

PERIODICAL LITERATURE

EDITED BY GLEN E. WOOLFENDEN

NEW PERIODICALS

Ann. Repts. Ornithol. Soc. Pori (Finland). (Porin Lintutieteellinen Yhdistys Vuosikirja.)—Established in 1959, the society draws membership from the county surrounding the Baltic coastal town of Pori. The 1968 report contains 16 articles with English summaries and five articles of local interest in Finnish. Distributional changes, population indices, and detailed nesting and ecological observations comprise most of the papers.—M.D.F.U.

Ornis Scandinavica. Journal of the Scandinavian Ornithologists' Union published by Universitetsforlaget, P.O. Box 307, Blindern, Oslo 3, Norway. American Office: P.O. Box 142, Boston, Massachusetts 02113. The editor is Anders Enemar, Zool. Inst., Fack, S-400 33 Gothenburg, Sweden. The journal will publish research results of Scandinavian ornithologists, and will appear twice yearly, but will issue a supplemental series for longer papers. Annual cost is \$8.35. Volume 1, No. 1 (1970) includes 6 original papers in English dealing with behavior, taxonomy, migration, and calculation of the efficiency of animal population surveys. Papers in French or German also will be considered for publication.—B.A.H.

ANATOMY AND EMBRYOLOGY

- GOBEIL, R. E. 1970. Arterial system of the Herring Gull (*Larus argentatus*). J. Zool., 160: 337-354.—The arrangement patterns of large arteries are relatively constant, but smaller arteries show individual variation.—A.S.G.
- JOHNSON, O. W., AND J. N. MUGAAS. 1970. Quantitative and organizational features of the avian renal medulla. Condor, 72: 288-292.

BEHAVIOR

- ANDERSON, D. W. 1970. Pseudo-sleeping attitude in Lesser Scaup and Ring-necked Ducks. Condor, 72: 370-371.
- BENGTSON, S. A. 1970. Breeding behaviour of the Purple Sandpiper *Calidris maritima* in West Spitsbergen. Ornis Scandinavica, 1: 17-25.—Purple Sandpipers were studied on coastal tundra of Prins Karls Forland and the King Bay region from 23 June to 8 August 1967. Display postures described include wing-lifting, crouching, erect posture, and presentation. Territorial and courtship behavior are discussed subjectively, and a brief chronology of events with few supporting data is included.—B.A.H.
- CLARK, G. A., JR. 1970. Apparent lack of the double-scratch in two species of *Spizella*. Condor, 72: 370.
- CRADDOCK, D. R., AND R. D. CARLSON. 1970. Peregrine Falcon observed feeding far at sea. Condor, 72: 375-376.
- MANUWAL, D. A. 1970. Notes on the territoriality of Hammond's Flycatcher (*Empidonax hammondi*) in western Montana. Condor, 72: 364-365.
- NORBERG, R. Å. 1970. Hunting technique of Tengmalm's Owl *Aegolius funereus* (L.). Ornis Scandinavica, 1: 51-64.—Describes hunting methods from direct observation and with photographs of various phases of prey capture. The use of auditory clues to aid in prey capture is suggested.—W.D.C.

- POULSEN, H. 1970. Nesting behaviour of the Black-casqued Hornbill *Ceratogymna atrata* (Temm.) and the Great Hornbill *Buceros bicornis* L. *Ornis Scandinavica*, 1: 11-15.—Observations of captives in Copenhagen indicate that both male and female plaster the nest hole, with the female doing most of the work from inside the nest cavity.—B.A.H.
- POULTER, T. C. 1969. Sonar of penguins and fur seals. *Proc. California Acad. Sci.*, 36: 363-380.—Humboldt Penguins *Spheniscus humboldti* and northern fur seals *Callorhinus ursinus* underwent feeding experiments that indicate they both use sonar in foraging. Sensitive hydrophone and recording equipment revealed the presence for both species of cavitation clicks produced by the collapse of small cavities in the turbulence the animals make as they move through the water. Apparently the clicks are used as a true active method of echolocation.—S.C.W.
- SMITH, E. L. 1970. Cactus Wrens attack ground squirrel. *Condor*, 72: 363-364.
- TURBOTT, E. G. 1970. The Wrybill: a feeding adaptation. *Notornis*, 17: 25-27.—Individuals of *Anarhynchus frontalis* feeding over soft mud usually sweep their heads sideways from right to left (i.e. against the "righthanded" curve of the bill). This means that the whole left side of the distal portion of the bill, from angle to tip, is functional as a grasping and gathering mechanism. Previous hypotheses by Potts and Buller concerning the functional significance of the bent bill in the Wrybill are rejected.—G.D.S.
- VOIPIO, P. 1970. On "thunder-flights" of the House Martin *Delichon urbica*. *Ornis Fennica*, 47: 15-19.—House Martins are high aerial feeders that may be foraging when they rise in flocks in front of thunderheads and tornadoes. Thus these conspicuous flights may differ in function from those of swifts and other swallows under similar circumstances.—M.D.F.U.
- WIGGINS, I. L. 1969. Observations on the Vizcaíño Desert and its biota. *Proc. California Acad. Sci.*, 36: 317-346.—A travelogue through the Baja California desert, emphasizing vegetation, land snails, and reptiles. Contains brief descriptions of a Loggerhead Shrike killing and impaling a Horned Lark and of Caracaras following a tractor.—S.C.W.

DISEASES AND PARASITES

- BARUS, V., AND N. L. HERNANDEZ. 1970. Nematodos parasitos de aves en Cuba. Parte II. *Poeyana*, Ser. A, No. 71, 26 pp.—Postmortem check of 257 birds of 90 species revealed 24 species of nematodes, including *Capillaria saurotherae* sp. nov. from the Lizard Cuckoo and 5 other species reported for the first time from Cuba.—W.B.R.
- FRY, C. H., I. J. FERGUSON-LEES, AND J. S. ASH. 1969. Mite lesions in Sedge Warblers and bee-eaters in Africa. *Ibis*, 111: 611-612.—Two *Acrocephalus schoenobaenus* out of 391 trapped at Lake Chad in March-April 1967 had severe lesions of the feet and legs caused by the mite *Knemidokoptes jamaicensis* Turk. Most of the 700 *Merops bulocki* examined at Zaria were infected with *Neoschogastia* sp. and 5 per cent with the cheyletid mite *Neochelyetiella* sp.—S.C.W.
- LOCKE, L. N., AND J. A. NEWMAN. 1970. Paratyphoid in a Barn Owl. *Chesapeake Sci.*, 11: 67-68.

DISTRIBUTION AND ANNOTATED LISTS

- ANDERSON, W. 1970. The California Least Tern breeding in Alameda and San Mateo Counties. *California Fish and Game*, 56: 136-137.—Colonies of about 15 and 30 pairs were found in 1969.—J.J.D.

- ARVEY, M. D. 1970. Second record of Ovenbird in Nevada. *Condor*, 72: 367.
- BANKS, R. C. 1968. Annotated bibliography of Nevada ornithology since 1951. *Great Basin Naturalist*, 28: 49-60.—Includes 1951 through 1967 references on status and distribution of birds in Nevada.—S.C.W.
- BARLOW, J. C., J. A. DICK, AND E. PENDERGAST. 1970. Additional records of birds from British Honduras (Belize). *Condor*, 72: 371-372.
- BEAMISH, H. H. 1970. A European Roller *Coracias garrulus* in the Seychelles. *Bull. Brit. Ornithol. Club*, 90: 14-15.—A rare visitor; it was mobbed by terns and bulbuls.—F.B.G.
- BENSON, C. W. 1970. A Blue-winged Pitta on Christmas Island, eastern Indian Ocean. *Bull. Brit. Ornithol. Club*, 90: 24-25.—The first record of *Pitta moluccensis*, a highly migratory species, is reported on the basis of a recently located specimen taken in 1901.—F.B.G.
- BINFORD, L. C. 1970. Audubon's Shearwater, Hudsonian Godwit, and Long-tailed Jaeger in Oaxaca, Mexico. *Condor*, 72: 366.
- BORRETT, R. P., AND H. D. JACKSON. 1970. The winter quarters of *Caprimulgus europaeus plumipes* Prhevalski. *Bull. Brit. Ornithol. Club*, 90: 25-26.—Recent specimens document the hitherto unknown winter range, the lowlands of southeast Africa.—F.B.G.
- BROWN, L. H., AND E. K. URBAN. 1970. New and unusual records from south-west Ethiopia. *Bull. Brit. Ornithol. Club*, 90: 82-83.—Sight records of *Aviceda cuculoides* and *Podica senegalensis* extend their known ranges in Kenya.—F.B.G.
- BUCKLEY, P. A., AND C. F. WURSTER. 1970. White-faced Storm Petrels *Pelagodroma marina* in the North Atlantic. *Bull. Brit. Ornithol. Club*, 90: 35-38.—Fourteen late summer to early fall records of *Pelagodroma marina* subsp. suggests the species is a regular visitor to the North Atlantic rather than a straggler.—F.B.G.
- BUECHNER, H. K., AND J. H. BUECHNER. (Eds.) 1970. The avifauna of northern Latin America. *Smithsonian Contrib. Zool.*, No. 26, i-viii, 1-119.—Report of a symposium convened 13-15 April 1966 to discuss whether modification and elimination of wintering habitat is responsible for depressed levels of North American birds. Included are 14 papers and the ensuing discussions. The concluding suggestions made by the 41 participants give details regarding the establishment of natural areas, legislation, research education, communication, and management.—G.E.W.
- BULMER, W. 1970. First specimens of Chestnut-collared Longspur and Little Gull from Connecticut. *Wilson Bull.*, 82: 226-227.
- CARROLL, A. L. K. 1970. The White-faced Heron in New Zealand. *Notornis*, 17: 3-24.—The distribution of *Ardea novaehollandiae* (a colonizer of New Zealand in the last century) is studied in detail. An occasional visitor or possibly a restricted resident in New Zealand in pre-European times, this heron started breeding there about 1940. Perceptible population growth began about 1950 and progressed rapidly in the early 1960s. The species now occurs throughout the country. Detailed distribution maps and summaries of sight records are given.—G.D.S.
- CHAPMAN, F. L. 1969. Yellow Rails at Beaufort, N.C. *Chat*, 33: 103.—13 March 1969. Grass fire flushed 28 on airport runway.—F.E.L.
- CHAPMAN, K. A. 1969. White-rumped Swifts in Morocco. *Brit. Birds*, 62: 337-339.—Nesting-season observations provide first link between Nigerian and Spanish breeding areas.—H.B.
- COLSTON, P. R., AND D. T. HOLYOAK. 1970. A specimen of *Locustella luscinioides* from western Arabia in the collection of the British Museum (Nat. Hist.).

- Bull. Brit. Ornithol. Club, 90: 47.—Reexamination of a misidentified specimen reveals the first record of Savi's Warbler from Arabia.—F.B.G.
- CRAIG, J. T. 1970. Kentucky Warbler in San Diego. *California Birds*, 1: 37-38.
- CRAMP, S., AND P. J. CONDER. 1970. A visit to the Oasis of Kufra, Spring 1969. *Ibis*, 112: 261-263.—Few ornithologists have visited this oasis in the center of the Libyan Desert. Of 62 species recorded 31 March to 5 April, 32 are new records.—F.E.L.
- DARBY, M. M. 1970. Summer seabirds between New Zealand and McMurdo Sound. *Notornis*, 17: 28-55.—Four traverses were made between New Zealand and McMurdo Sound, Antarctica, from 8 January to 3 March 1968. A log of daily observations of birds is included, as are species accounts for *Diomedea exulans*, *D. melanophris*, *Puffinus griseus*, *Phoebastria palpebrata*, *Macronectes giganteus*, *Catharacta lonnbergi*, *C. maccormicki*, *Daption capensis*, *Fulmarus glacialisoides*, *Oceanites oceanicus*, *Thalassoica antarctica*, and *Pagodroma nivea*.—G.D.S.
- DARLING, J. L. 1970. New breeding records of *Toxostoma curvirostre* and *T. bendirei* in New Mexico. *Condor*, 72: 366-367.
- DOWSETT, R. J. 1970. A collection of birds from the Nyika Plateau, Zambia. *Bull. Brit. Ornithol. Club*, 90: 49-53.—Interesting distributional records of 29 species, altitudinal extensions of an additional 17 species, and weights of 66 species.—F.B.G.
- EDGAR, A. T., AND P. GRANT. 1969. Nankeen Kestrels in New Zealand. *Notornis*, 16: 288-298.—Lists the occurrences of *Falco cenchroides* in New Zealand from 1889 to present, with 1969 records presented in more detail.—G.D.S.
- EDGAR, A. T., H. R. MCKENZIE, AND R. B. SIBSON. 1969. Arctic waders in northern New Zealand, Summer 1968-69. *Notornis*, 16: 285-287.—Sight records of 19 species of migrant northern waders.—G.D.S.
- FORSTEN, A., AND L. POHJOLAINEN. 1969. First occurrence of Pallas' Sea Eagle (*Haliaeetus leucoryphus*) in Finland. *Ornis Fennica*, 46: 193-195.—A male obtained in June 1926 in central Finland was identified correctly only recently.—M.D.F.U.
- GARRIDO, O. H., AND A. SCHWARTZ. 1969. Anfíbios, reptiles y aves de Cayo Cantiles. *Poeyana*, Ser. A, No. 67, 44 pp.—Annotations to a preliminary list of 65 bird species from this island off the south coast of Cuba, 40 miles east of the Isle of Pines, include comments on variation of insular populations of several land birds.—W.B.R.
- GASTON, A. J. 1970. Birds in the central Sahara in winter. *Bull. Brit. Ornithol. Club*, 90: 53-66.—Detailed observations and ecological analyses, including drinking habits, of birds along a route Meinertzhagen traveled in 1931. Changes in bird life since Meinertzhagen's visit seem related to increased aridity of the central Sahara.—F.B.G.
- GIBSON, D. D. 1970. Recent observations at the base of the Alaska peninsula. *Condor*, 72: 242-243.
- GRISEZ, T. 1970. A White-throated sparrow nest in western Pennsylvania. *Wilson Bull.*, 82: 102-103.
- HADER, R. L. 1969. Species list of birds of Wake County, North Carolina. *Chat*, 33: 53-71.—Annotated list of 278 species.—F.E.L.
- HARRIS, B. K. 1970. Specimen records for South Dakota birds. *Condor*, 72: 243-244.
- HAVERSCHMIDT, F. 1970. Notes on the Royal Tern in Surinam. *Condor*, 72: 246.
- HAVERSCHMIDT, F. 1970. The past and present status of the American Flamingo

- in the Guianas. Bull. Brit. Ornithol. Club, 90: 67-73.—*Phoenicopterus rubra* nested in Guyana before 1895, in French Guiana in the 18th and possibly early 19th centuries, and probably near Coronie, Surinam, in 1930. An undiscovered nesting colony, the source of the flamingos seen throughout the year between eastern Surinam and French Guiana, probably exists somewhere in French Guiana.—F.B.G.
- HELLE, T., AND H. MIKKOLA. 1969. [On invasions of the Willow Tit (*Parus montanus*) in 1965-1968 in central Finland.] *Ornis Fennica*, 46: 136-139.—The tits migrated in September of 1966 and 1967 in unusually large numbers during the period after fledging and before the autumnal food storing. It is inferred that the invasion originated in the northern taiga as the central Finnish population did not seem to be involved. (In Finnish; English summary.)—M.D.F.U.
- HELLMAN, G. 1969. [First record of Wood Duck from Finland.] *Ornis Fennica*, 46: 196.—The second European specimen of *Aix sponsa* was shot on the east coast of the Baltic near Vasa in the fall of 1967. (In Swedish; English summary.)—M.D.F.U.
- HUGHES, R. A. 1970. Notes on the birds of the Mollendo District, southwest Peru. *Ibis*, 112: 229-241.—An annotated list of 150 species, mostly migrants, includes 12 new to the south Peruvian coast. Since 1960 both the Buff-necked Ibis and the Black Vulture have disappeared. The climate is moderated by the Humboldt Current and characterized by low rainfall but high humidity except in high desert. Flora varies with altitude from coastal to "fog flora" to superdesert.—B.A.H.
- IRWIN, M. P. S., P. N. F. NIVEN, AND J. M. WINTERBOTTOM. 1969. Some birds of the lower Chobe River area, Botswana. *Arnoldia* (Rhodesia), 4 (21): 40 pp.—A complete list of the avifauna of this transition belt between the South West Arid and South Central Highlands zoogeographic districts. Interesting comparisons are made of the dominant birds of the different habitats.—M.A.T.
- JEHL, J. R. 1970. A Mexican specimen of the Yellow-billed Loon. *Condor*, 72: 376.
- KARTTUNEN, L., A. LAAKSONEN, AND E. LAPPI. 1970. [On the occurrence of the Yellow-breasted Bunting in Northern Karelia.] *Ornis Fennica*, 47: 30-34.—A scarce pioneer before 1960, *Emberiza aureola* has increased from 6 to 58 observed singing males and has expanded geographically in east-central Finland. (In Finnish; English summary.)—M.D.F.U.
- KEITE, A. R. 1970. Bird observations from Tierra del Fuego. *Condor*, 72: 361-363.
- KINSKY, F. C. 1969. New and rare birds on Campbell Island. *Notornis*, 16: 225-236.—Adds nine new species to the birds known from this subantarctic island and gives new information on several species previously considered rare.—G.D.S.
- LAMBERT, R. E. 1970. Notes on the birds of north eastern Fiordland. *Notornis*, 17: 62-65.—An annotated list of 39 species recorded in New Zealand during the summer of 1966-67.—G.D.S.
- LAPTHORN, J., R. G. GRIFFITHS, AND W. R. P. BOURNE. 1970. Leach's Storm-petrel *Oceanodroma l. leucorrhoa* from the Indian Ocean and Sharjah, Persian Gulf. *Ibis*, 112: 260-261.
- LECK, C. F., AND S. HILTY. 1970. New and interesting records from the Chiriquí highlands of Panama. *Condor*, 72: 105.
- LOWERY, G. H., JR., AND L. L. SHORT, JR. 1969. Un registro de *Sporophila caerulelescens* del Chubut (Aves, Fringillidae). *Neotropica*, 15: 63.—First record of *S. c. caerulelescens* from Chubut, southern Argentina. (In Spanish.)—E.E.

- MARSHALL, D. B. 1970. Chestnut-sided Warbler in Washington. *Condor*, 72: 246.
- MARTIN, P. W., AND M. T. MYRES. 1969. Observations on the distribution and migration of some seabirds off the outer coasts of British Columbia and Washington State, 1946-1949. *Syesis*, 2: 241-256.—Presents previously unpublished information on the seasonal distribution of seabirds within 100 miles of the coast and relates this to oceanographic conditions—valuable contribution to our knowledge of offshore and pelagic seabirds.—R.W.S.
- MCCASKIE, G. 1970. Occurrence of the eastern species of *Oporornis* and *Wilsonia* in California. *Condor*, 72: 373-374.
- MCCASKIE, G. 1970. Shorebird and waterbird use of the Salton Sea. *California Fish and Game*, 56: 87-95.—Annotated list of 35 species of shorebirds and 47 other waterbirds, excluding Anseriformes and Gruiformes.—J.J.D.
- MCCASKIE, G., P. DEVILLERS, A. M. CRAIG, C. R. LYONS, V. P. COUGHERAN, AND J. T. CRAIG. 1970. A checklist of the birds of California. *California Birds*, 1: 4-28.—An updating of Grinnell and Miller's 1944 "The distribution of the birds of California," with comments on changes in nomenclature and species deleted from the list.—R.W.S.
- MCCASKIE, G. 1970. A Cape Petrel off Monterey, California. *California Birds*, 1: 39-40.—W. R. P. Bourne "would accept" the record.—R.W.S.
- MOLL CASASNOVAS, J. 1957. Las aves de Menorca. *Fauna Ornitológica Balear*, 1. xvii + 267 pp. Estudio General Luliano, Palma de Mallorca, Spain.—An elaborate work on the birds of Minorca, with discussion of habitats, descriptions, and keys. Vernacular names are given; not only those used in the Balearics, but also in various parts of continental Spain. The author died in 1954 and the current scientific and Spanish names are listed in the introduction.—E.E.
- NELSON, R. C. 1970. An additional nesting record of the Lucifer Hummingbird in the United States. *Southwestern Naturalist*, 15: 135-136.—A nest of *Calothorax lucifer* with two eggs found on 18 May 1968 in Big Bend National Park, Texas, is the third U. S. record.—J.J.D.
- OIGLIVIE, M. A. 1969. Bewick's Swans in Britain and Ireland during 1956-69. *Brit. Birds*, 62: 505-522.—The species now winters regularly at six sites, and peak numbers have increased from below 600 to at least 1,300.—H.B.
- OLROG, C. C. 1969. El anillado de Aves en la Argentina. 1961-1968. *Neotropica*, 15: 82-88.—Report on banding and recoveries. Banded young *Egretta alba* were recovered 6 months later in various directions and as far as ca. 1,000 km from the banding site. A *Pitangus sulphuratus* banded in Argentina in 1963 was recovered in 1969 in Brazil 1,300 km to the east. A Swainson's Thrush *Catharus ustulatus* banded on winter quarters in Argentina 25 January 1964 was retaken at the same place on 30 January 1968. (In Spanish; English summary.)—E.E.
- PARKES, K. C. 1970. On the validity of some supposed "first state records" from Yucatan. *Wilson Bull.*, 82: 92-95.
- REA, A. M. 1970. Status of the Summer Tanager on the Pacific slope. *Condor*, 72: 230-233.
- REID, B. 1970. Birds of the "Takahe study area." *Notornis*, 17: 56-61.—A list of 42 bird species recorded from the Tunnelburn (Takabe) Valley of South Island, New Zealand, 1949-1969.—G.D.S.
- SANGER, G. A. 1970. The seasonal distribution of some seabirds off Washington and Oregon, with notes on their ecology and behavior. *Condor*. 72: 339-357.
- SCHOUTEDEN, H. 1968. La Faune ornithologique du Kivu. 1. Non Passereaux. *Documentation Zoologique*, No. 12, 1-168. *Mus. Roy. de l'Afrique Centrale*,

- Tervuren, Belgium.—A distributional list of the birds recorded from the Kivu, the large eastern province of the Congo Republic (formerly Belgian Congo).—E.E.
- SCHWILLING, M. D. 1969. A Band-tailed Pigeon specimen from Kansas. *Kansas Ornithol. Soc. Bull.*, 20: 26.—First Kansas specimen of *Columba fasciata*, taken in Meade County, 9 October 1969.—M.A.J.
- SCHWILLING, M. D. 1969. A specimen of Black-legged Kittiwake taken in Kansas. *Kansas Ornithol. Soc. Bull.*, 20: 27.—First Kansas specimen of *Rissa tridactyla*, taken 27 October 1969 at the Cheyenne Bottoms Waterfowl Management Area, Barton County; many previous sight records exist.—M.A.J.
- SHARROCK, J. T. R. 1969. Scarce migrants in Britain and Ireland during 1958–67. *Brit. Birds*, 62: 300–315.—Analyzes occurrences of Melodious Warbler, Icterine Warbler, and Woodchat Shrike.—H.B.
- SICK, H. 1969. Über einige Töpfungsvögel (Furnariidae) aus Rio Grande do Sul, Brasilien, mit Beschreibung eines neuen *Cinclodes*. *Beitr. Neotrop. Fauna*, 6: 63–79.—A new species of *Cinclodes*, *C. pabsti*, from Rio Grande do Sul, Brazil, 16 km northeast of Tainhas, about 1,000 m elevation, based on three examples (two in *Amer. Mus. Nat. Hist.*). Habitat and behavioral information on *Limnocittes rectirostris*, *Cranioleuca pyrrhophia*, *Phacelodomus striaticollis*, and first Brazilian specimen of *Pseudoseisura lophotes*. (English and Portuguese summaries.)—E.E.
- SMITH, F. R., AND THE RARITIES COMMITTEE. 1969. Report on rare birds in Great Britain in 1968 (with 1964 and 1967 additions). *Brit. Birds*, 62: 457–492.—Includes 30 North American species.—H.B.
- SMITH, K. D. 1970. The Waldrapp *Geronticus eremita* (L.). *Bull. Brit. Ornithol. Club*, 90: 18–24.—Reviews distribution and migration of this little known ibis, the total population of which may be less than 1,000 pairs. Breeding colonies are still unknown from northeast Africa, where records seem to be of wintering birds from Asia Minor. More information is needed.—F.B.G.
- SMITH, M. C. T. 1970. Takaha found in Stillwater River catchment. *Notornis*, 17: 66–67.—Sight and photograph record of *Notornis mantelli*.—G.D.S.
- STJERNSTEDT, R. 1970. Birds in *Brachystegia microphyllum* in southern Tanzania. *Bull. Brit. Ornithol. Club*, 90: 28–31.—Birds found in this unusual evergreen woodland include several forest species not normally found in the area; one montane forest species, *Bessornis anomala*, is of particular interest.—F.B.G.
- UNGER, U. 1970. [First record of Buff-breasted Sandpiper *Tryngites subruficollis* in Sweden.] *Vår Fågelvärld*, 29: 11–12.—Two Buff-breasted Sandpipers were seen on the Swedish west coast on 25 August and 1 September 1968. The second of these was caught, photographed, measured, banded, and released. (In Swedish; English summary.)—L.d.K.L.
- WARHAM, J., AND B. R. KEELEY. 1969. New and rare birds at Snares Island during 1968–69. *Notornis*, 16: 221–224.—Lists 10 species, previously unrecorded, seen between 14 November 1968 and 25 February 1969.—G.D.S.
- WINTERBOTTOM, J. M. 1969. On the birds of the sandveld Kalahari of South West Africa. *Ostrich*, 40: 182–204.—The depauperate avifauna is derived from that of Damaraland.—M.A.T.
- WOODS, R. W. 1970. Greater Shearwater *Puffinus gravis* breeding in the Falkland Islands. *Ibis*, 112: 259–260.—Measurements and descriptions of 2 adults from a nest on 28 and 29 December 1961 on Kidney Island.—F.E.L.
- WOOLFENDEN, G. E. 1970. A putative skeletal specimen of the Flammulated Owl with Alabama locality data. *Wilson Bull.*, 82: 223–224.

ECOLOGY AND POPULATION

- ANTHONY, R. 1970. Ecology and reproduction of California Quail in southeastern Washington. *Condor*, 72: 276-287.
- BALDA, R. P. 1970. The effects of spring leaf-fall on composition and density of breeding birds in two southern Arizona woodlands. *Condor*, 72: 325-331.
- DICKERMAN, R. W., AND G. GAVINO T. 1969. Studies of a nesting colony of Green Herons at San Blas, Nayarit, Mexico. *Living Bird*, 8: 95-111.—About 300 pairs of *Butorides virescens* breeding in a mangrove forest coordinated their activities with the rainy season, mid-July to early October. Data are given on nest construction, heights, and spacing; egg color and measurements; clutch size; incubation; hatching; parental care; and nesting success. Normally 9 other colonial waterbirds inhabit the same locality; during the study year they bred elsewhere.—G.E.W.
- ERIKSSON, K. 1969. On occurrence and ecology of Blyth's Reed Warbler (*Acrocephalus dumetorum*) and Marsh Warbler (*A. palustris*) in Finland. *Ornis Fennica*, 46: 157-170.—These two species are at the northern edge of their ranges in southern Finland. The author ingeniously compares the increase of nesting and occurrence data since the mid-1950s with increased birdwatching and research activity. About 80 per cent of the greatly increased number of records between 1955 and 1965 can be explained by an increase in birdwatching, but in the case of the Marsh Warbler, a real range extension, apparently to the northern limit of its habitat, is shown during 1960 and 1965. Thus the species' potential range has been filled.—M.D.F.U.
- GRANT, V., AND K. A. GRANT. 1970. A hummingbird-pollinated species of Boraginaceae in the Arizona flora. *Proc. Natl. Acad. Sci.*, 66: 917-919.—*Macromeria viridiflora thurberi* visited by Broad-tailed and Rufous Hummingbirds for its nectar is the first species known in the Boraginaceae to be pollinated through this means. A brief review with references covers hummer pollination in plant species in other families, called "hummingbird flowers." The authors refer to hummingbird pollination "as one of the most distinctive pollination systems in the western North American flora."
- KÄLLANDER, H. 1970. [The Grasshopper Warbler *Locustella naevia* in Sweden in 1968.] *Vår Fågelvärld*, 29: 6-10.—A repeat census after 11 years reveals a notable increase in *Locustella naevia*. Distributed within agricultural regions, the bird shows a distinct preference for lake drainage area.—L.d.K.L.
- KOPLIN, J. R., AND P. H. BALDWIN. 1970. Woodpecker predation on an endemic population of Engelmann spruce beetles. *Amer. Midl. Naturalist*, 83: 510-515.—*Picooides tridactylus* and *Dendrocoptes villosus* consumed 2 to 26 per cent of an endemic spruce beetle, *Dendroctonus obeus*, in a subalpine forest in Larimer County, Colorado. Predation was restricted to the second-year brood and decreased survival of this group from 13 to 25 per cent. Factors accounting for the differential mortality are discussed.—G.D.S.
- MALLETTE, R. D., F. C. SIBLEY, W. D. CARRIER, AND J. C. BORNEMAN. 1970. California Condor surveys, 1969. *California Fish and Game*, 56: 199-202.—The fifth annual survey counted 53 condors: 39 adults, 6 young, and 8 of unknown age.—J.J.D.
- MIIKKOLA, H. 1970. On the activity and food of the Pygmy Owl *Glaucidium passerinum* during breeding. *Ornis Fennica*, 47: 10-14.—Actograph study of a nest showed the owl to be most active between 22:01 and 09:10. Light directly

- influenced the circadian rhythm. Bank and field voles comprised 57 per cent of prey and birds 38 per cent, comparing well with other Finnish studies.—M.D.F.U.
- MIKKOLA, H., AND S. SULKAVA. 1969. On occurrence and feeding habits of Short-eared Owl in Finland 1964–68. *Ornis Fennica*, 46: 188–193.—Analysis of pellets from 23 sites during 1964 to 1967 established the predominance of *Microtus* during the nesting seasons of all study years. Local and seasonal fluctuations are compared with food habits of *Asio flammeus* in other parts of Finland.—M.D.F.U.
- RICKLEFS, R. E. 1969. The nesting cycle of songbirds in tropical and temperate regions. *Living Bird*, 8: 165–175.—Based on a sketchy comparison of tropical and temperate nesting cycles, the author concludes that the diversity of tropical predators has increased the variety of nests and the antipredator behavior of adults. Furthermore he concludes that the diversity in tropical environments has had little effect on time relations during the nesting period, but is reflected mainly by reduced clutches and increased mortality. Even though mortality rates are higher, developmental rates of tropical birds are similar to those of temperate species. Probably the extra energy required to hasten development is not available.—G.E.W.
- SCHREIBER, R. W., AND N. P. ASHMOLE. 1970. Sea-bird breeding seasons on Christmas Island, Pacific Ocean. *Ibis*, 112: 363–394.—Describes breeding for 18 species of seabirds on an equatorial Central Pacific island with information on periodicity, populations, individual cycles, molt, and mortality. These accounts are especially significant as no breeding season exists as such for all species; instead different species breed at varying times; 12 species breed throughout the year with one or two seasonal peaks, 6 species breed only once per year. The proximate and ultimate controls of breeding seasons are discussed with regard to species and individuals and with consideration of the synchronizing role of social stimulation. Note that in figure 1 Motu Upu should read Motu Upua.—B.A.H.
- SEIERSTAD, S., A. SEIERSTAD, AND I. MYSTERUD. 1970. Generalization of the standard check method for survey efficiency estimation. *Ornis Scandinavica*, 1: 1–9.—Describes methods for calculating the efficiency of animal population surveys (i.e. the chance for discovery of an individual present during the survey) when the population fluctuates. Also included are methods for estimating migration during the survey period and statistical procedures for assessing individual differences in conspicuousness. The methods are based on material from repeated surveys of the population. From authors' abstract.—B.A.H.
- SNYDER, N. F. R., AND H. A. SNYDER. 1969. A comparative study of mollusc predation by Limpkins, Everglade Kites, and Boat-tailed Grackles. *Living Bird*, 8: 177–223.—A lengthy discourse on foraging and feeding. The laterally curved lower bill of *Aramus* and the long, hooked upper bill of *Rostrhamus* cut the columellar muscle of *Pomacea* snails for extraction. The less efficient *Cassidix* use whatever part of the bill they can get beneath the operculum. None of the species normally ingests the operculum. *Aramus* and *Cassidix* open bivalves by driving the bill between the valves, usually where the shell is thinnest.—G.E.W.
- SOIKKELI, M. 1970. Dispersal of Dunlin *Calidris alpina* in relation to sites of birth and breeding. *Ornis Fennica*, 47: 1–9.—Over 500 chicks were banded at a coastal breeding colony in Baltic Finland with an area of 5 km breadth. The nearest nesting populations, 100 km south and 280 km north, were searched for banded individuals, but no breeders were found. The great concentration of recoveries, including all of 57 first breeders, recovered within a 5 km radius indicates a high degree of site tenacity. Return to the place of first breeding is still higher, especially in males, and the author believes that faithfulness to the

- mate is mainly a result of site adherence. One young was caught 280 km north of its birthplace shortly after fledging; therefore long-distance dispersal also must occur. Includes a summary of literature on site tenacity in *Haematopus ostralegus*, *Charadrius hiaticula*, *C. dubius*, *C. alexandrinus*, and *Tringa totanus*.—M.D.F.U.
- STOLT, B. O. 1970. [Ecological differentiations in the behavior of fall-migrating passerines on the plain of Uppsala.] *Vår Fågelvärld*, 29: 13–23.—This paper deals with two problems. How is migration of various species limited in time? Do birds show habitat preferences, and how are these distinguished in an artificial environment of uniform type? (In Swedish; comprehensive English summary.)—L.d.K.L.
- WALAN, L. B., AND R. C. STENDALL. 1970. The White-tailed Kite in California with observations of the Santa Barbara population. *California Fish and Game*, 56: 188–198.—A historical survey of the decline and recovery of the population in California. At Santa Barbara the birds roost communally in winter and then scatter to nest in February and March. Pellet analysis shows they prey almost entirely on three species of mice.—J.J.D.
- WOODS, R. W. 1970. Avian ecology of a tussock island in the Falkland Islands. *Ibis*, 112: 15–24.—Kidney Island, one of the few islands retaining a natural mature tussock-grass habitat, harbors 28 breeding bird species; 18 nest in one of the six vertical strata in the grass and 9 nest peripherally but use the grass in nest construction. Nest sites and interrelationships of these species are described.—S.C.W.

EVOLUTION AND GENETICS

- BANKS, R. C. 1970. The Fox Sparrow on the west slope of the Oregon Cascades. *Condor*, 72: 369–370.
- CODY, M. L., AND J. H. BROWN. 1970. Character convergence in Mexican finches. *Evolution*, 24: 304–310.—This is another of the provocative papers in the Cody manner discussing character “convergence,” which is not distinguished from parallelism. Four species, *Pipilo ocai*, *P. erythrophthalmus*, *Atlapetes brunneinucha*, and *A. pileatus*, were studied on Cerro San Felipe in Oaxaca. *P. ocai* and the similar-appearing *A. brunneinucha* defended territories against one another, as did *P. ocai* and *P. erythrophthalmus*, while *brunneinucha* overlapped with *erythrophthalmus*, and *A. pileatus* overlapped territorially with the other three species. Little interspecific aggression was noted; the overlap or lack of overlap was based upon observations of paired (unmarked) individuals. The authors ignore mention of the very close relationship of these genera and leave many questions unanswered. One wonders at the “convergence” of *ocai* and *brunneinucha* when the latter is sympatric with the former over only a very small part of the overall range of *brunneinucha*; yet *brunneinucha* resembles *ocai* throughout its vast range. Further, *A. torquatus*, the South American near-relative of *brunneinucha* also “resembles” *ocai* (and *brunneinucha*) in all respects except crown color. Other close relatives of *A. brunneinucha* (e.g., sympatric *A. atricapillus*) may have influenced its color patterns to a degree greater than has *ocai*.—L.L.S.
- FRY, C. H. 1970. Convergence between jacamars and bee-eaters. *Ibis*, 112: 257–259.—Analysis of adult pellets and nestling gizzards of *Galbula ruficauda* and *Merops bulcocki* show their diets are virtually identical. The author speculates that this factor may account for the convergent bill morphology, behavior, breeding biology, and plumage patterns between the two families.—S.C.W.
- GALTON, P. M. 1970. Ornithischian dinosaurs and the evolution of birds. *Evolution*, 24: 448–462.—A cursorial biped of the Middle Triassic may have been the common

- ancestor of birds and ornithischian dinosaurs. The latter diverged from birds and became specialized for a herbivorous diet, which accounts for dissimilarities between the two groups. The avian line developed from cursorial beginnings, featuring among other things the evolution of a backwardly directed hallux, before forsaking the ground to assume an arboreal existence. Thus birds may be the closest living relatives of ornithischian dinosaurs, and indeed "might be described as 'feathered dinosaurs'."—L.L.S.
- HARRISON, I., AND J. HARRISON. 1970. A note on three female Pochard \times Tufted Duck hybrids. *Bull. Brit. Ornithol. Club*, 90: 86–88.—A second example of this hybrid was studied in the field and collected, and a third was provisionally identified. It may be more common than presently realized.—F.B.G.
- HOLYOAK, D. 1970. The relation of egg colour to laying sequence in the Carrion Crow. *Bull. Brit. Ornithol. Club*, 90: 40–42.—Pale-colored eggs in *Corvus corone* clutches tend to be the last ones laid. Consistent differences between females suggest a hereditary basis. Relaxed selective pressures from nest predators in Britain may be responsible.—F.B.G.
- INGOLFSSON, A. 1970. Hybridization of Glaucous Gulls *Larus hyperboreus* and Herring Gulls *L. argentatus* in Iceland. *Ibis*, 112: 340–362.—Studies in a zone of recent sympatry indicate random hybridization of Herring and Glaucous Gulls, resulting in viable hybrids. With some exceptions, the rate of admixture correlates to either length of time since *argentatus* immigration, or to size of *hyperboreus* population prior to immigration of *argentatus*. Even though hybridization occurs freely in Iceland, the presence of isolating mechanisms in areas of sympatry in Canada make the author conclude that *L. hyperboreus* and *argentatus* should continue to be considered two species.—B.A.H.
- JEHL, J. R., JR. 1970. Sexual selection for size differences in two species of sandpipers. *Evolution*, 24: 311–319.—Pairs comprised of relatively larger females and smaller males form pairs earlier and obtain greater reproductive success than later nesting pairs in Stilt and Least Sandpipers. The later nesting pairs show less disparate size differences, and they are less successful in raising young. Sexual size differences in these species are largely or entirely due to sexual selection, but other factors may be involved. For example, no data are presented to demonstrate that females and males consume the same food items during incubation, which is unlikely because females incubate at night and feed diurnally, while males incubate all day and feed only at night. Sexual dimorphism in size conceivably could relate to differential foraging habits, or dietary differences.—L.L.S.
- SHORT, L. L., AND J. J. MORONY, JR. 1970. A second hybrid Williamson's \times Red-naped Sapsucker and an evolutionary history of sapsuckers. *Condor*, 72: 310–315.

GENERAL BIOLOGY

- ANGELL, T. 1969. A study of the Ferruginous Hawk: adult and brood behavior. *Living Bird*, 8: 225–241.—Notes on copulation, nest construction, incubation and brooding, foraging and feeding, and development of the young from one nest studied in Washington State. The adults drove a coyote from the vicinity of their ground nest and kept neighboring Red-tailed Hawks at a distance. To their small young they brought small mammals and young birds; later jackrabbits became the staple food.—G.E.W.
- BERGER, A. J. 1969. The breeding season of the Hawaii 'Amakihi. *Occ. Pap., Bernice P. Bishop Mus.*, 24: 1–8.—*Loxops v. virens* nested from mid-October 1966

- to at least May 1967, with some young hatching during periods of below-freezing nighttime temperatures. Includes color photographs of nest with eggs and of nestlings.—S.C.W.
- BERGER, A. J. 1969. Discovery of the nest of the Hawaiian Thrush. *Living Bird*, 8: 243-250.—Although a common permanent resident in rain forest on Hawaii, the first nest of *Phaeornis obscura*, family Turdidae, was not discovered until 1968. The nest, containing one egg, was 4 feet up in a tree fern.—G.E.W.
- CROSSIN, R. S., AND L. N. HUBER. 1970. Sooty Tern egg predation by Ruddy Turnstones. *Condor*, 72: 372-373.
- DARE, P. J. 1970. The movements of Oystercatchers *Haematopus ostralegus* L. visiting or breeding in the British Isles. *Fishery Investigations*, Ser. 2, 25: 1-137.—A detailed study of recoveries and returns from some 5,400 migrant and wintering Oystercatchers, including 3,000 that were color-banded, along with recoveries of those banded in continental Europe and as young in the British Isles. Few birds from continental Europe winter in the British Isles, while most of the Atlantic population (Iceland, Faeroe Islands, and the British Isles) winters on the British coast. Some British birds winter on the continent (mainly France), but these are mostly birds under 2 years old. Individual birds tend to winter in the same locality in successive years.—J.J.D.
- FERGUSON-LEES, I. J. 1969. Studies of less familiar birds: Pin-tailed Sandgrouse. *Brit. Birds*, 62: 533-541.—A summary article, with six photos.—H.B.
- FORSTÉN, P., AND A. TUOMINEN. 1969. The Arctic Skua (*Stercorarius parasiticus*) in the Bothnian Sea and the Northern Archipelago Sea. *Ann. Repts. Ornithol. Soc. Pori*, 1968: 35-37.—A brief report of a 2-year study on a population of 74 to 76 pairs. Gives clutch size, hatching and breeding success (52, 54, and 62 per cent in 1966-1968, successively), and data on the proportion of color phases of the adults in each year. (In Finnish; English summary.)—M.D.F.U.
- HAKILA, R. 1969. [Breeding biology of the Goshawk (*Accipiter gentilis*) in Satakunta.] *Ann. Repts. Ornithol. Soc. Pori*, 1968: 52-54.—Discusses density, territory size, and clutch size of nine nesting pairs of Goshawks from four seasons in western Finland. (In Finnish; English summary.)—M.D.F.U.
- HAUKIOJA, E. 1969. Mortality rates of some Finnish passerines. *Ornis Fennica*, 46: 171-178.—Computer calculations, using Haldane's formula, were used on 19 passerine species to test the biases of reporting and the formula. Ring wear was reported as the most important factor affecting apparent high mortality rates. Among other factors was the effect of different wintering places, especially with respect to man's activities (persecution, protection, or little direct effect). With three exceptions, the values fall within the expected limits of passerine mortality. The exceptions are discussed at length. [A possible added bias is the treatment of nonreturns as mortalities, for we do not know how many juveniles actually are dispersing to nonchecked areas.]—M.D.F.U.
- HAUKIOJA, E., AND P. KALINAINEN. 1969. [On the postnuptial molt of the Willow Warbler (*Phylloscopus trochilus*), the Whitethroat (*Sylvia communis*), and the Meadow Pipit (*Anthus pratensis*).] *Ann. Repts. Ornithol. Soc. Pori*, 1968: 75-78.—(In Finnish; English summary.)
- HAUKIOJA, E., AND J. REPONEN. 1969. [The movements of the House Sparrow, *Passer domesticus*, during a year cycle.] *Ann. Repts. Ornithol. Soc. Pori*, 1968: 23-26.—Recoveries from several hundred mist-netted sparrows show that males had statistically significant movements of 1.5 km between two netting stations while the females did not. (In Finnish; English summary.)—M.D.F.U.

- HAUKIOJA, E., AND J. REPONEN. 1969. [On the molt of the House Sparrow (*Passer domesticus*).] Ann. Repts. Ornithol. Soc. Pori, 1968: 49-51.—A study of 152 molting sparrows at 61° 30' N, 21° 30' E in Finland showed that primary molt lasted 83 days if begun before the end of August, and 64 days if begun later. (In Finnish; English summary.)—M.D.F.U.
- HAUKIOJA, M., P. KALINAINEN, AND J. REPONEN. 1969. [On the occurrence of the Eagle Owl (*Bubo bubo*) in Satakunta.] Ann. Repts. Ornithol. Soc. Pori, 1968: 54-58.—The west Finnish province of Satakunta, a boreal forest area, harbors annually about 100-150 breeding pairs, which remained stable during the 4 years of study. Each pair raised an average of 1.8 young yearly to bandable age. (In Finnish; English summary.)—M.D.F.U.
- HAVERSCHMIDT, F. 1970. Notes on the life history of the Mouse-colored Fly-catcher in Surinam. Condor, 72: 374-375.
- HUBBS, C. L., A. L. KELLY, AND C. LIMBAUGH. 1970. Diversity in feeding by Brandt's Cormorant near San Diego. California Fish and Game, 56: 156-165.—Observations of birds feeding and stomach analysis show that Brandt's Cormorants feed on a wide variety of fish in a variety of habitats, ranging from kelp beds and open water to sand bottoms. In open water large rafts feed in "leap-frog" fashion as they chase schools of fish.—J.J.D.
- JOHNS, J. E., AND C. W. ERICKSON. 1970. Breeding of free-living Trumpeter Swans in northeastern Washington. Condor, 72: 377-378.
- LILJA, I. 1969. [On the postnuptial wing molt of migratory Dunlin (*Calidris alpina*).] Ann. Repts. Ornithol. Soc. Pori, 1968: 40-43.—Early in July, at the beginning of the fall migration, about 10 per cent of transient Dunlins molt their remiges. At the end of August most of them are molting, and in about 6 per cent of the cases (n = 682) wing molt was interrupted during migration. Most wing molt takes place in the wintering area. (In Finnish; English summary.)—M.D.F.U.
- REPONEN, J. 1969. [On the breeding biology of the Buzzard (*Buteo buteo*) in Satakunta.] Ann. Repts. Ornithol. Soc. Pori, 1968: 71-72.—(In Finnish; English summary.)
- RETFALVI, L. 1970. Food of nesting Bald Eagles on San Juan Island, Washington. Condor, 72: 358-361.
- SEEL, D. C. 1970. Nestling survival and nestling weights in the House Sparrow and Tree Sparrow *Passer* spp. at Oxford. Ibis, 112: 1-14.—Predation was the most important cause of brood failure for *P. montanus*, food shortage for *P. domesticus*. In both species nestling weights decreased with decrease in the number of survivors from each initial brood. In *P. domesticus*, but not *P. montanus*, nestling weight decreased with increased initial brood size. Seasonal variations in nestling survival correlated with food supply.—S.C.W.
- SIBLEY, F. C. 1970. Winter wing molt in the Western Grebe. Condor, 72: 373.
- ZUSI, R. L. 1969. Ecology and adaptations of the Trembler on the island of Dominica. Living Bird, 8: 137-164.—*Cinlocerthia ruficauda* is a mimid endemic to the Lesser Antilles, which on Dominica is common in evergreen forest. Its food consists of insects and other invertebrates, small frogs and lizards, and fruits. Tremblers forage in epiphytes, clumps of dead leaves, crevices in tree trunks, and tangled vines. The wing trembling so characteristic of the species makes the bird conspicuous as it hops through the trees, and may be an aggressive social signal. The relatively short legs, reduced sternum and wings, long bill, flattened cranium, and narrow antorbital region, and eyes oriented for close binocular vision seem to be adaptations for such foraging. Additional features of the skull

suggest *Alenia* and *Margarops* are the closest relatives of *Cinlocerthia*. Further information on mimid taxonomy and mainland birds with similar foraging techniques is given.—G.E.W.

MANAGEMENT AND CONSERVATION

- BOEKER, E. L. 1970. Use of aircraft to determine Golden Eagle, *Aguila* [= *Aquila*] *chrysaetos*, nesting activity. *Southwestern Naturalist*, 15: 136-137.—Aerial checks of nests saved time and money without unduly disturbing the birds.—J.J.D.
- HOLCOMB, L. C. 1968. Problems in the use of an embryocide to control passerine bird populations. *Trans. 33rd North Amer. Wildl. Nat. Res. Conf.*, pp. 307-316.—Indicates the futility of and dangers involved with the use of chemicals until further information is available on the physiological processes involved.—R.W.S.
- MERI, T. 1969. [The Ospreys (*Pandion haliaetus*) in Satakunta.] *Ann. Repts. Ornithol. Soc. Pori*, 1968: 73-74.—Discusses tabulated data on the breeding success of 13 to 31 nests annually during 1962 to 1968, averaging 1.6 young per nest, with surprisingly little variation. The author concludes that mercury poisoning does not at present threaten the population of this west Finnish province. (In Finnish; English summary.)—M.D.F.U.

MIGRATION AND ORIENTATION

- BUNDY, G. 1970. Some notes on autumn migrants in Morocco. *Bull. Brit. Ornithol. Club*, 90: 47-49.—Few trans-Saharan migrants were observed during a 4-day trip into the desert south of the Atlas Mountains.—F.B.G.
- BURTON, J. F., AND R. A. FRENCH. 1969. Monarch butterflies coinciding with American passerines in Britain and Ireland in 1968. *Brit. Birds*, 62: 493-494.—H.B.
- EISENMANN, E., AND F. HAVERSCHMIDT. 1970. Northward migration to Surinam of South American martins (*Progne*). *Condor*, 72: 368-369.
- EMLEN, S. T. 1969. The development of migratory orientation in young Indigo Buntings. *Living Bird*, 8: 113-126.—Ten *Passerina cyanea*, hand-raised from nestlings under various forms of isolation from view of the sky, were tested for orientation abilities. Two of four individuals that never witnessed visual-celestial clues exhibited weak southerly tendencies in fall. Directional responses improved with views of the sky and natural surroundings, but hand-raised birds never attained the accuracy of adults. Orientation behavior combines experience-dependent and independent factors.—G.E.W.
- GRIFFIN, D. R. 1969. The physiology and geophysics of bird navigation. *Quart. Rev. Biol.*, 44: 255-276.—Discusses proposed mechanisms to account for nonrandom orientation by migrating birds under overcast skies: visual surface cues, inertial orientation, orientation to the earth's magnetic field, acoustic cues, and cues from air currents. Mechanisms for goal-directed homing and possible sensory structures to detect atmospheric pressure and position of the sun also are discussed. Griffin suggests that new approaches and speculations are needed to solve these problems.—S.C.W.
- MOREAU, R. E. 1969. Comparative weights of some trans-Saharan migrants at intermediate points. *Ibis*, 111: 621-624.—Hypothesizes expected weights of migrant landbirds based on estimated minimum distances migrants must fly to reach the next suitable stopping point. Data on weight then are compared to theorized weights and, with some exceptions, tend to support a theory that weights of migrants correspond to lengths of impending flights.—B.A.H.

- NEWMAN, R. J., AND G. H. LOWERY. 1964. Selected quantitative data on night migration in autumn. Spec. Publ. Mus. Zool., Louisiana State Univ., No. 3.—Visual counts of autumn migrants silhouetted against the moon.—B.A.H.
- NIELSEN, B. P., AND S. CHRISTENSEN. 1969. On the autumn migration of Spotted Eagles and Buzzards in the Middle East. *Ibis*, 111: 620–621.—Counts were made at Lebanon from 15 to 21 September and at the Bosphorus from 24 September to 7 October 1968. Results are given for *Aquila pomarina*, *A. clanga*, *Buteo buteo*, and *Pernis apivorus*.—S.C.W.
- PEARSON, D. J., J. H. PHILLIPS, AND G. C. BACKHURST. 1970. Weights of some palaeartic waders wintering in Kenya. *Condor*, 72: 199–208.—Weights of Curlew Sandpiper, Little Stint, Ruff, and Marsh Sandpiper in the Kenyan rift valley were moderate in autumn, low in winter, and high in spring before the April-May migration. Discusses significance of these weights in regard to the spring migration.—B.A.H.
- RABØL, J. 1970. Displacement and phaseshift experiments with night-migrating passerines. *Ornis Scandinavica*, 1: 27–43.—Warblers trapped in autumn in Denmark and transported out of/or down their migratory routes showed compensatory reactions directed towards the vicinity of the trapping area. The Emlen funnel technique was used, and the circular statistics follow Batschelet (1965). The directed activities could be considered as bicoordinate navigation towards points (goal areas) on the migratory route. In the course of the migration season the appropriate point probably shifts in a programmed manner down the route. Birds that were kept in a light/dark shifted rhythm did not react to the activity shift as a geographical displacement. From author's abstract.—B.A.H.

MISCELLANEOUS

- EARHART, C. M., AND N. K. JOHNSON. 1970. Size dimorphism and food habits of North American owls. *Condor*, 72: 251–264.
- ERIKSSON, K. 1970. [Development of ornithological activity in Finland and its effect on the number of records.] *Ornis Fennica*, 47: 20–29.—Three variables were chosen for a 10-year period as reflecting the rate of increase in ornithological activity: the number of participants in spring meetings of the junior section of the Ornithological Society of Finland, the number of birds banded in Finland, and a variable calculated from the number and mobility of bird banders. The birds tested were four warblers that reach their limit of distribution in southern or southeastern Finland. It is concluded that apparent increases for certain rare or occasional species are the result of increased observation. (In Finnish; English summary.)—M.D.F.U.
- HARRISON, C. J. O., AND D. T. HOLYOAK. 1970. Apparently undescribed parrot eggs in the collection of the British Museum (Natural History). *Bull. Brit. Ornithol. Club*, 90: 42–46.—Measurements of eggs of 59 species of parrots. Most were laid in captivity.—F.B.G.
- HAVERSCHMIDT, F. 1970. Wattled Jacana caught by an anaconda. *Condor*, 72: 364.
- HILDÉN, O. 1969. Activities of Finnish bird stations in 1968. *Ornis Fennica*, 46: 179–187.
- POWER, D. M. 1970. Geographic variation in the surface/volume ratio of the bill of Red-winged Blackbirds in relation to certain geographic and climatic factors. *Condor*, 72: 299–304.
- STONEHOUSE, B. 1969. Emperor Penguins *Aptenodytes forsteri* at Franklin Island,

- Ross Sea, Antarctica. *Ibis*, 111: 627-628.—A breeding colony of about 2,000 pairs with 1,700 chicks was first seen on 19 November 1964. At a second visit on 6 December 1965, 200-300 chicks and a similar number of adults remained. The condition of the ice suggested a recent breakup. It was not known whether the missing chicks had perished or dispersed safely in early December.—S.C.W.
- YAPP, W. B. 1969. The composition of raptor pellets. *Ibis*, 111: 613.—Four pellets of *Falco tinnunculus* were digested with commercial trypsin. Loss of dry weight varied from 0 to 31 per cent.—S.C.W.

PHYSIOLOGY

- ANDERSON, W. L. 1970. Seasonal changes in thymus weights in Ring-necked Pheasants. *Condor*, 72: 205-208.
- BARTHOLOMEW, G. A., AND C. H. TROST. 1970. Temperature regulation in the Speckled Mousebird, *Colius striatus*. *Condor*, 72: 141-146.
- BHATTACHARYYA, T. K., AND A. GHOSH. 1970. Histomorphic changes following chronic adrenocortical activation and inhibition in the pigeon. *J. Morphol.*, 130: 257-270.—Experimental groups were treated with either adrenocorticotrophin or metopirone. Both experimental groups showed weight retardation when compared with controls. Gastrointestinal tract, reproductive, and endocrine morphology showed notable changes, while lymphatic organs, kidney, and heart were relatively unmodified. ACTH caused regressive changes in the testis, but stimulated oocyte development, while metopirone produced opposite results. Effects of chronic interference of adrenocortical system were greater with metopirone.—A.S.G.
- CALDER, W. A. 1970. Respiration during song in the canary (*Serinus canaria*). *Comp. Biochem. Physiol.*, 32: 251-258.—Canary song and respiratory movements are unlike human song, which is produced by sustained expiration. Simultaneous records of song notes and respiratory movements of the canary showed a 1:1 correspondence, even in notes trilled as rapidly as 25/sec. The duration of song was not limited by presong inspiration, and dorso-ventral dimension was maintained constant or even increased during trilled portions.—A.H.B.
- CARPENTER, R. E., AND M. A. STAFFORD. 1970. The secretory rates and the chemical stimulus for secretion of the nasal salt glands in the Rallidae. *Condor*, 72: 316-324.
- ENGELBERT, V. E., AND A. D. YOUNG. 1970. Erythropoiesis in peripheral blood of seven species of New Zealand and one species of Canadian birds. *Canadian J. Zool.*, 48: 227-230.—This study presents additional evidence of the reproductive capacity of nuclei in mature erythrocytes of peripheral blood, without any evidence of classical mitosis.—H.W.K.
- FOLK, R. L. 1969. Spherical urine in birds. *Science*, 166: 1516-1519.—Using a high-powered polarizing microscope, Folk found all the samples of bird urine he examined to consist of spherical solids. These were at least partially soluble in water and rapidly soluble in weak acids, indicating that they were not uric acid as has been universally believed previously. X-ray spectrometry, ultraviolet spectrophotometry, and electron microscopy confirmed that the urine was not uric acid but did contain a urate radical. The author attributes past misidentification of bird urine as uric acid to the fact that most chemists suspend substances in water and acidify them before analysis. He leaves it for the organic chemists to determine just what the urine really is, and, as he points out, if it is not uric acid, many evolutionary and physiological theories will be in need of reevaluation. For

- example see Schmidt-Nielsen and Kim (Auk, 81: 160, 1964), "It has generally been assumed that the bird kidney is incapable of producing such concentrated urine (4.5 times plasma osmotic concentration) because extensive water reabsorption would cause precipitation of uric acid in the uriniferous tubules." Unfortunately, Folk refers to the species he worked with as "pigeons, eagles, magpies, sparrows, sea gulls," etc., with no reference to binominals. Nevertheless, if he is correct in his findings, much subsequent research and many new ideas may result from this short but potentially very important paper.—S.L.O.
- HARRIMAN, A. E. 1968. Acceptance of cations as chlorides in drinking tests with two species of birds and three species of mammals. *Amer. Midl. Naturalist*, 79: 396-401.—Rank orders of acceptance of six cations as chlorides were determined in two-bottle tests with three mammals, *Sturnus vulgaris*, and *Coturnix coturnix*. Findings suggested that rank orders of acceptance for taste stimuli may prove useful in interpreting results from comparative studies of taste by means of two-bottle procedures.—G.D.S.
- HARRIMAN, A. E., AND J. S. MILNER. 1969. Preference for sucrose solutions by Japanese Quail (*Coturnix coturnix japonica*) in two-bottle drinking tests. *Amer. Midl. Naturalist*, 81: 575-578.—Forty adult quail were given two-bottle drinking tests (sucrose solution versus distilled water). Birds showed a significant preference for the 0.3 M sucrose solution over water, but preferred water over sugar solutions of higher or lower concentrations.—G.D.S.
- HAYASHIDA, T. 1969. Relatedness of pituitary growth hormone from various vertebrate classes. *Nature*, 222: 294-295.—The greater the phylogenetic distance from mammals, the fewer were the antigenic determinants shared between mammalian growth hormone and the growth hormone from vertebrate species representing five other classes.—K.P.A.
- HÖHN, E. O. 1970. Gonadal hormone concentrations in Northern Phalaropes in relation to nuptial plumage. *Canadian J. Zool.*, 48: 400-401.—A sample of pre-breeding-season gonads of *Lobipes lobatus* showed a high ovarian ratio of testosterone/estradiol and a greater concentration of testosterone in the ovaries than in the testes. In conjunction with an earlier study (Höhn, and S. C. Cheng. 1967. Gonadal hormones in Wilson's Phalarope and other birds in relation to plumage and sex behavior. *Gen. Comp. Endocrinol.*, 8: 1-11) that showed the nuptial plumage in phalaropes to be androgen-dependent, these facts explain the more colorful nuptial plumage of the female compared to that of the male.—H.W.K.
- HUGHES, M. R. 1969. Ionic and osmotic concentration of tears of the gull *Larus glaucescens*, acclimated to increasing concentrations of sea water. *Comp. Biochem. concentrations of Na, K, and Cl ions, measured in the tears and plasma of Glaucous-winged Gulls that were drinking fresh water and dilutions of seawater, revealed that in comparison with plasma, tears were hypertonic in Na and Cl, isotonic in K, and hyperosmotic. Unlike the Peking duck (see below) the gull has no difficulty in excreting ingested K via salt glands and kidneys.—H.W.K.*
- 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.—In individuals acclimated to various dilutions of sea water, cloacal fluids were usually (319 of 331 cases in Na and 331 of 336 in Cl) hypotonic to plasma. Cloacal retention lowered both Na and Cl of the fluid. Hypertonic salt gland secretion was observed in gulls acclimated to dilute sea water and ionic concentration increased with salinity of drinking water. A major portion of injected Na and K may be excreted extrarenally even in the absence of osmotic

- stress, and cation concentration of salt-gland secretion depends on the magnitude of osmotic stress.—A.H.B.
- HUGHES, M. R., AND F. E. RUCH, JR. 1969. Sodium and potassium in spontaneously produced salt gland secretion and tears of ducks, *Anas platyrhynchos*, acclimated to fresh and saline waters. *Canadian J. Zool.*, 47: 1133-1138.—Acclimation to seawater did not enhance concentrating ability of salt glands in Peking ducks. NaCl concentrations exceeded those of seawater slightly. Tears of acclimated birds contained less Na and more K than birds drinking water with low NaCl content. The authors suggest an osmoregulatory function for tears may exist whereby significant quantities of cations may be eliminated. Sea ducks would be more suitable experimental subjects to determine this.—H.W.K.
- JOHN, T. M., AND J. C. GEORGE. 1967. Cyclic histochemical changes in the hypothalamo-hypophyseal neurosecretory system of the migratory wagtails, *Motacilla alba* and *Motacilla flava*. *J. Anim. Morphol. Physiol.*, 14: 216-222.—Storage of neurosecretory material is greater before migration than after. Release of this material is considered the trigger for coordinated action of the other endocrine glands in migration.—R.W.S.
- LASEWSKI, R. C., W. R. DAWSON, AND G. A. BARTHOLOMEW. 1970. Temperature regulation in the Little Papuan Frogmouth, *Podargus ocellatus*. *Condor*, 72: 332-338.
- LOCKE, L. N., G. E. BAGLEY, AND H. D. IRBY. 1966. Acid-fast intranuclear inclusion bodies in the kidneys of Mallards fed lead shot. *Bull. Wildl. Dis. Assoc.*, 2: 127-131.—Adult male and female Mallards maintained on whole or cracked corn, or on grain-duck pellet diets and fed 1, 3, or 8 number 6 lead shot developed acid-fast intranuclear inclusion bodies in the proximal convoluted tubules of the kidney. None were found in birds fed 1 or 3 lead shot and given a duck pellet diet. In man the presence of such bodies is considered good evidence of lead intoxication. The authors suggest it may be used similarly for waterfowl.—S.C.W.
- MARKERT, C. L., AND Y. MASUI. 1969. Lactate dehydrogenase isozymes of the penguin *Pygoscelis adeliae*. *J. Exp. Zool.*, 172: 121-146.—The 15 isozymes resolved can be classified into five groups, each group corresponding to one of the five major LDH isozymes found in mammals. The 15 isozymes may be produced by three subunits associating as tetramers. All are present in all adult tissues. (Modified from authors' abstract.)—A.S.G.
- MOLDENHAUER, R. R., AND J. A. WIENS. 1970. The water economy of the Sage Sparrow, *Amphispiza belli nevadensis*. *Condor*, 72: 265-275.
- MOSS, B. A., AND E. O. P. THOMPSON. 1969. Haemoglobins of the adult domestic fowl, *Gallus domesticus*. *Australian J. Biol. Sci.*, 22: 1455-1471.—Major hemoglobins were resolved into two components (HbI and HbII) by cation-exchange chromatography. A one per cent acidic component was present. Amino acid analysis of the components and their globin subunits revealed the presence of four different globin chains. Composition analysis and peptide mapping suggest a close relationship between the beta chains.—A.H.B.
- MUGAAS, J. N., AND J. R. TEMPLETON. 1970. Thermoregulation in the Red-breasted Nuthatch (*Sitta canadensis*). *Condor*, 72: 125-132.
- MURTON, R. K., B. LOFTS, AND N. J. WESTWOOD. 1970. Manipulation of photorefractoriness in the House Sparrow *Passer domesticus* by circadian light regimes. *Gen. Comp. Endocrinol.*, 14: 107-113.—Three groups of *Passer domesticus* captured at the end of the breeding season when gonad regression was in progress, were held for 35 days on a photoperiod of 6L:18D. A 1-hour light pulse was

- given at different times during the dark period in different groups. The testes of all three groups were fully regressed at the end of 35 days, but in two of the groups (those with light pulses 12 and 16 hours before "dawn") an expanded interstitium had been acquired. The survivors of each group were then placed on a light regime of 16L:8D for 34 additional days. One group (light pulse 8 hours from "dawn") responded with complete spermatogenesis, but in the two groups with expanded interstitia, the testes remained regressed. It is postulated that avian refractoriness may involve varying FSH/LH titers. The differential release of the hormones is dependent upon different photosensitive phases of the circadian rhythm.—K.P.A.
- MYRCHA, A., AND J. PINOWSKI. 1970. Weights, body composition, and caloric value of postjuvencal molting European Tree Sparrows (*Passer montanus*). *Condor*, 72: 175-181.
- OWEN, R. B., JR. 1970. The bioenergetics of captive Blue-winged Teal under controlled and outdoor conditions. *Condor*, 72: 153-163.
- PEAKALL, D. B. 1969. Effect of DDT on calcium uptake and vitamin D metabolism in birds. *Nature*, 224: 1219-1220.—Calcium uptake from the gastrointestinal tract of intact Zebra Finches (*Poephila guttata*) is not affected by DDT. *In vitro* metabolism of vitamin D (by hepatic microsomal fractions from Ring Doves (*Streptopelia risoria*)) is not increased even though a doubling of oestradiol metabolism occurs. Thin eggshells, therefore, seem to result from alterations in the storage and mobilization of calcium after "ingestion," rather than action at the initial step of this process.—K.P.A.
- PROVINE, R. R., S. C. SHARMA, T. T. SANDEL, AND V. HAMBURGER. 1970. Electrical activity in the spinal cord of the chick embryo, *in situ*. *Proc. Natl. Acad. Sci.*, 65: 508-515.—Unit activity recorded from single neurons of the lumbo-sacral area in 15-, 17-, and 19-day embryos in the dorsal columns showed continuous single-unit activity. Below lies an area of relative quiet. The ventral two-thirds of the cord was the most active region, characterized by polyneuronal bursts and intermittently active single units.
- RALPH, C. L., AND K. B. LANE. 1969. Morphology of the pineal body of wild House Sparrows (*Passer domesticus*) in relation to reproduction and age. *Canadian J. Zool.*, 47: 1205-1208.—No correlation of changes in the structural appearance of the pineal of either sex was found with season or with gonad size. However the pineal changed during the first 90 days of life from a loose, highly folliculated body to a compact solid structure, and its size tended to decrease with an increase in age from 30 to 180 days. Pineal influence on gonadal function may be age dependent and transitory.—H.W.K.
- RAMSEY, J. J. 1970. Temperature changes in Chimney Swifts (*Chaetura pelagica*) at lowered environmental temperatures. *Condor*, 72: 225-229.
- SACHS, B. D. 1969. Photoperiodic control of reproductive behavior and physiology of the male Japanese Quail (*Coturnix coturnix japonica*). *Hormones and Behavior*, 1: 7-24.—Males previously maintained on long days were brought out of breeding condition by entrainment to short days (8L:16D). Long days (16L:8D) sustained peak reproductive condition or returned males to breeding condition in 10-15 days. Twelve-month-old males were stimulated more easily by long days and less readily inhibited by short days than 6-month-old birds. Long days always produced breeding condition, suggesting that no refractory period exists in this species. Exogenous testosterone propionate (ca. 100 mg subcutaneous pellet) prevented inhibition of breeding condition by transfer to short days, but caused regression

- of the testes. In males held on short photoperiods, exogenous testosterone had the same effects as transfer to long days.—K.P.A.
- STETSON, M. H. 1969. Formation of secondary neurohemal organs in the median eminence of the White-crowned Sparrow and Japanese Quail. *Gen. Comp. Endocrinol.*, 13: 392-398.—Midline electrolytic or radio frequency lesions were placed in the basal hypothalamus of adult birds. In White-crowned Sparrows destruction of the neurohemal organs of the stainable hypothalamo-hypophyseal neurosecretory system resulted in the formation of large aggregations of neurosecretory material surrounding hypertrophied capillaries. Very few of these were found in the quail. Secondary neurohemal organs in the sparrow may represent neurovascular organs of the neural lobe and/or anterior division of the median eminence.—K.P.A.
- THAPLIYAL, J. P., AND K. BAGESHWAR. 1970. Light responses of thyroidectomized Common Weaver Birds, *Ploceus philippinus*. *Condor*, 72: 190-195.

TAXONOMY AND PALAEOLOGY

- ALDRICH, J. W., AND K. P. BAER. 1970. Status and speciation in the Mexican Duck (*Anas diazi*). *Wilson Bull.*, 82: 63-73.
- BANKS, R. C. 1970. Molt and taxonomy of Red-breasted Nuthatches. *Wilson Bull.*, 82: 201-205.
- BANKS, R. C., AND W. H. BOHL. 1968. Pentland's Tinamou in Argentina (Aves: Tinamidae). *Proc. Biol. Soc. Washington*, 81: 485-489.—Comparisons of 15 *Nothoprocta pentlandii*, collected in Mendoza, San Luis, and Cordoba provinces at or near the southern end of the species range, with specimens from northern provinces revealed two distinct southern populations. The three subspecies thus recognized are the northerly race *N. p. pentlandii*, *N. p. doeringi* from central Argentina, and *N. p. mendozae* subsp. nov. from the northwestern corner of the province of Mendoza, found at elevations of 3,000 feet or more.—C.F.S.
- BENSON, C. W. 1970. The systematic status of the form of *Streptopelia picturata* on Diego Garcia. *Bull. Brit. Ornithol. Club*, 90: 32-35.—*Streptopelia picturata chuni* of the Chagos Archipelago is perhaps a hybrid between nominate *picturata* and *S. p. comorensis*, stocks of which may have been introduced from Mauritius and the Comoros Islands respectively.—F.B.G.
- BO, N. A. 1969. Acerca de la afinidad de dos formas de *Serpophaga*. *Neotropica*, 15: 54-58.—The relationship between *S. subcristata* and *S. munda* has been in doubt. Examination of specimens indicates that hybridization occurs in northern Argentina, where morphologically typical specimens of both parental forms and varying intermediates occur. (English summary.)—E.E.
- BROOKE, R. K. 1970. The buccal colours, weights and races of *Nectarinia bifasciata*. *Bull. Brit. Ornithol. Club*, 90: 11-14.—Taxonomically important differences in mouth-lining color of freshly killed sunbirds may exist. *N. b. strophium* is probably a gray-throated phase of *N. b. microrhyncha*. *N. b. microrhyncha* is more variable in plumage color and size than is usual in sunbirds other than *N. venusta*.—F.B.G.
- CLANCEY, P. A. 1969. On the status of *Coracias weigalli* Dresser, 1890. *Ostrich*, 40: 156-162.—A valid race of southern Tanzania and northeastern Mozambique.—M.A.T.
- CLANCEY, P. A. 1969. The South African sub-region races of the Three-streaked Tchagra *Tchagra australis* (Smith). *Arnoldia* (Rhodesia), 4 (29): 12 pp.
- CLANCEY, P. A. 1970. Miscellaneous taxonomic notes on African Birds XXVIII.

- Durban Mus. Novitates, 8: 325-351.—Includes: The wintering races of *Hirundo rustica* and *Phylloscopus trochilus*; anomalous specimens of *Camaroptera brachyura*; *Camaroptera fasciolata europila* subsp. nov. from western Transvaal; *Lanius souzae tacitus* subsp. nov. from eastern Zambia; *Euplectes progne definita* subsp. nov. from western Zambia; and notes on *Lagonosticta rhodopareia jamesoni*.—M.A.T.
- DICKERMAN, R. W., AND A. R. PHILLIPS. 1970. Taxonomy of the meadowlark (*Sturnella magna*) in central and southern Mexico and Caribbean Central America. *Condor*, 72: 305-309.
- GILL, F. B. 1970. The taxonomy of the Mascarene Olive White-eye, *Zosterops olivacea* (L.). *Bull. Brit. Ornithol. Club*, 90: 81-82.—Recommends that *Zosterops olivacea olivacea* (L.) of Reunion Island and *Zosterops olivacea chloronothos* (Vieillot) of Mauritius Island be considered specifically distinct.—F.B.G.
- HARRISON, C. J. O. 1969. The possible affinities of the Australian treecreepers of the genus *Climacteris*. *Emu*, 69: 161-168.—Previously *Climacteris* has been considered related to the Certhiidae, Malurinae, or Acanthizinae, but general habits and morphology (e.g. brush tongue and lack of rictal bristles) suggest they arose from the Meliphagidae.—L.L.S.
- HARRISON, C. J. O. 1970. The relationship of the brown and black-backed treecreepers. *Emu*, 70: 9-11.—Populations of *Climacteris p. picumnus* and *C. p. melanota* either form an interrupted cline, or interbreed to form an intermediate population in the Kirrima Tableland. In either case the author recommends treating them as conspecific.—L.L.S.
- HARRISON, C. J. O., AND C. A. WALKER. 1970. The extinct Musk Duck (*Biziura*) of New Zealand: a re-appraisal of *B. lautouri*. *Bull. Brit. Ornithol. Club*, 90: 6-10.—The authors know of four isolated fossil bones from New Zealand referable to the genus *Biziura*, none of which can be separated from the living Australian species *B. lobata* by form or size. (From authors' summary.)—F.B.G.
- HOLYOAK, D. 1970. Comments on the classification of the Old World ibises. *Bull. Brit. Ornithol. Club*, 90: 67-73.—Examination of museum skins and distribution patterns suggest that 1) *Pseudibis papillosa* and *P. davisoni* should be considered conspecific, 2) *Pseudibis* and *Thaumatibis* are related and in need of anatomical study, 3) *Threskiornis aethiopicus*, *T. melanocephala*, and *T. molucca* are conspecific, 4) the monotypic genus *Carphibis* should be merged with *Threskiornis*, 5) *Geronticus eremita* and *G. comata* form a superspecies.—F.B.G.
- MACDONALD, J. D. 1969. Notes on the taxonomy of *Neositta*. *Emu*, 69: 169-174.—This is the latest of a number of papers by various authors treating the relationships among the sittellas (*Neositta*) of Australia. *Neositta leucoptera* and *N. striata* appear to be allopatric, and do not interbreed as had been suggested previously. *N. leucocephala* is the valid name for the white-headed sittellas of Queensland. A narrow hybrid zone exists between *N. leucocephala* and *N. chrysoptera* in north-eastern New South Wales and southeastern Queensland.—L.L.S.
- MARTIN, L. D., AND J. TATE, JR. 1970. A new turkey from the Pliocene of Nebraska. *Wilson Bull.*, 82: 214-218.
- MASCHER, J. W. 1970. [Skedemosse—a prehistoric bird marsh on the Baltic island of Öland.] *Vår Fågelvärld*, 29: 1-5.—Archaeological excavations revealed remains of 180 birds of 39 species, dated from about 1000 B.C. to 1000 A.D. All species are represented in the extant Öland avifauna. (In Swedish; English summary.)—L.d.K.L.

- MURRAY, B. G. 1970. A redescription of two Pliocene cormorants. *Condor*, 72: 293-298.
- NIETHAMMER, G. 1969. Vergleich der Renthendorfer Haussperlinge von heute mit einer von C. L. Brehm vor 110 Jahren gesammelten Serie. *J. Ornithol.*, 110: 205-208.—Comparison of House Sparrows collected in 1815-1854 with a series taken in 1963-1965 in the same locality shows that the chestnut color of the nape was more intense in the nineteenth century and that chestnut feathers in the black throat patch may have been more common than now. (English summary.)—H.C.M.
- PRESCOTT, K. W. 1970. A new subspecies of the Common Iora from north Borneo. *Bull. Brit. Ornithol. Club*, 90: 39-40.—*Aegithina tiphia toudiae* subsp. nov. from the small island of Muara, Brunei Bay, just a few miles from the Bornean mainland.—F.B.G.
- RAY, C. E., A. WETMORE, D. H. DUNKLE, AND P. DREZ. 1968. Fossil vertebrates from the marine Pleistocene of southeastern Virginia. *Smithsonian Misc. Coll.*, 153: 25 pp. + 2 pl.—Bird bones include the first North American fossils of *Morus bassanus*, *Larus hyperboreus*, and *Pinguinus impennis*. Bones of immature gannets indicate breeding far south of present limits. Other birds represented are *Podiceps auritus*, *Phalacrocorax auritus*, *Branta bernicla*, and *Uria aalge*.—C.F.S.
- RUDEBECK, G. 1970. A new race of the Spike-heeled Lark, *Chersomanes albofasciata*, from Angola. *Ornis Scandinavica*, 1: 45-49.—A new race described from Humdata Plateau in western Huila adds another subspecies to the long list for this lark. It is noted that the taxonomy within the species is confused, but that *longispina* is distinct and merits subspecific status.—B.A.H.
- SCARLETT, R. J. 1970. A small woodhen from New Zealand. *Notornis*, 17: 68-74.—Describes a new woodhen, *Gallirallus hartreei*, which is smaller than *G. minor*.—G.D.S.
- SHORT, L. L. 1970. The habits and relationships of the Magellanic Woodpecker. *Wilson Bull.*, 82: 115-129.
- SHORT, L. L., JR. 1970. Mid-Pleistocene birds from western Nebraska, including a new species of sheldgoose. *Condor*, 72: 147-152.
- STORER, R. W. 1969. What is a tanager? *Living Bird*, 8: 127-137.—A discussion of certain groups within the large and taxonomically complex "nine-primaried" songbirds accompanied by 10 superb color portraits. The author recommends closer study of plumage pattern, color, and texture, and continued gathering of life history data. Bill shape has changed relatively rapidly in several groups leading to convergences and divergences that obscure phylogenetic relationships. Several examples are detailed. The photographs, taken by John S. Dunning, are of netted birds placed in an enclosure bedecked with fresh foliage.—G.E.W.
- STRESEMANN, E., AND V. STRESEMANN. 1969. Die Mauser der Schopfkuuckue (*Clamator*). *J. Ornithol.*, 110: 192-204.—The four species of *Clamator* differ from other cuckoos in the sequence of the molt of the primaries, providing another justification for the isolated position of the genus. (English summary.)—H.C.M.
- TRAYLOR, M. A. 1970. Two new birds from the Ivory Coast. *Bull. Brit. Ornithol. Club*, 90: 78-80.—Describes *Campethera nivosissima* subsp. nov., which has a longer wing than *C. n. nivosissima*, and *Muscicapa griseigularae parelii* subsp. nov., which differs from *griseigularae* in having a blackish lower mandible and proportionately longer tail.—F.B.G.
- TRAYLOR, M. A. 1970. A new race of *Serinus citrinelloides*. *Bull. Brit. Ornithol. Club*, 90: 83-86.—Reviews *S. citrinelloides* and related species showing that *S.*

- koliensis* is a good species and that a new race, *Serinus citrinelloides brittoni* subsp. nov., should be distinguished in northwestern Kenya.—F.B.G.
- WALDMAN, M. 1970. A third specimen of a Lower Cretaceous feather from Victoria, Australia. *Condor*, 72: 377.
- WETMORE, A. 1967. Pleistocene Aves from Ladds, Georgia. *Bull. Georgia Acad. Sci.*, 25: 151-153.—These bird bones represent the first bird species recorded from the Pleistocene between northern Virginia and northern Florida. Included are *Canachites canadensis* (the most southern record for this grouse species), *Anas rubripes*, *Meleagris gallopavo*, *Ectopistes migratorius*, and three unidentified passerine species.—C.F.S.
- WETMORE, A. 1970. Descriptions of additional forms of birds from Panama and Colombia. *Proc. Biol. Soc. Washington*, 82: 767-776.—New subspecies described are *Metallura primolinus recisa* and *Sittasomus griseicapillus enochrus* from Colombia and *Glyphorhynchus spirurus pallidulus*, *Xenops rutilans incomptus*, *Thamnophilus doliatus nesiotus*, and *Oryzoborus crassirostris loftini* from Panamá. The Racquet-tailed Hummingbird *Ocreatus underwoodi discifer* and the Striped-breasted Spinetail *Synallaxis cinnamomea aveldoi* are added to Meyer de Schauensee's 1964 list of the birds of Colombia.—C.F.S.

OBITUARIES

ALFRED BRAZIER HOWELL.—A remarkable case of a man of limited formal education not only rising to a pinnacle of success in three fields, namely ornithology, mammalogy, and comparative anatomy of vertebrates, but also coming to hold a high academic position in a leading university, is seen in the career of the late A. Brazier Howell. Born on 28 July 1886 in Catonsville, Maryland, he attended the Sheffield Scientific School in 1905-06 and Yale University in 1908. This apparently was the extent of his formal higher education. He manifested an interest in birds during boyhood when he started a collection of eggs. He affiliated with the Cooper Ornithological Club in 1908 and the A.O.U. in 1909, becoming an Elective Member of the latter organization in 1916. A family move to Pasadena in 1910 brought him in contact with several active members of the Cooper Ornithological Club in southern California. This accentuated his ornithological interests and he started studying for his personal pleasure the birds occurring on the Channel Islands along the coast of southern California. At the urging of Joseph Grinnell he prepared a formal report on his findings which the Cooper Ornithological Club published in 1917 as Pacific Coast Avifauna No. 12. This was his principal work on birds.

For several years he assisted the business manager of the Cooper Ornithological Club and eventually assumed charge of the endowment fund. He formally served as Secretary in 1913 and Vice-President in 1921. From funds that he personally donated to the club comes the annual A. Brazier Howell award of \$150.00 made each year to the student presenting the best paper at the annual meeting. In 1955 he was made an honorary member of the Cooper Ornithological Society.

During his years in southern California he accumulated a private collection of birds and mammals, doing much field work himself, but also employing from time to time as collectors and field assistants such persons as A. J. van Rossem, Chester Lamb, and Laurence Huey. He interested van Rossem in the birds of El Salvador, which became one of the latter's major contributions. The Howell collection was