate fowl. *Comp. Biochem. Physiol.* 33: 219-230.—Shivering can be elicited in the neonate fowl.

- Propranolol impaired the thermogenic response. The thyroid may be concerned in the thermogenic response.—C.M.W.
- FREEMAN, B. M. 1970. The effects of adreno corticotrophic hormone on adrenal weight and adrenal ascorbic acid in the normal and bursectomized fowl. *Comp. Biochem. Physiol.* 32: 755-761.
- FRIEDEN, E. 1972. The chemical elements of life. *Sci. Amer.* 227 (1): 52-57, 59-60.—Research adds fluorine, silicon, tin, and vanadium to the list of 20 natural elements of life. The author reports that E. M. Carlisle of the School of Public Health at UCLA has found that chicks maintained on a silicon-free diet for 1 or 2 weeks showed poor development of the feathers and skeleton. Normal feathers and skeletal growth ensued after the addition of 30 ppm of silicon to the diet; growth increased more than 35%. Also, nickel was found to influence growth of wing and tail feathers in chicks.—J.T.D.
- HAASE, E., AND D. S. FARNER. 1972. The behavior of acetylcholinesterase cells of the anterior pituitary gland of artificially photostimulated female White-crowned Sparrows. *J. Exp. Zool.* 181: 63-68.—Additional evidence that "acetylcholinesterase cells" in the pars distalis of the pituitary of *Zonotrichia leucophrys* are gonadotropes.—A.S.G.
- HEMMINGSSEN, E. A., AND E. L. DOUGLAS. 1970. Ultraviolet radiation thresholds for corneal injury in antarctic and temperate-zone animals. *Comp. Biochem. Physiol.* 32: 593-600.—Several species of birds were tested. Antarctic birds were less sensitive to corneal damage by UV radiation than were domestic birds. This may be important as protection against snow blindness.—C.M.W.
- HOMMA, K., W. O. WILSON, AND T. D. SIOPEX. 1972. Eyes have a role in photoperiodic control of sexual activity of *Coturnix*. *Science* 178: 421-423.—*Coturnix c. japonica* reared at 6 to 8 hours light per day and blinded at 5 to 7 weeks of age responded typically (egg-laying by 10 females, active cloacal gland in 16 males) to increased light, but their gonadal activity continued when they were returned to short days. Six females reared to maturity under continuous light and then blinded responded to both long and short days in the same way as intact controls. Blinded birds get enough photoperiod information from long days to initiate sexual activity, but they do not stop sexual activity under short days unless they had experienced long days before they were blinded.—W.B.R.
- HUGHES, M. R. 1970. Flow rate and cation concentration in salt gland secretion of the Glaucous-winged Gull, *Larus glaucescens*. *Comp. Biochem. Physiol.* 32: 807-812.—Na concentration was positively correlated with salt gland secretion flow rate; K concentrations were negatively correlated. The slope of the Na regression line was little affected by drinking-water salinity, while that of K was greatly steepened.—C.M.W.
- HUGHES, M. R. 1970. Cloacal and salt-gland ion excretion in the seagull, *Larus glaucescens*, acclimated to increasing concentrations of sea water. *Comp. Biochem. Physiol.* 32: 315-325.—Major portion of ingested Na and K may be extrarenally excreted even in the absence of imposed osmotic stress, and cation concentration in the salt-gland secretion is dependent upon the magnitude of the osmotic stress.—C.M.W.
- JONES, D. R., AND G. F. HOLETON. 1972. Cardiovascular and respiratory responses of ducks to progressive hypocapnic hypoxia. *J. Exp. Biol.* 56: 567-666.
- KREY, H. P., F. W. EDENS, AND P. B. SIEGEL. 1970. Uterovaginal sperm-host gland homogenates and respiratory rate of cock spermatozoa. *Comp. Biochem. Physiol.* 32: 49-54.
- LESHNER, A. I., V. A. LITWIN, AND R. L. SQUIBB. 1972. A simple method for car-

- cass analysis. *Physiol. and Behav.* 9: 281-282.—Carcass water, fat, and protein determinations made easy for those prone to grinding up birds.—J.A.J.
- LEWIS, R. W. 1969. Distribution of dietary squalene in a Wandering Albatross, *Diomedea exultans* [sic]. *Nature* 224: 1220-1221.—Squalene, a sterol precursor rarely found in large concentrations, made up 8.6% of the stomach oil of this specimen and occurred in high concentrations in all tissues except the brain. Despite the large excess of squalene, cholesterol content was well within ranges reported for similar tissues of other animals.—W.B.R.
- MAXWELL, G. R., II, AND R. DiCAPRIO. 1972. Laboratory maintenance of Tree Sparrows. *Kingbird* 22: 8-17.—*Spizella arborea* best maintained body weight when fed sunflower seed or commercial mixed feed. The birds were selective in their consumption of the components of the mix. Body weight was not maintained on corn or millet. About the same amounts of food were consumed per day irrespective of the type of grain.—M.C.B.
- MCNABB, F. M. A., AND T. L. POULSON. 1970. Uric acid excretion in pigeons, *Columbia livia*. *Comp. Biochem. Physiol.* 33: 933-939.—Data support the assumption that uric acid makes little contribution to urine osmotic pressure and that colloidal urates do not account for a large proportion of the uric acid in birds.—C.M.W.
- SAWYER, R. H. 1972. Avian scale development. 2. A study of cell proliferation. *J. Exp. Zool.* 181: 385-407.—Spatial and temporal distribution of DNA synthesis and cell cycle duration change.—A.S.G.
- SCHMIDT-NIELSON, K. 1971. How birds breathe. *Sci. Amer.* 225 (6): 72-79.—Tests involving tracers show that a continual flow of air passes through (not in and out) a birds' lung, and on into large, smooth-walled air sacs and hollow bones.—J.T.D.
- SCHRAM, A. C. 1970. Serum proteins of the domestic goose *Anser anser*. *Comp. Biochem. Physiol.* 32: 81-87.
- SHAUGHNESSY, P. D. 1970. Serum proteins of two sibling species of giant petrel (*Macronectes* spp.). *Comp. Biochem. Physiol.* 33: 721-723.—Serum proteins were examined and the mobilities of transferrins, albumin and a haem-binding protein were identical in both *M. giganteus* and *M. halli*, suggesting they are very similar genetically.—C.M.W.
- SMITH, J. E., AND K. L. DIEM. 1972. Growth and development of young California Gulls (*Larus californicus*). *Condor* 74: 462-470.
- TEAL, J. M. 1969. Direct measurement of CO<sub>2</sub> production during flight in small birds. *Zoologica* 54: 17-23. Carbon dioxide production during flight and rest was measured in 16 individuals of 13 species. Individuals flew back and forth in a plastic tube inflated by air pressure. The average nonflying CO<sub>2</sub> production was 5.4 ml/g hour while the average flying rate was 10 times the nonflying rate.—W.K.T.
- TUCKER, V. A. 1971. Flight energetics in birds. *Amer. Zool.* 11: 115-124.—A review of energetics for flight loaded with lovely equations. Estimates based on indirect calorimetry indicate that the maximum flight distance of birds is directly proportional to body mass raised to the 0.227 power. Suggests that birds have a small margin of safety in long overwater flights unless aided by winds or air currents.—C.M.W.
- TWIEST, G., AND C. J. SMITH. 1970. Circadian rhythm in blood glucose level of chickens. *Comp. Biochem. Physiol.* 32: 371-375.—A significant difference in blood glucose levels of domestic chickens exists during hours of darkness and light.—C.M.W.

- WEIS-FOGH, T. 1972. Energetics of hovering flight in hummingbirds and in *Drosophila*. *J. Exp. Biol.* 56: 79-104.
- ZIMMERMAN, J. L., AND J. V. MORRISON. 1972. Vernal testes development in tropical-wintering Dickcissels. *Wilson Bull.* 84: 475-481.

## TAXONOMY AND PALEONTOLOGY

- ALDRICH, J. 1972. A new subspecies of Sandhill Crane from Mississippi. *Proc. Biol. Soc. Washington* 85: 63-70. *Grus canadensis pulla* is described from 8 living birds of unknown sex reared at the Patuxent Wildlife Research Center, 1 study skin of an immature female that was raised at Patuxent, and study skins of 4 downy young. Though the author states that "comparisons of the range of measurements of the Mississippi birds of both sexes combined with the ranges known for breeding populations of previously described subspecies are indicative of major differences in overall size or in proportions," he later admits that "Florida and Mississippi sandhills are quite similar in size and proportions." In fact, the measurements of wing and bill given for *G. c. pulla* are entirely within the range of measurements given for *G. c. pratensis*. The range of tarsus length measurements is 216-258 for *pulla* and 218-274 for *pratensis*. No statistical analysis of the data was used—or needed. The major difference between *pulla* and *pratensis* is that the Mississippi cranes are "much darker." Color comparisons were made by the author walking among a penned group of cranes of mixed geographic origin and examining the plumage at close hand. A trend toward darker birds in north Florida is noted. While these birds do represent the only population of Sandhill Cranes breeding on the Gulf Coast west of Florida, the description of the Mississippi Sandhill Crane may serve only the bureaucratic function of providing another taxon to declare endangered. This may be good.—J.A.J.
- ALLEN, R. T., AND F. C. JAMES (Eds.). 1972. A symposium on ecosystematics. *Occ. Pap. No. 4. Univ. Arkansas Mus., Fayetteville.* viii + 235 pp. (\$3.00).
- BOEHM, L. G., AND M. R. IRWIN. 1970. Genetic polymorphisms of esterase isozymes of the plasma in two species of doves, their hybrids and backcross hybrids, and in other species of Columbidae. *Comp. Biochem. Physiol.* 32: 377-386.—*Streptopelia senegalensis* was compared to *S. risoria*. Hybrids showed overlapping bands in the fast regions of isozymes. Patterns of esterase in 6 species of *Streptopelia*, 6 of *Columba*, and 7 species of 6 other genera of Columbidae may be distinguished from each other.—C.M.W.
- BRUSH, A. H., AND D. M. POWER. 1970. Electrophoretic studies on hemoglobins of Brewer's blackbird *Euphagus cyanocephalus*. *Comp. Biochem. Physiol.* 33: 587-599.—Polymorphisms were not present in hemoglobins but the hemoglobins were present as a multiple molecular system.—C.M.W.
- CRACRAFT, J. 1972. The relationships of the higher taxa of birds: Problems in phylogenetic reasoning. *Condor* 74: 379-392.
- DUPONT, J. E. 1972. Notes from western Samoa, including the description of a new parrot-finch (*Erythrura*). *Wilson Bull.* 84: 375-376.
- FEDUCCIA, A. 1972. The Pleistocene avifauna of Klein Cave, Kerr County, Texas. *Southwestern Naturalist* 17: 295-296.—All nine forms identified still occur in the area.—J.J.D.
- GARRIDO, O. H. 1971. Una nueva subespecie del *Vireo gundlachi* (Aves: Vireonidae) para Cuba. *Poeyana No. 81*, 8 pp.—Describes *V. g. magnus* (n = 10), a long-winged form from Cayo Cantiles, and revives *V. g. orientalis* Todd for the Thick-billed Vireos of eastern Cuba.—W.B.R.



- GARRIDO, O. H. 1971. Variacion del genero monotipico *Xiphidio-picus* (Aves: Picidae) en Cuba. Poeyana No. 83, 12 pp.—Describes two new subspecies of the Cuban Green Woodpecker. *X. percussus monticola* (n = 13) is a large, brightly colored form from eastern Oriente Province. *X. p. gloriae* (n = 9) from Cayo Cantiles off the south coast is small and dull-plumaged most nearly resembling birds of the Isle of Pines.—W.B.R.
- GARRIDO, O. H. 1971. La Bijirita del Pinar *Dendroica pithyophila* (Gundlach). Poeyana No. 84, 16 pp.—Study of recently collected series confirms earlier opinion that the widely disjunct populations of the Olive-capped Warbler in western Cuba, eastern Cuba, and the northern Bahamas vary so little in size and color that no subspecies are worth naming. The species is limited to pine forest but its ecology is otherwise little known. History of the species—particularly its unexplained absence from the Isle of Pines and from pine-forested islands of the Great Bahama Bank—remains enigmatic.—W.B.R.
- GARRIDO, O. H. 1971. Nueva raza del Arriero, *Saurothera merlini* (Aves: Cuculidae), para Cuba. Poeyana No. 87, 12 pp.—*S. m. santamariae* (n = 3) from Cayo Santa Maria off the central north coast is a small, pallid form with a large bill.—W.B.R.
- GINGERICK, P. D. 1972. A new partial mandible of *Ichthyornis*. Condor 74: 471–473.
- GUILDAY, J. E., AND P. W. PARMALEE. 1971. Thirteen-lined ground squirrel, prairie chicken and other vertebrates from an archaeological site in northeastern Arkansas. Amer. Midl. Naturalist 86: 227–229.—Two *Tympanuchus cupido* identified from site dated from 900–1300 A.D. Associated vertebrates included 28 bird species.—G.D.S.
- HEPTONSTALL, W. B. 1972. The flight of fossil vertebrates. Fauna 2 (4): 9–16.—Treats flight dynamics of *Archaeopteryx* and *Pteranodon* in detail. Excellent illustrations; includes full-page color photograph of Berlin Museum specimen *Archaeopteryx lithographica*.—J.T.D.
- KALAR, Z. 1970. Ueber die Klassifikation in der Ornithologie des Aristoteles. Acta Class. Univ. Scient. Debrecen 6: 27–33.—Aristotle (Part. Anim. I.2.642.5 sqq.) sharply criticized those who applied the wrong dichotomous classification to birds, viz. when they classified land and aquatic animals according to their abode and habits rather than by their anatomical structure. Such a classification groups birds with other animals in the categories of land, air, and water dwellers and ignores the “genos” of birds. Aristotle elaborated his own system to remedy this discrepancy. Though his works do not present a completely uniform system of avian systematics, it is evident that he strived to classify animals on the basis of morphological construction and the habits associated with this construction. For example, he discussed birds of prey with predatory feet living mainly in the air, and aquatic birds with webbed feet living mainly in the water, etc.—thus he seemed to recognize the great systematic value of correlations of structure, behavior, and environment. (In German, with Hungarian abstract.)—M.D.F.U.
- KAHL, M. P. 1972. A revision of the family Ciconiidae (Aves). J. Zool. 167: 451–461.—With strong reliance on his earlier behavioral studies, the author divides the storks into 3 tribes, 6 genera, and 17 species. The following (Peters) genera are synonymized: *Ibis* is regarded as part of *Mycteria*; *Sphenorhynchus*, *Dissoura*, and *Euxenura* as *Ciconia*; and *Xenorhynchus* as *Ephippiorhynchus*. *Scopus* is placed in a suborder of its own, and *Balaeniceps* in a monotypic family adjacent to the storks, both pending further study.—M.H.C.
- MITKOLA, K. 1970. Identification of albino Herring Gulls *Larus argentatus*. Ornis Fennica 47: 172–176.

- NOBREGA, F. G., J. C. C. MAIA, W. COLLI, AND PH. H. SALDANHA. 1970. Heterogeneity of erythrocyte glucose-6-phosphate dehydrogenase (G6PD, E.C. 1.1.1.49) activity and electrophoretic patterns among representatives of different classes of vertebrates. *Comp. Biochem. Physiol.* 33: 191-199.—Birds from the orders Columbiformes, Anseriformes, Falconiformes, Galliformes, Gruiformes, and Piciformes were compared to other vertebrates. All birds tested had a single-band pattern except domestic chicken and the Toucan (*Rhamphastus toco*). The pattern of the dehydrogenase is not correlated to the phylogenetic position of the species.—C.M.W.
- OLSEN, S. L. 1972. The generic distinction of the Hispaniolan Woodpecker, *Chryserpes striatus* (Aves: Picidae). *Proc. Biol. Soc. Washington* 85: 499-508.—The two endemic Antillean picids, *Chryserpes* and *Xiphidiopicus*, are phylogenetically closer to each other than either is to any mainland form, as evidenced by certain osteological and plumage features. This opposes recent suggestions that *Chryserpes* is a member of the *Centurus* group.—G.E.W.
- POWER, D. M. 1972. Numbers of bird species on the California islands. *Evolution* 26: 451-463—Treats certain variables by multiple regression analysis, and presents a path diagram model in an attempt to explain statistically the number of land bird species on the California coastal islands. Within this framework, 67% of the avian diversity is accounted for by numbers of native plant species present, 14% by degree of isolation, and 19% by unknown factors. The number of plant species present is determined largely by the size of the island, and to a lesser extent by latitude and unknown factors. Thus the usually larger islands supporting a rich flora tend to support a larger avifauna. But "there is a continuing need for basic, descriptive papers on island biology, hopefully in numerical superiority to the synthetic and theoretical studies which must be based on solid data" (p. 461)!—L.L.S.
- ROSS, G. J. B., AND R. A. R. BLACK. 1972. Comments on the South African races of *Falco peregrinus*. *Ostrich* 43: 135-136.—*F. p. wallichensis* is not distinguishable from *F. p. minor*, rather than being a synonym of *F. p. brokei*. South African records of *wallichensis* and *brookei* should be disregarded; the single specimen available is *F. p. minor*.—R.B.P.
- SCHWARTZ, P. 1972. *Micrastur gilvicollis*, a valid species sympatric with *M. ruficollis* in Amazonia. *Condor* 74: 399-415.
- SIBLEY, C. G., AND C. FRELIN. 1972. The egg white protein evidence for ratite affinities. *Ibis* 114: 377-387.—Good review of the ratite problem with details of new avian protein technique of acryamide gel isoelectric focusing. Recommends inclusion of *Struthio*, *Casuarius*, *Dromaius*, and *Rhea* in a single order; Kiwis should be Apterygiformes next to Tinamiformes which should be placed near the Galliformes. Authors adopt "flexible position" on relative position of Tinamous and Kiwis and await further data on these relationships.—R.W.S.
- VAURIE, C. 1970. Notes systématiques sur des Furnariidés rares des genres *Pholidor* et *Xenerpestes*, et parallélisme de la forme du bec au "type *Xenops*." *Oiseau* 41: 117-126.—A critical systematic and taxonomic discussion.—A.C.
- VOOUS, K. H. 1972. Intermediate scoter. *Ardea* 60: 128-129.—Intermediate between *Melanitta nigra nigra* and *M. nigra americana*. Breeding ranges not known to overlap but suspected.—N.A.M.V.
- WATTEL, J. 1971. The subspecies of *Fringilla coelebs* L. inhabiting the Cape Peninsula. *Ostrich* 42: 229.—Chaffinches were introduced about 1900 from England, where the subspecies *F. c. gengleri* is recognized. Examination of four males from the Cape Peninsula shows they are *F. c. gengleri*, not the European continental form *F. c. coelebs*.—R.B.P.

- WINTERBOTTOM, J. M. 1972. Systematic notes on birds of the Cape Province. 31. A further note on *Calandrella sclateri*. Ostrich 43: 133.—*C. s. capensis* is synonym of *C. s. sclateri*; the other Cape race is *C. s. theresae* of Bushmanland.—R.B.P.
- WINTERBOTTOM, J. M. 1972. Comments on the superspecies concept. Ibis 114: 401-403.—Followed by comments by B. P. Hall.—R.W.S.

**A note of thanks.**—The Periodical Literature section would not be possible without the loyal volunteer service of many A.O.U. members. The following persons assisted in preparing this section of Volume 90 of *The Auk*: Oliver L. Austin, Jr., Wilson W. Baker, Lawrence C. Binford, Charles R. Blem, Margaret C. Bowman, Hervey Brackbill, Andre Cyr, Mary H. Clench, William D. Courser, Jeffery T. Davis, James J. Dinsmore, Eugene Eisenmann, Roger M. Evans, Leigh H. Frederickson, Dennis M. Forsythe, Robert K. Furrer, Abbot S. Gaunt, Sandra L. L. Gaunt, Frank G. Gill, John W. Hardy, Brian A. Harrington, Hildegard Howard, John P. Hubbard, Jerome A. Jackson, Joseph R. Jehl, Louise de K. Lawrence, Fred E. Lohrer, Jay J. Mahoney, Helmut C. Mueller, Bertram G. Murray, Jr., Robert W. Nero, David M. Niles, John C. Ogden, Ralph S. Palmer, Kenneth C. Parkes, Robert B. Payne, Eloise F. Potter, James D. Rising, William B. Robertson, Jr., M. Kent Rylander, Gary D. Schnell, Ralph W. Schreiber, Lester L. Short, Robert Sutherland, Carole F. Sumner, Walter K. Taylor, Miklos D. F. Udyardy, Aldeen C. Van Velzen, W. Ted Van Velzen, Nicholas A. M. Verbeek, Alexander Wetmore, Clayton M. White, Glen E. Woolfenden.

## OBITUARIES

ROBERT ELWYN BAILEY, who made significant contributions to our understanding of the physiology and hormonal controls of incubation patches, died of a coronary occlusion in East Ely, Nevada, on June 30, 1965. He was born in Southern Pines, North Carolina, on March 14, 1925, and spent his childhood years there. After service in the U.S. Army he completed his A.B. degree at Santa Barbara College in 1948, and undertook graduate study in zoology at the University of California, Berkeley, in the same year. His doctoral study of the incubation patch in passerine birds was completed in 1951, under the direction of Oliver P. Pearson. The following year he spent as a Research Fellow in the Division of Anatomy and Institute of Experimental Biology on the same campus.

Subsequently Bob accepted a faculty position at the University of Tennessee Medical College in Memphis, where he earned an M.D. degree, awarded in 1959. He settled in White Pine County, Nevada, and was licensed for general practice in that state in 1961. He was highly regarded in his community, frequently lecturing on sex education in the public schools, and serving on a statewide board for the hiring of handicapped persons.

Bob Bailey published seven papers from 1950 to 1955 most of them dealing with reproductive physiology of birds. He was a member of the A.O.U., 1951-53. His graduate student colleagues will remember his wit (a most entertaining field companion), his willingness to help others, his inventiveness (the collapsible bird trap), and aptitude for experimental work. He was survived by his wife, Barbara, and five children.—KEITH L. DIXON.