

PERIODICAL LITERATURE

EDITED BY GLEN E. WOOLFENDEN

A NEW JOURNAL

CALIFORNIA BIRDS. Vol. 1, No. 1, January 1970.—The Journal of California Field Ornithologists will focus on field observations: distribution, range dynamics, seasonal status, timing of migration, behavior, ecology, population dynamics, identification, and conservation problems, particularly in California. Articles in this volume are abstracted below under their respective subjects.—R.W.S.

ANATOMY AND EMBRYOLOGY

BOCK, W. J., AND R. S. HIKIDA. 1969. Turgidity and function of the hatching muscle. *Amer. Midl. Naturalist*, 81: 99–106.—Lymph found within the hatching muscle arises there and does not interfere with the contraction or shortening of the muscle. The primary function of this lymph may be to transform the hatching muscle into a turgid cushion that serves to brace the head when the egg tooth is pressed against the shell.—G.D.S.

BRITTON, P. L. 1970. The immature plumage of two African warblers. *Bull. Brit. Ornithol. Club*, 90: 26–28.—Describes previously unknown immature plumages of *Bradypterus graueri carpalis* Chapin and *Cisticola carruthersi* Ogilvie-Grant.—F.B.G.

BRUNING, D. 1970. Conjoined twin Darwin's Rhea. *Wilson Bull.*, 82: 219–220.

GRINYER, I., AND J. C. GEORGE. 1969. Some observations on the ultrastructure of the hummingbird pectoral muscles. *Canadian J. Zool.*, 47: 771–775.—An electron microscopic study of the breast muscles, pectoralis and supracoracoideus, that form about 21 to 35 percent of the body weight of the Ruby-throated Hummingbird. Hummingbird hovering flight is attributed to features of the pectoralis not found in other birds.—H.W.K.

HARRISON, C. J. O. 1970. The crop of the Chaffinch *Fringilla coelebs*. *Bull. Brit. Ornithol. Club*, 90: 15–16.—Young and adults occasionally store food in bilobed extensions of the oesophagus like typical cardueline finches.—F.B.G.

HUGHES, M. R. 1970. Relative kidney size in nonpasserine birds with functional salt glands. *Condor*, 72: 164–168.

PAYNE, R. B. 1970. The mouth markings of juvenal *Vidua regia* and *Uraeginthus granatinus*. *Bull. Brit. Ornithol. Club*, 90: 16–18.—*V. regia* mimics its song model and host, *U. granatinus*, in juvenile mouth markings as well as in color and pattern of the juvenal plumage.—F.B.G.

PURTON, M. D. 1969. Structure and ultrastructure of the liver in the domestic fowl, *Gallus gallus*. *J. Zool.*, 159: 272–282.—Describes circulation to and within the chicken liver and the organization of its components. Several differences from the mammalian condition are noted, among them: (1) additional inputs to the hepatic portal vein in the form of the coccygeomesenteric vein, along which blood may flow in either direction, and two gastric veins; (2) less clearly defined lobules; (3) parenchymal sheets that are two rather than one cell thick (this character may be primitive in birds as higher orders do not show it); (4) the endothelial lining of the sinusoids is fenestrated and partially discontinuous.—A.S.G.

- QUAY, W. B. 1968. Occurrences and biological significance of pineal atrophy among families of birds. *Amer. Zool.*, 8: 762-763.—Microscopic examination of pineals and brains from 90 birds of about 40 families reveals no evident relationship of pineal development to behavioral patterns.—S.C.W.
- SCHÖNWETTER, M. (ed. and continued by W. Meise). 1970. *Handbuch der Oologie*, Lief. 17: 193-256. Akademie-Verlag, 108 Berlin, Leipziger Strasse 3-4, Germany. Price, 14 German marks.—This part of the handbook of oology completes the treatment of Hirundinidae and covers Motacillidae, Campephagidae, and part of Pycnonotidae. For method of treatment see earlier reviews. In the Motacillidae the eggs of the peculiar *Macronyx* are the most different; those of the *Motacilla alba* species group (Rassenkreis) and the genus *Oreocorys* differ from those of other *Motacilla*; those of *Anthus trivialis* differ from other *Anthus* eggs and resemble eggs of *Neocorys* and *Dendronanthus*; within the current species *A. novaeseelandiae* considerable differences exist in the eggs of some subspecies. In the Campephagidae each genus has its own egg type. The eggs of the Pycnonotidae fall into two groups; eggs of the genus *Pycnonotus* and its allies are rather uniform, but those of the other genera are different and generically varied (eggs of *Andropadus* and *Arizelocichla*, now merged in *Pycnonotus*, are not of the *Pycnonotus* style). Eggs of African bulbuls (except for those of *Pycnonotus*) tend to be distinctly paler in color and markings than those of their Asian relatives.—E.E.
- SIMONETTA, A. 1967. [Kinesis and morphology of the skull in non-passeriform birds. Studies on various evolutionary tendencies. Part 2, Striges, Caprimulgiformes, and Apodiformes.] *Arch. Zool. Ital.*, 52: 1-36.—Skull mechanics and morphology in nonpasserines (see earlier paper, *Arch. Zool. Ital.*, 48: 53-135, 1963). In skull morphology hummingbirds are not at all like swifts, and the latter are much more like nightjars. *Steatornis* shows considerable similarity to the owls; in some respects it is more like owls than like other groups placed in Caprimulgiformes. Many drawings. (In Italian; English summary.)—E.E.
- SMITH, N., AND V. E. ENGELBERT. 1969. Erythropoiesis in chicken blood. *Canadian J. Zool.*, 47: 1269-1273.—A form of erythropoiesis occurs in the peripheral blood of young domestic chickens that differs radically from descriptions in classical hematology. Classical mitosis is not involved.—H.W.K.

BEHAVIOR

- AUSTIN, G. T. 1970. Interspecific territoriality of migrant Calliope and resident Broad-tailed Hummingbirds. *Condor*, 72: 234.
- BARFIELD, R. J. 1969. Activation of copulatory behavior by androgen implanted into the preoptic area of the male fowl. *Hormones and Behavior*, 1: 37-52.—Each of 59 castrated chickens received an implant of testosterone propionate in the fore-brain. Copulatory behavior was observed in 14 of 19 birds with implants in the preoptic area. None of the normally associated courtship or aggressive behavior was seen.—K.P.A.
- BLAKER, D. 1969. Behavior of the Cattle Egret *Ardeola ibis*. *Ostrich*, 40: 75-129.—A thorough description of habits and breeding behavior near Cape Town. A similar comparative study of our recent immigrants would be informative.—M.A.T.
- BLAKER, D. 1969. The behavior of *Egretta garzetta* and *E. intermedia*. *Ostrich*, 40: 150-155.—The behavior of two heron species (*Egretta*) compared with that of *Ardeola ibis* (see above).—M.A.T.

- CURIO, E., R. BLAICH, AND N. RIEDER. 1970. Two innate releasing mechanisms subserving the same motor pattern system. *Nature*, 225: 750-751.—The mobbing responses of Pied Flycatchers (*Ficedula hypoleuca*) to owls and shrikes are released through two separate innate releasing mechanism (IRM) systems.—K.P.A.
- DIXON, K. L., AND R. A. STEFANSKI. 1970. An appraisal of the song of the Black-capped Chickadee. *Wilson Bull.*, 82: 53-62.
- EDDINGER, C. R. 1970. The White-eye as an interspecific feeding helper. *Condor*, 72: 240.
- ENDERS, F. 1970. The double-scratch in the Seaside Sparrow. *Wilson Bull.*, 82: 225.
- FORSYTHE, D. M. 1970. Vocalizations of the Long-Billed Curlew. *Condor*, 72: 213-224.
- GLADING, B., AND C. H. GLADING. 1970. An instance of a captive Turkey Vulture killing prey. *Condor*, 72: 244-245.
- HAVERSCHMIDT, F. 1970. Ruddy Turnstones making use of Yellow-crowned Night Herons for food-finding. *Wilson Bull.*, 82: 99.
- HAVERSCHMIDT, F. 1970. Barn Owls hunting by daylight in Surinam. *Wilson Bull.*, 82: 101.
- HAVERSCHMIDT, F. 1970. Rufous-crowned Tanagers feeding on fruitbowl. *Wilson Bull.*, 82: 228.
- HAYS, H. 1970. Common Terns pirating fish on Great Gull Island. *Wilson Bull.*, 82: 99-100.
- HAYS, H., AND G. DONALDSON. 1970. Sand-kicking camouflages young Black Skimmers. *Wilson Bull.*, 82: 100.
- HELFENSTEIN, M., AND C. H. NARAYANAN. 1969. Effects of bilateral limb-bud extirpation on motility and prehatching behavior in chicks. *J. Exp. Zool.*, 172: 233-244.—Total motility of legless chicks does not differ significantly from that of controls between 11 and 17 days. The legless chicks show a reasonably normal repertory of prehatching movements but, probably for mechanical reasons, do not attain the appropriate prehatching position and cannot hatch. "Rescued" chickens have normal feeding, drinking, and hatching movements and develop individualized (depending on degree of limblessness) techniques of locomotion.—A.S.G.
- ICKES, R. A., AND M. S. FICKEN. 1970. An investigation of territorial behavior in the American Redstart utilizing recorded songs. *Wilson Bull.*, 82: 167-176.
- JENKINSON, M. A., AND R. M. MENGEL. 1970. Ingestion of stones by goatsuckers (*Caprimulgidae*). *Condor*, 72: 236-237.
- KJOS, C. G., AND W. W. COCHRAN. 1970. Activity of migrant thrushes as determined by radio-telemetry. *Wilson Bull.*, 82: 225-226.
- KNEUTGEN, J. 1969. Zwei Vögel verschiedener Arten verständigen sich in einer "Fremdsprache" Beobachtung zur interspezifischen Kommunikation. *J. Ornithol.*, 110: 153-160.—Both a Robin and a Linnnet living in a cage together with birds of other species used the call and the song of a Bullfinch for interspecific communication. (English summary.)—H.C.M.

- LEE, J. A. 1970. Some observations on the dispersal of fledgling Purple Martins from the nesting site. *Chat*, 34: 1-2.—Young emerge from the nest one at a time, and are mobbed by other colony members until outside their "mobbing range." One of the parents, which has been in close attendance but not mobbing, remains with the fledgling until it perches. This procedure is repeated until the brood is brought together in a group well isolated from the colony. The young remain with the parents for about 3 weeks.—F.E.L.
- LITTLEFIELD, C. D. 1970. A Marsh Hawk roost in Texas. *Condor*, 72: 245.
- MACROBERTS, M. H. 1970. Notes on the food habits and food defense of the Acorn Woodpecker. *Condor*, 72: 196-204.
- MEANLEY, B. 1970. Method of searching for food by the Swainson's Warbler. *Wilson Bull.*, 82: 228.
- MERRELL, T. R., JR. 1970. A swimming Bald Eagle. *Wilson Bull.*, 82: 220.
- MUELLER, H. C. 1970. Circle-soaring by migrating nighthawks. *Wilson Bull.*, 82: 227.
- NERO, R. W. 1970. Sharp-tailed Grouse gives aggressive display to automobiles. *Wilson Bull.*, 82: 221-222.
- ONIKI, Y. 1970. Roosting behavior of three species of woodcreepers (Dendrocolaptidae) in Brazil. *Condor*, 72: 233.
- PULLMAN, J. O. 1970. A Tufted Titmouse nest attended by Carolina Chickadees. *Chat*, 34: 22.
- RUPPELL, G. 1969. Beitrage zum Verhalten des Krabbentauchers (*Plautus alle alle*). *J. Ornithol.*, 110: 161-169.—Breeding behavior of the Dovekie in West Spitzbergen. (English summary.)—H.C.M.
- SELANDER, R. K. 1970. Parental feeding in a male Great-tailed Grackle. *Condor*, 72: 238.
- SIMPSON, M. B., JR. 1969. Avian commensal adaptations to human machines. *Chat*, 33: 79-80.—*Contopus virens* and *Dumetella carolinensis* attending a gasoline powered lawn mower.—F.E.L.
- SMITH, S. M. 1970. "Foot-trembling" feeding behavior by a Killdeer. *Condor*, 72: 245.
- SOUTHERN, W. E. 1970. Marsh Hawk chases crows mobbing owl. *Wilson Bull.*, 82: 98-99.
- SOUTHERN, W. E. 1970. En route behavior of homing Herring Gulls as determined by radio-tracking. *Wilson Bull.*, 82: 189-200.
- THIELCKE, G. 1969. Die Reaktion von Tannen- und Kohlmeise (*Parus ater*, *P. major*) auf den Gesang nahverwandter Formen. *J. Ornithol.*, 110: 148-157.—Songs of *Parus ater* and *P. melanolophus* are identical to the human ear and indistinguishable on sound spectrograms. *P. melanolophus* responds to playbacks of the song of *P. ater* with essentially the same response it gives to playbacks of its own species. Although the songs of the above species differ only slightly from the songs of south German *P. major*, the latter species distinguishes between its song and those of *P.*

- ater and *P. melanolophus*. The songs of Asiatic *P. major* differ greatly from those of the German race and are not recognized by German birds. (English summary.)—H.C.M.
- TOLONEN, E. K. 1970. Ring-billed Gull and Laughing Gull catch fish by "ploughing" and "skimming." *Wilson Bull.*, 82: 222-223.
- WEISBROD, A. R. 1970. Food preferences of a hand-raised Blue Jay. *Wilson Bull.*, 82: 101-102.
- WHITE, S. J., R. E. C. WHITE, AND W. H. THORPE. 1970. Acoustic basis for individual recognition by voice in the Gannet. *Nature*, 225: 1156-1158.—Individual male *Morus bassanus* are recognizable on the basis of their calls. Frequency-time parameters of the calls showed considerable overlap, but amplitude changes were highly individual. Computer matching of calls with individuals was possible on the basis of amplitude changes in the first few peaks and troughs of the call note.—K.P.A.
- WILSON, M. F. 1970. Foraging behavior of some winter birds of deciduous woods. *Condor*, 72: 169-174.
- WINKEL, W. 1969. Über das "Eierrollen" von Eiattrappen bei Zwergwachteln (*Excalfactoria chinensis*). *J. Ornithol.*, 110: 209-218.—Careful, exhaustive experiments on the egg-rolling behavior of Painted Quail. Birds retrieved eggs from distances of 8 cm. and more. Hard and plain surface and color of the egg were important; size and shape were not. (English summary.)—H.C.M.
- WOLHUTER, B. R., AND F. KISH. 1970. Courtship display observed between two species of buteos. *Wilson Bull.*, 82: 96-97.
- ZEIER, H. 1970. Lack of eye to eye transfer of an early response modification in birds. *Nature*, 225: 708-709.—The visual cliff response of newly hatched chicks was abolished by rearing them on glass over the "deep" side of the cliff. When this was done with one eye occluded, the induced loss of preference for the shallow side, unlike imprinting, did not transfer to the other eye when the occlusion was reversed.—K.P.A.

DISEASES AND PARASITES

- ADDISON, E. M., AND R. C. ANDERSON. 1969. *Oxyspirura lumsdeni* n. sp. (Nematoda: Thelaziidae) from Tetraonidae in North America. *Canadian J. Zool.*, 47: 1223-1227.—Description of a new species of *Oxyspirura* from Sharp-tailed, Sage, and Ruffed Grouse, Lesser Prairie Chickens and a Greater Prairie Chicken×Sharp-tailed Grouse hybrid from North America.—H.W.K.
- ANDERSON, R. C., AND A. K. PRESTWOOD. 1969. *Paronchocerca bumpae* n. sp. from the Brushland Tinamou and the position of *Paronchocerca* within the Splendidofilariinae (Filarioidea). *Canadian J. Zool.*, 47: 1325-1331.—Description of a new species of Onchocercidae from the heart of *Nothoprocta cinerascens* of Argentina and a review and redefinition of the genus *Paronchocerca*, including a key to the main genera of Splendidofilariinae from birds.—H.W.K.
- BLACKMORE, D. K., AND I. F. KEYMER. 1969. Cutaneous diseases of wild birds in Britain. *Brit. Birds*, 62: 316-331.—Includes six photos.—H.B.
- KEES, V. 1969. Comparison of the helminth fauna of California Gulls, *Larus californicus*, and Ring-billed Gulls, *Larus delawarensis*, at Beaverhill and Miquelon Lakes,

- Alberta. Canadian J. Zool., 47: 267-270.—A total of 148 gulls (57 adults, 91 chicks) were collected over a 2-year period and found to harbor essentially the same helminth fauna (approximately 10 species). Ring-billed Gulls were usually more heavily infested.—H.W.K.
- KHAN, R. A., S. S. DESSER, AND A. M. FALLIS. 1969. Survival of sporozoites of *Leucocytozoon* in birds for 11 days. Canadian J. Zool., 47: 347-350.—Sporozoites of *L. simondi* were recovered from duck livers that had received sporozoites up to 114 hours previously. Sporozoites of *L. dubreuilii* were found in Robin (*Turdus migratorius*) livers that had received them up to 11 days previously. The persistence of sporozoites for several days in blood would explain parasite transmission by subinoculations of blood before completion of an asexual cycle.—H.W.K.
- ROLAN, R. G., AND G. LEIDAHL. 1969. *Mayhewia nebraskensis*, sp. n., a cestode from the Rock Dove, *Columba livia*. Amer. Midl. Naturalist, 82: 598-600.—A new species of hymenolepidid cestode is described from the small intestine of Rock Doves taken in southeastern Nebraska.—G.D.S.

DISTRIBUTION AND ANNOTATED LISTS

- ARNOLD, K. A., AND T. C. MAXWELL. 1970. The Great Swallow-tailed Swift (*Panyptila sanctihieronymi*) from the state of Guerrero, México. Condor, 72: 108.
- ASH, J. S. 1969. Midwinter notes from Tenerite [Canary Islands]. Ibis, 111: 618-619.—Notes on 11 species. First records for *Charadrius squatarola*, *Tringa erythropus*, *Calidris temminckii*, and *C. alpina*, and remarks on the apparent decline of many species.—F.E.L.
- BACKHURST, G. C., AND P. L. BRITTON. 1969. A record of *Calidris subminuta* from Kenya. Bull. Brit. Ornithol. Club, 89: 121.—First Kenyan and second African record of this stint collected in April 1969 near Naivasha.—F.B.G.
- BANKS, R. C., AND C. G. HANSEN. 1970. Bird records from southern Nevada. Condor, 72: 109-110.
- BARLOW, J. C., J. A. DICK, D. H. BALDWIN, AND R. A. DAVIS. 1969. New records of birds from British Honduras. Ibis, 111: 398-402.—First specimens of *Gallinula chloropus cachinnans*, *Ereunetes mauri*, *Zenaida asiatica*, and *Chordeiles acutipennis mictomeris*. First breeding record of *Leptodon cayanensis* and *Molothrus a. aenus*.—F.E.L.
- BAUER, W., O. V. HELVERSEN, M. HODGE, AND J. MARTENS. 1969. A. Bermerkenswertes Brutnachweise aus Griechenland. J. Ornithol., 110: 79-83, and KRAUS, M., G. HOHLT, P. CONRADTY, AND E. BAUER. 1969. B. Zur Kenntnis der Vogelwelt Nordgriechenlands III. J. Ornithol., 110: 83-89.—Notes on the distribution of various species in Greece with suggestions for areas worthy of further investigation. (English summary.)—H.C.M.
- BERGER, A. J. 1970. The present status of the birds of Hawaii. Pacific Sci., 24: 29-42.—A fine summary with breeding information on some 44 endemic Hawaiian species. Account after account describes man's disastrous effects on the endemic avifauna, either through habitat destruction or depredations by introduced mammals. Forty per cent of the endemic forms are now extinct and 25 more are on the endangered list. Also listed is one apparent recent immigrant (*Nycticorax violacea*) and 22

- seabirds that nest within the chain. Migrants, stragglers, and introduced forms are not listed, but 76 game birds and at least 60 nongame birds are known to have been introduced.—J.J.D.
- BEZZEL, E. 1968. Einige grundsätzliche Bemerkungen zum Vorkommen seltener Limikolen im Binnenland. *Vogelwarte*, 24: 212–213.—Records of shorebirds seldom seen in interior Germany.—H.C.M.
- BRECKENRIDGE, W. J. 1968. Minnesota nesting of White Pelicans. *Loon*, 40: 100.—About 25 pairs nesting on an island in 1968 are first definite nesting since 1878.—R.W.N.
- BRITTON, P. L., AND J. F. HARPER. 1969. Some new distributional records for Kenya. *Bull. Brit. Ornithol. Club*, 89: 162–165.—Range extensions of ten species into the Nyanza Province of western Kenya. Many were known previously from ecologically similar areas of eastern Uganda but several, e.g. *Estrilda troglodytes troglodytes* and *Chloropeta gracilirostris gracilirostris*, represent considerable range extensions.—F.B.G.
- BROOKE, R. K. 1969. The Müller collection of birds from northern Portuguese East Africa. *Bull. Brit. Ornithol. Club*, 89: 145–151.—A list of specimens of 52 species obtained by H. C. Müller in Mozambique Province between 25 April and 2 November 1925 but not obtained by Col. Jack Vincent on an expedition in 1932.—F.B.G.
- BROWN, L. H. 1969. A first breeding record for the Southern Banded Snake Eagle *Circaetus fasciolatus* in Kenya. *Ibis*, 111: 390–391.—When first found, the nest contained a juvenile capable of poor flight, which was captured and described. On two revisits 5 months later, an adult was seen. Apparently this is the first breeding record for East Africa.—S.C.W.
- BUNDY, G., AND J. H. MORGAN. 1969. Notes on Tripolitanian birds. *Bull. Brit. Ornithol. Club*, 89: 139–144.—Summarizes observations of 235 species over a 3-year period near Tripoli, including 20 new records for this area. Greatest attention was given to migrants, which have been categorized in terms of relative abundance.—F.B.G.
- BUNDY, G., AND J. H. MORGAN. 1969. Notes on Tripolitanian birds. (Part 2). *Bull. Brit. Ornithol. Club*, 89: 151–159.—Notes on 122 of 235 species recorded during a 3-year period in northwest Libya (Tripolitania). Quantitative comparisons between spring and autumn are attempted for migrants. (From authors' summary.)—F.B.G.
- CARPENTER, M. L., W. B. JACKSON, AND M. W. FALL. 1968. Bird populations at Eniwetok Atoll. *Micronesica*, 4: 295–307.—An annotated list of resident and migrant sea and shorebirds with a discussion on the relationships of seabird breeding and vegetation. The account of Sooty Terns breeding nonannually is noteworthy.—B.A.H.
- CHAPMAN, S. E. 1969. The Pacific winter quarters of Sabine's Gull. *Ibis*, 111: 615–617.—Observations during nine voyages from Panama to central Chile and return from November 1963 to January 1969. Most records occur during August to April, peaking from December to February, and are confined to the Peru Current from just south of the Gulf of Guayaquil to the Peru-Chile border. The preferred wintering area is confined to cold water upwellings. Feeding *Xema sabini* may associate with *Chlidonias niger*, *Sterna spp.*, and *Larus pipixcan*.—F.E.L.

- COLLINS, C. T. 1969. A review of the shearwater records for Trinidad and Tobago, West Indies. *Ibis*, 111: 251-253.—Lists specimens of *Calonectris diomedea borealis* and *Puffinus p. puffinus*. *P. gravis*, previously based on skull not preserved, is considered problematic. The breeding population of *Puffinus lherminieri* is intermediate between the larger *lherminieri* of the Bahamas and northern Antilles and the smaller *loyemilleri* of Panama and the islands off Venezuela.—F.E.L.
- COOPER, J. K. 1969. First breeding record of the White-headed Woodpecker for Canada. *Canadian Field-Naturalist*, 83: 276-277.—A nest was found in 1967 close to the international border in British Columbia.—R.W.N.
- CUNNINGHAM-VAN SOMEREN, G. R. 1969. Escapes of *Psittacula krameri* and *Agapornis* spp. breeding in Kenya. *Bull. Brit. Ornithol. Club*, 89: 137-139.—A pair of *Psittacula krameri*, apparently derived from imported Indian birds rather than African races, were observed at a nesting hole in Nairobi National Park. *Agapornis personata* and *A. fisheri*, introduced from Tanzania, are now breeding in the residential areas of Nairobi and at Lake Naivashi respectively. Native populations of these two *Agapornis* occupy curiously restricted parts of the interior plateau of Tanzania.—F.B.G.
- DINSMORE, J. J., AND R. P. FRENCH. 1969. Birds of St. Giles Islands, Tobago. *Wilson Bull.*, 81: 460-463.
- EDGAR, A. T. 1969. Common Sandpiper in Northland. *Notornis*, 16: 202-203.—Second New Zealand sight record of *Tringa hypoleucos*.—G.D.S.
- ESCALANTE, R. 1970. Notes on the Cayenne Tern in Uruguay. *Condor*, 72: 89-94.
- FAHLANDER, B. 1969. [First record of the Dusky Warbler *Phylloscopus f. fuscatu*s in Sweden. Report No. 50 Ottenby Bird Station.] *Vår Fågelvärld*, 28: 249-251.—A young female was collected on 16 October 1968.—L.DEK.L.
- FRIEDMANN, H., AND J. G. WILLIAMS. 1969. The birds of the Sango Bay forests, Buddu County, Masaka District, Uganda. *Los Angeles Co. Mus. Contrib. Sci.*, No. 162, 48 pp.—The first comprehensive study of the bird life of this area is based on a Los Angeles Co. Mus. Nat. Hist. collection of 760 specimens of 138 species made in 1968 in the Malabigambo and Namalala forests. Numerous range extensions are noted, and a few species show indications of incipient microevolutionary variational trends.—H.H.
- GIBB, J. A., AND G. M. DUNNET. 1969. Swift on Motunau Island. *Notornis*, 16: 204-205.—Sight record from a New Zealand island, probably of *Apus apus*.—G.D.S.
- GODFREY, W. E. 1969. The Golden-winged Warbler in Muskoka County, Ontario. *Canadian Field-Naturalist*, 83: 281.—*Vermivora chrysoptera* has expanded its range some 150 miles northward during the present century and is continuing as shown by observations in 1967.—R.W.N.
- GREEN, J. C. 1969. Northern owl invasion winter, 1968-1969. *Loon*, 41: 36-39.—Documentation of Great Gray Owl records in Minnesota; for the first time this species had been reported in numbers south of the coniferous forests of the northern half of the state.—R.W.N.
- GRIMES, L. 1969. The Spotted Redshank *Tringa erythropus* in Ghana. *Ibis*, 111: 246-251.—Large concentrations on coastal salt pans during fall and spring migration and few inland records suggest a coastal migration.—F.E.L.

- HAND, R. L. 1970. House Finches (*Carpodacus mexicanus*) in Montana. Condor, 72: 115-116.
- HARRIS, S. W., AND R. H. GERSTENBERG. 1970. Common Teal and Tufted Duck in northwestern California. Condor, 72: 108.
- HAVERSCHMIDT, F. 1969. A Streaked Flycatcher at sea. Bull. Brit. Ornithol. Club, 89: 166.—Reports early migrant *Myiodynastes maculatus solitarius* at sea between Guyana and Trinidad.—F.B.G.
- HAVERSCHMIDT, F. 1969. The Zenaida Dove on Barbados. Ibis, 111: 613.—*Zenaida aurita* in urban Bridgetown feeds on waste grain on docks.—F.E.L.
- IRVING, L., C. P. McROY, AND J. J. BURNS. 1970. Birds observed during a cruise in the ice-covered Bering Sea in March 1968. Condor, 72: 110-112.
- KARLSSON, L. 1969. [First record of Cretzschmar's Bunting *Emberiza caesia* in Sweden. Report No. 49 Ottenby Bird Station.] Vår Fågelvärld, 28: 252.—Adult male photographed 29 May 1967.—L.DEK.L.
- KAZAMA, T. 1968. Notes on the birds of Kashiwazaki, Niigata Prefecture. Misc. Repts. Yamashina Inst. Ornithol., 5: 370-396.—Results of 10 years of observation and banding on the Japan Sea coast of Honshu, includes records of a number of birds rare or accidental in Japan. The area seems especially favorable for beach-drifted records of northern alcids. A number of passerines occur in especially heavy migrating or wintering concentrations. *Otus scops*, previously thought to be resident, is shown to be migratory. *Cyanopica cyana* became established as a breeding species in 1965 and is increasing. (In Japanese; short English summary.)—K.C.P.
- KEVE, A. 1969. Das Vogelleben der mittleren Donau. Studia Biol. Acad. Sci. Hungary, 7: 128 pp. \$4.80.—A faunistic monograph of the middle course of the river Danube, which transects Hungary. The first part describes the different habitats with their breeding, transient, and wintering birds. The second, shorter part of the study enumerates the list of various food items of potamic birds, grouped and annotated. Further ecological relationships are presented and discussed, viz. the river as a drinking, bathing, and roosting place and the applied, agricultural, and conservational importance of the river and its birds. The decrease in numbers of potamic and riparian birds is emphasized. Banding recoveries of water and wetland birds point toward the importance of the riverside habitats as postbreeding and transient stations for many birds of other Danube valley habitats and from afar.—M.D.F.U.
- KEVE, A., AND I. STERBETZ. 1968. Zugverschiebung beim Grossen Brachvogel (*Neminius arquata*) in Ungarn. Vogelwarte, 24: 198-200.—*N. a. orientalis*, an eastern race of the Curlew, did not occur in Hungary in the 1930s. It has occurred progressively more frequently in recent years until it is now more common than the nominate form, suggesting a westward shift in migration routes. (English summary.)—H.C.M.
- KUMERLOEVE, H. 1969. On the occurrence of the Pied Wheatear *Oenanthe leucomela* in Asia Minor and adjacent countries. Ibis, 111: 238-239.
- KUMERLOEVE, H. 1969. The Dead Sea Sparrow: A second breeding-place on Turkish and the first-known breeding-place on Syrian territory. Ibis, 111: 617-618.—*Passer*

- moabiticus* nesting on the Turkish-Syrian border in dense willow bushes along the Chabour river 180 km east of Birecik (the first Turkish location).—F.E.L.
- LAPERLE, M. 1969. Breeding records of the Ring-necked Duck in Gaspé South County, Quebec. *Canadian Field-Naturalist*, 83: 280-281.
- LATHBURY, SIR G. 1970. A review of the birds of Gibraltar and its surrounding waters. *Ibis*, 112: 25-43.—Annotated list of 198 species, including 118 passage migrants and 36 winter visitors, based on observations from 1965 to 1968 and literature summary. Describes climate and topography and relates migration of soaring birds and passerines to weather conditions.—F.E.L.
- MISHIMA, T. 1968. [Some additional records to the 4th edition of "the Hand-list of the Japanese Birds."] Misc. Repts. Yamashina Inst. Ornithol., 5: 397-405.—Distributional and breeding records based on specimen or photographic evidence for 69 species, supplemental to the 1958 edition of the Japanese handlist. Recognition of *Passer montanus kaibatoi* and *taivanensis*, currently synonymized with *P. m. saturatus*, is recommended. Iriomote Island should be deleted from the published ranges of *Rallina eurizonoides sepiaria* and *Gallinula cinerea*. (In Japanese; short English summary.)—K.C.P.
- MOREAU, R. E. 1969. Ducks over the eastern Sahara. *Ibis*, 111: 405.—Eleven species of diving and dabbling ducks at oases in central Egypt.—F.E.L.
- MULLER, P. 1969. Wind and waders/Southland, January, 1969. *Notornis*, 16: 126-138.—Annotated list of 66 species observed.—G.D.S.
- MUMFORD, R. E., AND L. E. LEHMAN. 1969. Glossy Ibis taken in Indiana. *Wilson Bull.*, 81: 463-464.
- NARVER, D. W. 1970. Birds of the Chignik River drainage, Alaska. *Condor*, 72: 102-105.
- NERO, R. W. 1969. The status of the Great Gray Owl in Manitoba, with special reference to the 1968-69 influx. *Blue Jay*, 27: 191-209.—An estimated 100 owls, apparently the largest influx ever recorded, appeared in extreme southeastern Manitoba during the winter of 1968-69. Most of the records for Manitoba for the previous 50 years are for this same area, which is believed to be outside the nesting range of the species. Notable photographs by Robert R. Taylor are included.—R.W.N.
- OZAWA, K. 1968. Two records of Wilson's Storm-petrel (*Oceanites oceanicus*) in Japanese waters in 1967. Misc. Repts. Yamashina Inst. Ornithol., 5: 411-413.—Single Wilson's Petrels were picked up aboard ships off Honshu on 11 July and 2 November 1967. Only one previous record exists for Japanese waters, and few from elsewhere in the northern Pacific. (In English; Japanese summary.)—K.C.P.
- PARSONS, B. T. 1969. A record of *Oceanodroma leucorhoa* from Kenya. *Bull. Brit. Ornithol. Club*, 89: 120-121.—A specimen found on the beach in southeastern Kenya is the first record of Leach's Petrel from Kenya and tropical East Africa.—F.B.G.
- PRICE, L. W. 1969. Nesting of the Long-tailed Jaeger in southwest Yukon Territory—an extension of the known breeding grounds. *Canadian Field-Naturalist*, 83: 138-141.—A pair nested in 1967 and 1968, and others were observed, in alpine tundra 270 miles south of the nearest known range. Small rodents and insectivores provided a food source.—R.W.N.

- SANDS, J. L. 1970. First record of the Black Brant (*Branta nigricans*) for New Mexico. *Condor*, 72: 110.
- SCHWILLING, M. D. 1969. Ross Goose taken in Kansas. *Kansas Ornithol. Soc. Bull.*, 20: 27.—First Kansas specimen of *Chen rossii*, an immature, taken in Brown County 18 October 1969.—M.A.J.
- SCHWILLING, M. D., AND E. MARTINEZ. 1969. Cinnamon Teal brood at Cheyenne Bottoms. *Kansas Ornithol. Soc. Bull.*, 20: 27.—A pair of *Anas cyanoptera* with seven downy young (1-2 weeks old) on 13 June 1969 in Barton County. One young was taken as the first documentation of the species' breeding in Kansas.—M.A.J.
- SICK, H. 1968. Vogelwanderungen im kontinentalen Südamerika. *Vogelwarte*, 24: 217-243.—A concise review of what (relatively little) is known about the migrations of birds in South America, including both intracontinental migrants and the winter visitors from North America. This paper is by far the best source for such information. (English summary.)—H.C.M.
- STERBETZ, I., AND J. SZIJJ. 1968. Das Zugverhalten der Rothalsgans (*Branta ruficollis*) in Europa. *Vogelwarte*, 24: 266-277.—Hypothesizes that the recent increase in the incidence of Red-breasted Geese in Western Europe may be caused by recruitment of other individuals by birds that straggled westward in previous years. (English summary.)—H.C.M.
- STIRLING, I., AND P. M. JOHNS. 1969. Notes on the bird fauna of Open Bay Islands. *Notornis*, 16: 121-135.—Records of 16 species on three visits in 1968 and 1969.—G.D.S.
- STONEHOUSE, B. 1969. Emperor Penguins *Aptenodytes forsteri* at Franklin Island, Ross Sea, Antarctica. *Ibis*, 111: 627-628.
- THOMPSON, M. C., AND W. CHAMPENY. 1969. Records of the Rufous Hummingbird for Kansas. *Kansas Ornithol. Soc. Bull.*, 20: 25-26—Five sight records of *Selasphorus rufus* for Sumner County in south-central Kansas, all late summer, 1964-1969.—M.A.J.
- TOVAR S., H., AND N. P. ASHMOLE. 1970. A breeding record for the Gray-hooded Gull, *Larus cirrocephalus*, on the Peruvian coast. *Condor*, 72: 119-122.
- TRAMONTANO, J. P. 1970. Winter observations of the Short-tailed Albatross in the western Pacific Ocean. *Condor*, 72: 122.
- URBAN, E. K., AND J. BOSWALL. 1969. Bird observations from the Dahlak Archipelago, Ethiopia. *Bull. Brit. Ornithol. Club*, 89: 121-129.—Annotated list of 56 species observed between 18 and 25 March 1969.—F.B.G.
- VICENTE, R. O. 1969. A new introduced species in Europe. The Red-eared Waxbill. *Ibis*, 111: 614.—About 100 *Estrilda troglodytes*, first observed during August 1964 at a lagoon 100 km north of Lisbon, Portugal, have increased to about a 1,000 in 5.5 years. During 1965 and 1966 nests and juveniles were found. The birds frequented reedbeds and water courses of marsh areas. Although most sightings have been confined to the vicinity of the original location, in 1967 and 1968 a few individuals were seen 60 and 70 km south.—F.E.L.
- VUILLEUMIER, F. 1969. Field notes on some birds from the Bolivian Andes. *Ibis*, 111: 599-608.—Includes 14 rare or little known species, with ecology and distribution described for most and nests described for *Lapsthenura yamacensis* (Furnari-

- idae), *Schizoeaca harterti* (Furnariidae), *Ampelion rubrocristatus* (Cotingidae), and *Phrygilus plebejus* (Fringillidae). Some interesting notes are a flight display by *Gallinago stricklandii* (Cordilleran Snipe), *Chalcostigma olivaceum* (Trochilidae) feeding on insects by walking on ground, and three furnariids breeding with incompletely ossified skulls.—C.F.S.
- WARHAM, J. 1969. Notes on some Macquarie Island birds. *Notornis*, 16: 190–197.—Observations from 29 December 1959 to 12 March 1961. Reports 3 new species for the island, also 4 rare, 5 common, and 2 introduced.—G.D.S.
- WARNER, D. W., AND D. A. BEIMBORN. 1969. First Caspian Tern nesting in Minnesota. *Loon*, 41: 83–84.
- WHITE, C. M., AND J. R. HAUGH. 1969. Recent data on summer birds of the upper Yukon River, Alaska and adjacent part of the Yukon Territory, Canada. *Canadian Field-Naturalist*, 83: 257–271.—Annotated list of 92 species encountered in 1966 and 1968, of which 71 apparently were breeding. Includes a tabulated distribution and population analysis, based on a comparison with earlier records.—R.W.N.
- WHITFIELD, D. W. A., D. W. DAVIS, J. M. GERRARD, AND W. J. MAHER. 1969. Golden Eagles in central Saskatchewan. *Blue Jay*, 27: 74–79.—Five active nests were found in 1968 on cliff ledges in the Churchill River area, these being the first known nests for the north-south area of 540 miles extent between recorded nest sites in extreme northern and southern Saskatchewan. Snowshoe rabbits were a primary food source.—R.W.N.

ECOLOGY AND POPULATION

- BEDARD, J. 1969. Feeding of the Least, Crested, and Parakeet Auklets around St. Lawrence, Alaska. *Canadian J. Zool.*, 47: 1025–1050.—Three plankton-feeding alacids, *Aethia pusilla*, *A. cristatella*, and *Cyclorhynchus psittacula*, are largely sympatric and share common nesting grounds and food resources in the pelagic neritic zone. The Least and Crested Auklets have a diversified diet, but restrict themselves largely to one principal prey during the chick-rearing period. Hatching coincided closely with the appearance of these prey items. Segregation in feeding between Least and Crested Auklets is achieved by differences in bill size, between Crested and Parakeet Auklets by differences in foraging habits and prey preferences.—H.W.K.
- BOCK, C. E. 1969. Intra—vs. interspecific aggression in Pygmy Nuthatch flocks. *Ecology*, 50: 903–905.—A study of interactions in the wild and at feeding stations among Pygmy Nuthatches, White-breasted Nuthatches, and Mountain Chickadees traveling in mixed flocks in winter in Colorado. Results indicate incomplete niche overlap exists. Pygmy Nuthatches ultimately excluded the other two species from the feeders.—H.W.K.
- BOCK, C. E., AND J. F. LYNCH. 1970. Breeding bird populations of burned and unburned conifer forest in the Sierra Nevada. *Condor*, 72: 182–189.
- BODLE, J. E. 1969. Mortality of Common Murres along the Northern California coast. *California Fish and Game*, 55: 329–331.—Causes unknown.—R.W.S.
- BROWN, L. H. 1969. Status and breeding success of Golden Eagles in north-west Sutherland in 1967. *Brit. Birds*, 62: 345–363.—Territories of 18 pairs averaged 11,560 acres; no evidence of a population decline since 1958–60.—H.B.

- CAMERON, R. A. D. 1969. Predation by Song Thrushes *Turdus ericetorum* on the snails *Cepaea hortensis* and *Arranta arbustorum* near Rickmansworth. J. Anim. Ecol., 38: 547-553.—Song Thrushes feed on both species, in January-February predominantly *Arranta* and in June-July predominantly *Cepaea*.—H.W.K.
- CODY, M. L., AND J. H. BROWN. 1969. Song asynchrony in neighboring bird species. Nature, 222: 778-780.—Bewick's Wrens (*Thryomanes bewickii*) and Wrentits (*Chamaea fuscata*), the two commonest species in an area of California chaparral, sang largely out of phase with each other.—K.P.A.
- COLLIAS, N. E., AND E. C. COLLIAS. 1969. Size of breeding colony related to attraction of mates in a tropical passerine bird. Ecology, 50: 481-488.—Field observations were conducted in 1967 in northwest Senegal on 18 colonies of the Village Weaverbird, *Ploceus (Textor) cucullatus*. Factors studied included distribution, size, and growth of colonies, and attraction of females to colonies of different sizes. Throughout the breeding season small colonies contained fewer resident females per male than did large colonies. The evolution of gregarious breeding in this species in part may be caused by increased efficiency of attracting mates that results from colony life.—H.W.K.
- CONDEE, R. W. 1970. The winter territories of Tufted Titmice. Wilson Bull., 82: 177-183.
- DOBROWOLSKI, K. A. 1969. Structure of the occurrence of waterfowl types and morpho-ecological forms. Ekologia Polska, Ser. A, 17, No. 2: 29-72. Inst. Zool. Univ. Warsaw.—The ecological structure of the waterfowl inhabiting Mamry Lake in Poland.—E.E.
- DOW, D. D. 1969. Habitat utilization by Cardinals in central and peripheral breeding populations. Canadian J. Zool., 47: 409-417.—Color-banded *Richmondia cardinalis* were studied in a dense population (0.74 males per h) in Tennessee and in a sparse population (0.012 males per h) in Ontario. Ontario birds showed higher discrimination in foraging sites and preferred nonconifers for song perches and feeding, but all nests were in conifers. Males prefer high song perches, but height seemed less important than conspicuousness. A plastic response to habitat has contributed to the Cardinals range expansion.—H.W.K.
- DOW, D. D. 1970. Indexing population densities of the Cardinal with tape-recorded song. Wilson Bull., 82: 83-91.
- ERIKSSON, K. 1969. On the occurrence of the Grasshopper Warbler (*Locustella naevia*) and River Warbler (*L. fluviatilis*) in Finland related to bird watching activity. Ornis Fennica, 46: 113-124.—The Grasshopper Warbler is a rare breeder, and the River Warbler a rare summer visitant to Finland. Based on frequency of observations, several authors claim these species became more common during the 1950s and 1960s. A statistical analysis of the increase in the number of participants at meetings of an ornithological society, and of bird banders is compared with the regression lines of the increase of reports on the two species with the conclusions that the number of Grasshopper Warbler records has increased less than expected, indicating that the species, in fact, is gradually decreasing, and that River Warbler populations also are not increasing, but may be stable.—M.D.F.U.
- FICKEN, M. S., AND R. W. FICKEN. 1968. Ecology of Blue-winged Warblers, Golden-winged Warblers and some other *Vermivora*. Amer. Midl. Naturalist, 79: 311-319.

- Vermivora pinus* and *V. chrysoptera* breed in the same habitats in a study area in central New York, although *V. pinus* tended to be found in wetter areas over a 3-year period. In 1966 when *V. chrysoptera* was no longer present, *V. pinus* occupied the drier areas as well. The authors conclude that the two species have similar ecological requirements, are in competition, and cannot coexist indefinitely.—G.D.S.
- FISHER, H. I., AND M. L. FISHER. 1969. The visits of Laysan Albatrosses to the breeding colony. *Micronesica*, 5: 173–221.—A detailed analysis of movements on and off Midway Atoll, North Pacific Ocean, based on more than 25,000 recaptures of banded birds of all ages.—R.W.S.
- GANNING, B., AND F. WULFF. 1969. The effects of bird droppings on chemical and biological dynamics in brackish water rockpools. *Oikos*, 20: 274–286.—Patterns of biochemical cycling of nutrients in rockpools near a colony of *Larus canus*, *L. argentatus*, and *Somateria mollissima* on Vrångskär, an island off Sweden in the Baltic Sea.—H.W.K.
- GEORGE, U. 1969. Über das Tränken der Jungen und andere Lebensäußerungen des Senegal-Flughuhns, *Pterocles senegallus*, in Marokko. *J. Ornithol.*, 110: 181–191.—Three years of observations of the movements, breeding, watering and water transport, and other behaviors of the Senegal Sandgrouse. (English summary.)—H.C.M.
- HAMILTON, W. J., III, AND W. M. GILBERT. 1969. Starling dispersal from a winter roost. *Ecology*, 50: 886–898.—Further elaboration of the authors' hypothesis (Hamilton et al., *Ecology*, 48: 825–833, 1967) that Starlings dispersing from roosts behave to maximize the efficiency and rate of energy gain. They do this by making in-transit stops to feed. If food resources are favorable they stay to feed, if not they move on. At maximum roost populations individuals may disperse daily as much as 50 miles.—H.W.K.
- HARRIS, M. P. 1969. Breeding seasons of sea-birds in the Galapagos Islands. *J. Zool.*, 159: 145–165.—Diverse breeding cycles range from rigidly annual to essentially continuous with individuals breeding more than once per year. Controlling factors are obscure. Annual breeders may be out of phase on different islands.—A.S.G.
- HILDÉN, O. 1969. The occurrence and breeding of the Redpoll (*Carduelis flammea*) in northern Lapland in 1968. *Ornis Fennica*, 46: 93–112.—Nest site, building, laying, clutch size, incubation, and nesting success of 225 nests. Some important population ecological inferences are drawn. Recent detailed observations reveal the Redpoll's well-known nomadism is an adaptive phenomenon for utilizing the periodic superabundance of food so characteristic of subarctic habitats. In southern Finland, 1968 was a rich spruce seed year and Redpoll breeding was widespread (and correlated with the seed supply) in April and May. In June the birds disappeared, and some were seen migrating northward in flocks. The birch forest and dwarf-birch belts of northern Lapland were invaded by Redpolls in June, and the birds began nesting. The 0.37 sq km study area had a nesting density of 103 pairs per sq km. The clutch size of the Redpoll in southern Finland is significantly smaller ($M = 4.53$, $n = 45$) than in Lapland ($M = 5.18$, $n = 137$), perhaps reflecting feeding conditions. Author subscribes to the earlier presented hypothesis (Swanberg, 1936, and Peiponen, 1957–67) that the Redpoll breeds twice in favorable years, but in two geographically different areas, first farther south, then near the subarctic tree line. (In German; English and Finnish summary.)—M.D.F.U.

- JABLONSKI, B. 1969. [The problem of light penetration to birds' nests, using species of the genus *Phylloscopus* Boie as examples.] Ecol. Polska, Ser. B., 15: 45-53.—Three congeneric and sympatric species of leaf warblers use different parts of the canopy for feeding and nest under different light exposure, which now has been shown to correlate with the light intensities at the time and stratum of their feeding. A simple, homemade apparatus built around a light meter (illustrated but described only in the Polish text) was used to obtain data from over 450 nests of the three species. (In Polish; English summary.)—M.D.F.U.
- JENKINS, R. E. 1970. Food habits of wintering Sparrow Hawks in Costa Rica. Wilson Bull., 82: 97-98.
- JENNI, D. A. 1969. A study of the ecology of four species of herons during the breeding season at Lake Alice, Alachua County, Florida. Ecol. Monogr., 39: 245-270.—Winter status, spring arrival, onset of breeding, nest site selection, nest construction, egg laying, clutch size, incubation, hatching, care of young, mortality of eggs and young, food and feeding behavior of adults and nestlings for the Snowy Egret, Louisiana Heron, Little Blue Heron, and Cattle Egret.—H.W.K.
- JOHNSTON, D. W. 1970. High density of birds breeding in a modified deciduous forest. Wilson Bull., 82: 79-82.
- KÖNIG, C. 1969. Sechsjährige Untersuchungen an einer Population des Raufusskauzes, *Aegolius funereus* (L.). J. Ornithol., 110: 133-147.—A 6-year study of the population of Tengmalm's Owl in an area of 10,000 h in the Swabian Alps. Average clutch size was 5.7 eggs with 4 young fledged in vole years and 2.7 eggs and 2.3 young fledged in years of vole and mouse scarcity. The entrance to a nest containing an incubating owl was blocked with mud deposited by a nuthatch! (English summary.)—H.C.M.
- MACARTHUR, R. H., AND H. S. HORN. 1969. Foliage profile by vertical measurements. Ecology, 50: 802-804.—Although not an ornithological paper, the technique described herein is used in avian species diversity studies for estimating foliage profiles in a forest by a combination of measurements over random lines of points. It (1) counts leaf contacts on a plumb line below a tripod, (2) uses sightings on the heights of lowest leaves over grids of points, and (3) estimates the proportions of sky unobscured by leaves.—H.W.K.
- MAHER, W. J. 1970. The Pomarine Jaeger as a brown lemming predator in northern Alaska. Wilson Bull., 82: 130-157.
- MIKKOLA, H., AND S. SULKAVA. 1969. On the occurrence of the Great Grey Owl (*Strix nebulosa*) in Finland 1955-68. Ornis Fennica, 46: 126-131.—Great Grey Owls were numerous in northern Finland in the 1930s, but no nests were found throughout Finland from 1942 to 1954. A few nests were found in the late 1950s with increases occurring until 1966 and 1967 when they were abundant. Some population increases coincided with *Microtus* peaks whereas others may have been caused by emigration from the Russian taiga in poor vole years. Most of the population probably is nomadic.—M.D.F.U.
- MURPHY, J. R., F. J. CAMENZIND, D. G. SMITH, AND J. B. WESTON. 1969. Nesting ecology of raptorial birds in central Utah. Brigham Young Univ. Sci. Bull., Biol. Ser., 10: 1-36. Ecology and behavior of the Golden Eagle, Great Horned Owl, and Ferruginous Hawk.—R.W.S.

- NORTH, C. A. 1969. Preliminary report on House Sparrow reproductivity and population fluctuations in Coldspring, Wisconsin, 1969. Intern. Studies on Sparrows, 3: 43-66.—First reproductive season for a study area saturated with breeding boxes.—M.D.F.U.
- OELKE, H. 1969. Die Brankgans (*Tadorna tadorna*) im Mauseggebiet Grosser Knechtsand. J. Ornithol., 110: 170-175.—About 70,000 to 100,000 molting shelducks congregate in the Elbe-Weser estuary in late July and August. Presents detailed analysis of arrivals, daily movements, and other behaviors in relation to weather, tides, and other variables. (English summary.)—H.C.M.
- OLIVER, W. W. 1970. The feeding pattern of sapsuckers on ponderosa pine in north-eastern California. Condor, 72: 241.
- ORIAN, G. H. 1969. The number of bird species in some tropical forests. Ecology, 50: 783-801.—The author warns that this study is strictly preliminary, but it is a must reading for everyone who has been converted or confounded by the MacArthur school of species diversity studies. Seven plots in Costa Rica ranging from 0 to 6 months dry season and from sea level to 2,380 m elevation were censused. The number of bird species recorded was not measureably affected by the tree species diversity or length of dry season. In addition to assessing the importance for bird distribution of features of the habitat, the foraging behavior of the birds also was studied. The author concludes, "It is sufficient for the present to note that it is dangerous to generalize too much about 'the tropics'." Amen.—H.W.K.
- ORIAN, G. H., AND H. S. HORN. 1969. Overlap in foods and foraging of four species of blackbirds. Ecology, 50: 930-938.—A study of foraging behavior and foods of the Brewer's, Red-winged, and Yellow-headed Blackbirds and the Western Meadowlark in the potholes of central Washington. Overall food overlap for the three former species is high for all periods of the day, but habitat overlaps varied. Total overlap values are similar to the theoretical maximum values derived from competition theory. An appendix provides details for the overlap indices.—H.W.K.
- PORTER, W. P., AND D. M. GATES. 1969. Thermodynamic equilibria of animals with environment. Ecol. Monogr., 39: 227-244.—Environmental factors (sunlight, skylight, reflected light, thermal radiation, air temperature, air movement, and water vapor pressure of air) and animal properties (metabolic rate, moisture loss rate, conductance of fat, fur, or feathers, absorptivity to radiation, body size, shape, and orientation) that affect the exchange of energy between an organism and the environment. Derives a mathematical model for the energy budgets of animals based on simple concentric cylinder approximations to body geometry. The 3-dimensional space of radiation absorbed, wind speed, and air temperatures is referred to as the climate space that the animal must occupy in order to survive. Climate spaces for a lizard, five mammals, and two birds (Zebra Finch, Cardinal) are derived. A section on wind tunnel experiments is appended.—H.W.K.
- REESE, J. 1969. A Maryland Osprey population 75 years ago and today. Maryland Birdlife, 25: 116-119.—Distribution and size of the breeding population and average clutch (2.3) in 1966-68 are nearly identical to those in 1892, but most nests now are on offshore structures instead of trees.—H.B.
- ROBEL, R. J. 1969. Movements and flock stratification within a population of Blackcocks in Scotland. J. Anim. Ecol., 38: 755-763.—A study of the home range and

- mobility of *Lyrurus tetrrix* at different times of year by radio tracking showed that no changes occur during autumn and winter, but that flock stability is weakest during these seasons, and that the population becomes stratified in the spring into a stable, conspicuous, less mobile, lekking flock and a less cohesive, inconspicuous, and mobile nonlekking flock.—H.W.K.
- ROYAMA, T. 1969. A model for the global variation of clutch size in birds. *Oikos*, 20: 562-567.—Recent evidence showing that energy requirements of *Parus major* nestlings are not independent of the area, the season, or the brood size suggests a model may be used to explain global variation in clutch size in general. Using the Robin *Erithacus rubecula* as an example and the King-Farner equation and the Ivlev predation equation, a theoretical relationship is derived between brood size and the abundance of food, the available time for hunting (=hunting efficiency), and air temperature. A stimulating and important contribution.—H.W.K.
- SAMMALISTO, L. 1968. Hybridization of two extreme races of a widespread bird species, the Grey-headed Wagtail, *Motacilla flava* L. *Travaux Mus. Hist. Nat. Grigore Antipa*, 9: 529-547.—Head, supercilium, and chin-throat color, and length of hind claw are the characters that identify subspecific or intergrade populations in this widespread and variable species. Variation was studied in specimens from transects in the Mediterranean region. There are hybrid belts, zones where hybridization apparently did not succeed, others where former hybrid populations have been swamped by the parental subspecies, and others where mixed populations were found interspersed. The underlying ecologic conditions are not known. As the morphologic systems in *M. flava* populations seem to be highly dynamic, the author suggests that subspecific names be applied only to the following populations (geographic distribution described): *feldegg*, *flava*, *cinereocapilla*, and *iberiae*. As the paper has no section on methods nor acknowledgements of sources or collections studied, it is not clear where the specimens came from, from what time period, and who measured them. All data are presented in bare tabulated form giving only the number of specimens measured.—M.D.F.U.
- SHARP, B. 1970. A population estimate of the Dusky Seaside Sparrow. *Wilson Bull.*, 82: 158-166.
- SIBLEY, F. C., R. D. MALLETT, J. C. BORNEMAN, AND R. S. DALEN. 1969. California Condor Surveys, 1968. *California Fish and Game*, 55: 298-306.—No major changes noted in the Condor population.—R.W.S.
- SNELL, M. L. 1969. Notes on the breeding of the Blue Swallow. *Ostrich*, 40: 65-74.—*Hirundo atrocaerulea* normally nests only in underground holes with an overhanging roof and a clear approach. The nests are widely spaced, about $\frac{1}{2}$ mile apart. The scarcity of sites and their wide spacing has kept this an uncommon species, but its recent use of human habitations provides the possibility of a rapid population increase.—M.A.T.
- SOUTHWOOD, T. R. E., AND D. J. CROSS. 1969. The ecology of the Partridge, 3. Breeding success and the abundance of insects in natural habitats. *J. Anim. Ecol.*, 38: 497-509.—The final paper of a study on the ecology of a *Perdix perdix* L. population. Described are studies of the gross biomass of arthropods available to chicks in different habitats in June, and the relationship between the breeding success of the partridge and general insect abundance, as measured by suction traps. Two factors are chiefly responsible for the decline in Partridge numbers in Britain: (1) modern

agricultural practices involving removal of hedgerows and rough grass strips and the working of large blocks of several fields, and (2) herbicide treatment of cereal crops which renders them a relatively poor source of food for the chicks.—H.W.K.

TERBORGH, J., AND J. M. DIAMOND. 1970. Niche overlap in feeding assemblages of New Guinea birds. *Wilson Bull.*, 82: 29–52.

TERBORGH, J., AND J. S. WESKE. 1969. Colonization of secondary habitats by Peruvian birds. *Ecology*, 50: 765–782.—Surveys (using mist nets and observations) of 4- to 10-acre study plots in two primary habitats (forest and matorral) and four secondary habitats (two coffee plantations, a cacao plantation, and an abandoned field) in the Apurimac Valley of Peru revealed 221 species of land birds. Species diversity, according to the Shannon-Wiener formula, showed little variation from one habitat to another. Mist nets caught fewer than half of the species present, probably because many tropical species confine their foraging activities to narrow vertical zones in the vegetational column. The number of species in the four secondary habitats was lower than in primary habitats having similar foliage height profiles. It is hypothesized that this is caused by the isolation of tracts of secondary habitat from primary vegetation and certain qualitative aspects of habitat that are not adequately expressed by the foliage height diversity index.—H.W.K.

TRAMER, E. J. 1969. Bird species diversity, components of Shannon's formula. *Ecology*, 50: 927–929.—Presents evidence showing that in breeding bird populations diversity patterns are strongly correlated with variation in the species richness component, the relative abundance component being relatively stable. This is shown to be a result of relatively stable physical environment and resources. On the other hand, diversity patterns in phytoplankton populations are correlated with variations in species relative abundance while species richness remains stable. An interesting theoretical discussion.—H.W.K.

EVOLUTION AND GENETICS

BARLOW, J. C., R. D. JAMES, AND N. WILLIAMS. 1970. Habitat co-occupancy among some vireos of the subgenus *Vireo* (Aves: Vireonidae). *Canadian J. Zool.*, 48: 395–398.—Habitat co-occupancy is reported for the first time between *V. vicinior* and *V. belli arizonae* and *V. vicinior* and *V. solitarius* in central and northern Arizona. Behavioral and vocal differences facilitate the association between *vicinior* and *belli*, but only behavioral differences appear to be used by *vicinior* and *solitarius*. (From authors' abstract.)—H.W.K.

BOEHM, L. G., AND M. R. IRWIN. 1970. Genetic polymorphism of esterase 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.—Plasma esterase of *Streptopelia senegalensis* (n = 69) had nine phenotypes. Only a single phenotype was observed in *S. risoria* (n = 59). Preliminary genetic studies indicate the presence of 9 alleles in *senegalensis*. Other species of *Streptopelia* also were polymorphic at the esterase locus. Multiple allelic series are presumed to account for the polymorphism, but no direct data on dominance order are available.—A.H.B.

CAUGLEY, G. 1969. Genetics of melanism in the fantail *Rhipidura fuliginosa*. *Notornis*, 16: 237–240.—Based on count and crossing data, author concludes that melanism in the South Island Fantail is controlled by a single, dominant gene. Supposedly it is held at equilibrium by heterosis and panmictic mating at a frequency of 7 per

- cent, thus holding the frequency of melanics at 13 per cent. Previous interpretations of the crossing data are rejected.—G.D.S.
- COLE, G. A. 1969. Plumage colors and patterns in the feral rock pigeons of central Arizona. *Amer. Midl. Naturalist*, 82: 613-618.—Color and pattern frequencies in *Columba livia* in Tempe, Arizona remained remarkably constant for at least 5 years.—G.D.S.
- GRANT, P. R. 1969. Community diversity and the coexistence of congeners. *Amer. Naturalist*, 103: 552-556.—Using data from an earlier paper by Grant, Greenwood (*Amer. Naturalist*, 102: 591-592, 1968) concluded that the probability of coexistence of congeners on islands does not differ appreciably from that on the mainland. Greenwood derived the expected proportion for the islands using the logarithmic series. Grant points out data that cast serious doubt on the applicability of this method and suggests a more fruitful approach to the question of coexistence lies in the consideration of the ecological differences between sympatric congeners on islands and mainland.—G.D.S.
- JABLONSKI, B. 1968. Isolation and competition among species of the genus *Parus* L. *Ekol. Polska, Ser. B.*, 14: 127-140.—Ecological segregation of six species of congeneric titmice. Feeding overlap is minimized by structural and behavioral differences, seasonal habitat utilization, and biotic community preference despite interdigitation of deciduous and coniferous habitats. Active competition may reinforce these differences in habitat utilization in the commonly utilized sectors of the habitat; a homeostatic control is hypothesized that would activate the competitive functions when their accumulated effect reached a certain threshold. (In Polish; English summary.)—M.D.F.U.
- LYNCH, J. F., AND P. L. AMES. 1970. A new hybrid hummingbird, *Archilochus alexandri* × *Selasphorus sasin*. *Condor*, 72: 209-212.
- ORIAN, G. H. 1969. On the evolution of mating systems in birds and mammals. *Amer. Naturalist*, 103: 589-603.—Predictions of mating patterns are made from a theory assuming mate selection by the female that maximizes reproductive success of individuals. These predictions, which agree closely with known mating patterns, are: (1) polyandry should be rare, (2) polygyny should be more common among mammals than among birds, (3) polygyny should be more prevalent among precocial than among altricial birds, (4) conditions for polygyny should be met in marshes more regularly than in terrestrial environments, (5) polygyny should be more prevalent among species of early successional habitats, (6) polygyny should be more prevalent among species in which feeding areas are widespread but nesting sites are restricted, and (7) polygyny should evolve more readily among species in which clutch size is strongly influenced by factors other than the ability of adults to provide food for the young. In birds, where monogamy is the most common mating pattern, most cases of polygyny can be explained by the model.—G.D.S.
- RYDER, J. P. 1970. A possible factor in the evolution of clutch size in Ross' Goose. *Wilson Bull.*, 82: 5-13.—Color frontis.
- SAUER, J. D. 1969. Oceanic islands and biogeographical theory: a review. *Geogr. Rev.*, 59: 582-593.—A critical review of "The theory of Island biogeography" by MacArthur and Wilson considers the mathematical models oversimplifications based on inadequate consideration of the diversity actually involved.—E.E.

- SOKAL, R. R., AND T. J. CROVELLO. 1970. The biological species concept: a critical evaluation. *Amer. Naturalist*, 104: 127-153.—As basic problems with the species concept still remain, the need exists for continued evaluation. The authors consider theoretical aspects of the concept, how one actually delimits biological species in nature, whether such species exist in nature, and whether the concept is of any unique value to the study of evolution.—G.D.S.
- SOULÉ, M. AND B. R. STEWART. 1970. The "niche-variation" hypothesis: a test and alternatives. *Amer. Naturalist*, 104: 85-97.—Interpreting data on bill variation in six species of central African birds, the authors conclude that species with a broad range of food items appear to be no more variable than those with more specialized diet. They consider this as an "evolutionary test" of the "niche-variation model", which assumes that if niche size is greater, then variation in morphological characters, such as bill size, also would be greater. Similar data from other species do not show an association between niche width and morphological variability. Questions the idea and utility of speaking in terms of the width of ecological niches.—G.D.S.
- VEPSÄLÄINEN, K. 1968. Structure of the *Motacilla flava* L. population in the border zone between south and north Finland. *Ann. Zool. Fennica*, 5: 389-395.—Subspecies of the Yellow Wagtail differ in head color. Interbreeding between *M. f. thunbergi* of northern Finland, and an intermediate population of southern Finland was studied on a transect between 64° 04' and 64° 43' N, on which a rather narrow (10 to 20 km) intergrading zone of the male population (n = 180) has been localized. Male heterosis is explained genetically and habitat occupancy analyzed with respect to ratio of parental and hybrid types. In all habitats in the intergradation zone intermediate birds outnumber the parental forms. The change in racial composition seems to be more abrupt in treeless bogs than in more wooded habitats.—M.D.F.U.

GENERAL BIOLOGY

- ANDERSON, D. W., AND J. J. HICKEY. 1970. Oological data on egg and breeding characteristics of Brown Pelicans. *Wilson Bull.*, 82: 14-28.
- ANDRLE, R. F. 1969. Red-tailed Hawks nesting on cliffs in Ontario. *Canadian Field-Naturalist*, 83: 165.
- BÉRAUT, E. 1970. The nesting of *Gymnoderus foetidus*. *Ibis*, 112: 256.—Brief descriptions of the cryptic nest and nestling(s) of two cotingids, the Bare-necked Fruit-crow, and *Phibalura flavirostris*, the Swallow-tailed Cotinga.—F.E.L.
- BERGER, A. J. 1970. The eggs and young of the Palila, an endangered species. *Condor*, 72: 238-240.
- BOCHEŃSKI, Z. 1968. Nesting of the European members of the genus *Turdus* Linnaeus 1758 (Aves). *Acta Zool. Cracoviensia*, 13: 349-440.—A detailed and illustrated account of site, shape, size, and material of *Turdus* nests, with comparison of the structure of nests of extra-European species of Turdini. Considering the application of nest structure as a taxonomic character, it is of interest that in Siberia the Gray-cheeked Thrush *Hylocichla minima* uses mud in its nest, a feature believed to apply only to the nest of *H. mustelina* in this genus, and one of the characters used for moving the others to the genus *Calharus*. Descriptions that do not mention mud may be the result of superficial examination.—E.E.

- BROWN, L. H. 1970. Recent new breeding records for Kenya. Bull. Brit. Ornithol. Club, 90: 2-6.—Descriptions of nesting behavior of three little-known African species, *Accipiter ovampensis*, *Apaloderma narina*, and *Neocossyphus rufus*.—F.B.G.
- CORBET, P. S. 1969. The Arctic as an environment for research on rhythms. Nature, 222: 392.—The assumption that the Arctic lacks obvious diel time cues during summer is invalid. Light intensity, temperature near the ground, and sun azimuth are three of the most obvious *Zeitgebern* available.—K.P.A.
- DEMAREE, S. R. 1970. Nest-building, incubation period, and fledging in the Black-chinned Hummingbird. Wilson Bull., 82: 225.
- DIRCKSEN, J. 1968. Brandgans-Mauzerzug und tidenbedingte Bewegungen von Brandgans (*Tadorna tadorna*) und Eiderente (*Somateria mollissima*) im Raum um Trischen. Vogelwarte, 24: 179-184.—Migrations, local movements, and other observations on 30,000 molting Shelducks and 15,000 molting Eiders on Trischen Island in the Helgoland Bight. (English summary.)—H.C.M.
- DREWIEN, R. C., AND L. F. FREDRICKSON. 1970. High density Mallard nesting on a South Dakota island. Wilson Bull., 82: 95-96.
- ESCALANTE, R. 1969. Gaviotín Real apresado por una Gaviota Parda. Neotropica, 15: 64.—The Skua (*Catharacta*) seems to visit the La Plata river from March to September. One watched at Punta del Este, Uruguay, repeatedly attacked and finally killed a *Thalasseus maximus*.—E.E.
- FICKEN, R. W., AND L. B. WILMOT. 1968. Do facial eye-stripes function in avian vision? Amer. Midl. Naturalist, 79: 522-523.—Birds with eye-stripes may use them as aiming sights in striking moving prey. A rank-difference correlation of 0.94 was found between presence of an eye-stripe and feeding on swiftly moving prey for 141 North American songbirds in 22 families.—G.D.S.
- FRIEDMANN, H. 1969. Additions to knowledge of the Yellow-throated Glossy Cuckoo, *Chrysococcyx flavigularis*. J. Ornithol., 110: 176-180.—Summarizes field observations on the courtship habits and call notes of this little-known species and presents data on a series of eight specimens taken in western Uganda.—H.C.M.
- FRIEDMANN, H. 1970. The status and habits of Grauer's Broadbill in Uganda (Aves: Eurylaemidae). Los Angeles Co. Mus. Contrib. Sci., No. 176, pp. 1-4.—Five recently collected specimens of the rare *Pseudocalyptomena graueri* from the Impenetrable Forest, southwestern Uganda, are the same as topotypical east Congo birds. Stomach contents includes buds, flowers, and seeds, with a few insect larvae and beetles. Field notes indicate the species frequents forest undergrowth about 8 feet from the ground, not high trees as previously believed, and it is not an aerial feeder on flying insects.—H.H.
- GAGE, S. H., C. A. MILLER, AND L. J. MOOK. 1970. The feeding response of some forest birds to the black-headed budworm. Canadian J. Zool., 48: 359-366.—A 3-year study of the predatory effect of nine forest bird species on the large larvae and pupae of the black-headed budworm (*Acleris variana*) on the Green River watershed in northeastern New Brunswick. Sampling of insect populations and analysis of gizzards of the Slate-colored Junco, White throated Sparrow, Boreal Chickadee, Ruby-crowned and Golden-crowned Kinglets, and four species of *Dendroica* warblers enabled development of response curves that show changes in consumption in

- relation to changes in prey size, density, and other characteristics within the season. The digestion rates of three species (*D. castanea*, *D. coronata*, and *Zonotrichia albicollis*) were determined with a radioactive tracer. Although no details of this digestion experiment are provided, the results were (a) little variation was found between species tested, (b) passage of food through the digestive tract took 2.5 hours, and (c) if feeding were continuous, about 35 per cent of the food ingested within a 2.5 hr period still would be in the digestive tract at any point in time. From these data estimates of food consumption per day per acre were calculated. Percentage predation varied from 3 to 14 per cent and suggested that the birds react to their prey in a density-dependent manner.—H.W.K.
- HAARTMAN, L. v. 1969. Nest-site and evolution of polygamy in European passerine birds. *Ornis Fennica*, 46: 1-8.—Contrary to the situation reported for North America, among polygynous European passerines little correlation exists with habitat or feeding habits. However, a large proportion have domed nests or nest in holes. Possible reasons are discussed.—E.E.
- HARRIS, M. P. 1970. The biology of an endangered species, the Dark-rumped Petrel (*Pterodroma phaeopygia*), in the Galapagos Islands. *Condor*, 72: 76-84.
- HOLYOAK, D. 1969. The function of the pale egg colour of the Jackdaw. *Bull. Brit. Ornithol. Club*, 89: 159.—Experimentally darkened eggs of the hole-nesting *Corvus monedula*, were significantly less successful than the normal pale-colored eggs. Loss of darkened eggs appears to have been due to accidental breakage, suggesting that the normal pale egg color is of selective advantage because it enables the birds to see the eggs more clearly in the half-light of the nest hole.—F.B.G.
- HORAK, G. J. 1970. A comparative study of the foods of the Sora and Virginia Rail. *Wilson Bull.*, 82: 206-213.
- INGOLFSSON, A. 1970. The moult of remiges and rectrices in Great Black-backed Gulls *Larus marinus* and Glaucous Gulls *Larus hyperboreus* in Iceland. *Ibis*, 112: 83-92.—Both species molt primaries sequentially from 1 to 10, but *marinus* does so more rapidly than *hyperboreus*. *L. hyperboreus* began molt before the first egg was laid and a month before *marinus*. In both species, birds of nonbreeding age were noted to begin primary molt before adults. Secondary and rectricial molt began when primary molt was about half completed. Secondaries were replaced at different rates from proximal towards distal and from distal towards proximal, with the two waves meeting at about $\frac{1}{3}$ the distance from the proximal end. The rapid rectricial molt showed large variation of pattern but basically appeared to be centrifugal.—B.A.H.
- JENSEN, R. A. C., AND M. K. JENSEN. 1969. On the breeding biology of southern African cuckoos. *Ostrich*, 40: 163-181.—A summary from nest record cards of the South African Ornithological Society, emphasizing breeding season, hosts, clutch size, and identification of eggs and young of the parasitic cuckoos of South Africa.—M.A.T.
- KILGORE, D. L. 1969. An ecological study of the swift fox (*Vulpes velox*) in the Oklahoma Panhandle. *Amer. Midl. Naturalist*, 81: 512-534.—As a part of his study, Kilgore determined food habits of swift foxes. Passerine bird species were represented in 33.6 per cent of the seven stomachs. Bird remains identified to species included *Colinus virginianus*, *Eremophila alpestris*, *Sturnella neglecta*, and *Calamospiza melanocorys*.—G.D.S.

- LABISKY, R. F., AND G. L. JACKSON. 1969. Shell color of eggs laid by yearling, 2-, and 3-year-old pheasants. *Wilson Bull.*, 81: 466-467.
- LILL, A. 1970. Nidification in the Channel-billed Toucan (*Ramphastos vitellinus*) in Trinidad, West Indies. *Condor*, 72: 235-236.
- LILL, A., AND R. P. FRENCH. 1970. Nesting of the Plain Antvireo *Dysithamnus mentalis andrei* in Trinidad, West Indies. *Ibis*, 112: 267-268.—Data from 10 nests.—F.E.L.
- MACLEAN, G. L. 1969. A study of Seedsnipe in southern South America. *Living Bird*, 8: 33-80.—Breeding biology of the two species of *Thinocorus* with discussion of their possible relationship. Included are growth and development, maintenance and breeding behavior (except pair formation), and a review of literature.—B.A.H.
- MARSHALL, B. E., AND J. COOPER. 1969. Observations on the breeding biology of the Fiscal Shrike. *Ostrich*, 40: 141-149.—Courtship through post-fledging behavior of *Lanius collaris*.—M.A.T.
- MARTI, C. D. 1969. Renesting by Barn and Great Horned Owls. *Wilson Bull.*, 81: 467-468.
- MENGEL, R. M., AND M. A. JENKINSON. 1970. Parasitism by the Brown-headed Cowbird on a Brown Thrasher and a Catbird. *Wilson Bull.*, 82: 74-78.
- MÖNKE, R. 1968. Beuteliste eines überwinterten Sperbers, *Accipiter nisus*, im Berliner Stadtgebiet. *Milu*, 2: 372-374.—An overwintering Sparrow Hawk accounted for a large number of plucked birds found in a relatively small copse in 1964-65. In 1965-66 only 6 were found, all from migrating raptors.—S.C.W.
- MUELLER, H. C. 1968. The role of vision in vespertilionid bats. *Amer. Midl. Naturalist*, 79: 524-525.—Mueller suggests that vision has been retained in these bats to facilitate avoidance of diurnal flight and predation by hawks.—G.D.S.
- MULLAN, J. W., AND R. L. APPLGATE. 1969. The drowning of Bobwhites in a large reservoir. *Wilson Bull.*, 81: 467.
- NEWTON, I. 1969. Moults and weights of captive Redpolls *Carduelis flammea*. *J. Ornithol.*, 110: 53-61.—Great detail on the sequence and timing of molt in six captive individuals. These captives differed from wild birds in that they were heavier and fatter before and after molt.—H.C.M.
- NICKELL, W. P. 1969. Unusual nesting habitats of three bird species in Rondeau Provincial Park, Ontario. *Wilson Bull.*, 81: 454-459.
- QUELLET, H. 1970. Further observations on the food and predatory habits of the Gray Jay. *Canadian J. Zool.*, 48: 327-330.—Describes *Perisoreus canadensis* feeding on carcasses, fruit, bear dung, axle grease, eggs and nestlings of several species of passerines, and a small rodent (*Clethrionomys*). Gray Jays occasionally carry prey in their feet. The species' role as a scavenger and predator in coniferous forests warrants further study.—H.W.K.
- PEARSON, D. J. 1970. Weights of Red-backed Shrikes on autumn passage in Uganda. *Ibis*, 112: 114-115.
- REDHEAD, R. E. 1969. Some aspects of the feeding of the harrier. *Notornis*, 16: 262-284.—Food habits of wild and captive *Circus approximans* from February 1966 to

- December 1967 on South Island, New Zealand. From the 129 crops and stomachs, 254 food items were identified, including traces of sheep, small mammals, passerines, and ducks. Weights are included and the indecisiveness of eye color in indicating sex is noted.—G.D.S.
- ROWAN, M. K. 1969. A study of the Cape Robin in Southern Africa. *Living Bird*, 8: 5–32, 1 color plate.—Life history data from South Africa for *Crossypha cafra*, the only member of the genus widely distributed in temperate habitats. Pairs apparently mate for life and remain together on territories year round. Unmated individuals, which quickly fill in when a mated bird disappears, and with little disruption of territorial boundaries, appear to exist by skulking in the territories of others. Territory size varies with habitat and ranges from 600 to 9,000 square yards. *Crossypha cafra* nests low, is two-brooded, and lays 2 or 3 eggs. About $\frac{1}{3}$ of the eggs produce flying young and $\frac{1}{4}$ of the adults survive 1 year.—G.E.W.
- SAOTOME, Y. 1968. Brown Boobies observed near the Bonin Islands. *Misc. Repts. Yamashina Inst. Ornithol.*, 5: 414–419.—*Sula leucogaster* was studied during a fisheries research cruise in July and August 1968. Most were observed within 10 miles of land; only once was an individual seen as much as 35 miles from land. The main breeding concentration is thought to be the ledges of Haha-shima. One *Sula dactylatra* was seen. Maps with ship position and meteorological data. (In Japanese; English summary, tables, and captions.)—K.C.P.
- SCHREIBER, R. W. 1970. Breeding biology of Western Gulls (*Larus occidentalis*) on San Nicolas Island, California, 1968. *Condor*, 72: 133–140.
- SICK, H. 1970. Notes on Brazilian *Cracidae*. *Condor*, 72: 106–108.
- SIEGFRIED, W. R. 1969. The proportion of yolk in the egg of the Maccoa Duck. *Wildfowl*, 20: 78.—Among the waterfowl, the stiff-tailed ducks, tribe Oxyurini, have the greatest egg-weight to body-weight ratio. As in other anatids, the proportion of yolk to total egg weight does not vary significantly. Conclusion is based on eggs of *Oxyura maccoa* (and also *O. jamaicensis*; see footnote by J. Kear).—G.E.W.
- SMITH, N. G. 1970. Nesting of King Vulture and Black Hawk-Eagle in Panama. *Condor*, 72: 247–248.
- SOPER, M. F. 1969. Kermadec Island Expedition reports/the Spotless Crake (*Porzana tabuensis plumbea*). *Notornis*, 16: 219–220.—Miscellaneous habits, nesting, and population size on two small New Zealand islets. One Spotless Crake was observed eating the contents of a petrel egg.—G.D.S.
- STRESEMANN, E., AND V. STRESEMANN. 1969. Die Mauser von *Ptyonoprogne rupestris* und *Delichon nipalensis*. *J. Ornithol.*, 110: 39–52.—The Nepal Martin is a permanent resident in moderate altitudes in the Himalayas and has a flight feather molt that is protracted over 8 months and arrested only during the colder months. Other species of *Delichon* migrate to warmer regions and molt there. (English summary.)—H.C.M.
- THORESEN, A. C. 1969. Observations on the breeding behaviour of the Diving Petrel *Pelecanoides u. urinatrix* (Gmelin). *Notornis*, 16: 241–260.—Observations from Green Island, Mercury Group, and other small New Zealand islands include information on calls, weights, and measurements of young and adults. Incubation periods and body temperatures are included, and various behavior patterns are compared briefly with the Cassin Auklet (*Ptychoramphus aleutica*).—G.D.S.

- THUT, R. N. 1970. Feeding habits of the Dipper in southwestern Washington. *Condor*, 72: 234-235.
- TIMKEN, R. L. 1970. Food habits and feeding behavior of the Baltimore Oriole in Costa Rica. *Wilson Bull.*, 82: 184-188.
- UHLER, F. M., AND L. N. LOCKE. 1970. A note on the stomach contents of two Whooping Cranes. *Condor*, 72: 246.
- VERMEER, K. 1969. Some aspects of the breeding of the White-winged Scoter at Miquelon Lake, Alberta. *Blue Jay*, 27: 72-73.—Clutch initiation for 20 nests, egg laying interval, egg measurements, clutch size, and nest success.—R.W.N.
- VERMEER, K. 1970. A study of Canada Geese *Branta canadensis*, nesting on islands in southeastern Alberta. *Canadian J. Zool.*, 48: 235-240.—Some aspects of nesting activity from egg laying until hatching for populations of a large race of Canada Geese nesting on islands in Dowling Lake and Lake Newell in Alberta. Egg-laying intervals averaged 1.9 days, incubation periods 26.8 days, and clutch size 5.4 (L. Dowling) and 5.8 (L. Newell). Causes of egg mortality were predation (chiefly by coyotes) and desertion. Canada Geese apparently prefer to nest on islands to avoid mammalian predation.—H.W.K.
- ZAR, J. H. 1970. On the fitting of equations relating avian standard metabolism to body weight. *Condor*, 72: 247.

MIGRATION AND ORIENTATION

- GRONAU, J., AND K. SCHEMIDT-KOENIG. 1970. Annual fluctuation in pigeon homing. *Nature*, 226: 87-88.—Homing performance dropped to a minimum in February and March and reached a maximum in July (veterans) or July to September (naive birds). The performances of veterans and naive birds differed significantly. Fluctuations in the performance of veterans were statistically significant, but smaller than those of naive birds. The initial orientation also showed a pronounced annual fluctuation, more evident in naive birds. The nature and mechanism of the fluctuation remain unknown.—K.P.A.
- KEETON, W. T., AND A. GOBERT. 1970. Orientation by untrained pigeons requires the sun. *Proc. Natl. Acad. Sci.*, 65: 853-856.—Untrained homing pigeons released on sunny days at distances of $20 \pm$ miles oriented homeward regardless of direction from the loft. Others on days of total overcast vanished randomly, whereas trained birds on the same days oriented homeward. Apparently untrained pigeons require the sun for orientation but those trained do not.

MISCELLANEOUS

- BAILLIE, J. M. 1969. Audubon—and his Great Auk. *Ontario Naturalist*, September 1969: 12-15.—The Royal Ontario Museum acquired a Great Auk specimen, the very one that Audubon used as a model. It was collected on Eldey Island, stuffed with German newspapers, purchased by Audubon in London in 1836, donated to Vassar College in 1867, mounted at the M.C.Z. and deposited at the A.M.N.H. in 1921, and purchased by the R.O.M. in 1964.—F.E.L.
- BANNISTER, J. V., W. H. BANNISTER, AND H. MICALLEF. 1969. A volumetric respirometer for studies of aerial and aquatic oxygen consumption. *Oikos*, 20: 534-536.—

- Presents the constructional and operational details of an improved version of a plastic respirometer described earlier by Micallef (*Experientia*, 23: 52, 1967). The volumetric device is a micro-dosimeter with a dial indicator that gives direct readings of oxygen consumption.—H.W.K.
- CONE, C. D., JR. 1968. The aerodynamics of flapping birdflight. Virginia Inst. Marine Sci., Spec. Sci. Rept., No. 52: 1-133. Gloucester Point, Virginia.—The flapping flight of birds is analogous to hopping in terrestrial locomotion, with air comparable to the resistance of the earth surface. The phenomenon, while readily understandable in a broad sense, involves "an intricate sequence of deformations, twists, flexings, featherings, bendings, and changes of attitude and directions." Based on photographs of birds in flight the author attempts to analyze the aerodynamics of flight with mathematical formulae and graphs.—E.E.
- GALUSHIN, V. M. 1960. Studies on the feeding of nestlings of predatory birds with the aid of a nest box. *Zool. Zh.*, 34: 429-432. (Israel Program for Scientific Translations).—Food was collected from 6 nests of 4 species using a nest box designed so that food items rolled down a sloping net to a position where neither parents nor young could reach them. After examination the food was given to the young. This method allows collection of all food items throughout the nestling period.—S.C.W.
- GRANT, P. J., AND R. E. SCOTT. 1969. Field identification of juvenile Common, Arctic and Roseate Terns. *Brit. Birds*, 62: 297-299.—With sketches of standing and flying birds.—H.B.
- HILLBRICHT-ILKOWSKA, A., J. LUCZAK, E. PROT, AND I. SPODNIEWASKA. 1969. Polish Ecological Bibliography for 1965. *Polish Acad. Sci. Inst. Ecol.*, Warsaw, 234 pp.—A total of 516 titles, abstracted and subject-indexed, includes 23 titles dealing with birds, and many others pertaining to territorialism, population changes and dynamics, habitat ecology, and other subjects that interest bird ecologists. Another 55 publications from 1965 will be included in the 1966 volume.—M.D.F.U.
- HJORTH, I. 1970. A comment on graphic displays of bird sounds and analyses with a new device, the melograph mona. *J. Theoret. Biol.*, 26: 1-10.—Describes a device that registers both fundamental frequencies (as sonagrams do) and pressure levels of sounds, and discusses its applicability to the study of bird vocalizations.—J.J.D.
- LEHNER, P. N., AND A. EGBERT. 1969. Dieldrin and eggshell thickness in ducks. *Nature*, 224: 1218-1219.—Low sublethal doses of dieldrin (1.6, 4.0, and 10.0 ppm) caused a statistically significant decrease in both cap and lateral eggshell thickness in *Anas platyrhynchos*.—K.P.A.
- LLOYD, M., J. H. ZAR, AND J. M. KARR. 1968. On the calculation of information-theoretical measures of diversity. *Amer. Midl. Naturalist*, 79: 257-272.—Gives formulae for computing these diversity measures, as well as an example to show that the Shannon and Brillouin indices can be calculated with equal ease, and convenient tables for calculating these, as well as Basharin's standard error.—G.D.S.
- SIMMONS, G. A., AND N. F. SLOAN. 1969. A new bird nest monitoring technique. *Amer. Midl. Naturalist*, 81: 276-279.—Describes an event recorder used to register the number of nest visits of *Hylocichla guttata* and *Junco hyemalis*.—G.D.S.
- SUMMERS-SMITH, D., J. PINOWSKI, AND E. R. SCHERNER. 1969. Bibliography of the genus *Passer*, 3. *Internl. Studies on Sparrows*, 3: 71-100.

- URBAN, E. K. 1970. Bibliography of the avifauna of Ethiopia. Haile Sellassie I Univ. Press, Addis Ababa, 28 pp. No price listed.—A much needed bibliography for a neglected region of Africa. Includes everything from single species accounts to major faunal and systematic revisions. From rapid spot-checking, it appears complete.—M.A.T.
- WEGHE, J.-P. V. 1970. Identification of the Common Tern and the Arctic Tern. California Birds, 1: 33-36.—Includes excellent photographs.—R.W.S.

PHYSIOLOGY

- ABERCROMBIE, C., B. R. MABER, AND F. VELLA. 1969. Studies on the hemoglobin of the Great Horned Owl (*Bubo virginianus*). Canadian J. Biochem., 47: 571-576.—Hemolysates of 24 adult Great Horned Owls had a single band in electrophoresis on paper, agar, or starch gel (in various buffers of pH 6.2-8.6). No variation was noted in electrophoretic mobility, alkali resistance, or spectral absorption properties. At alkaline pH in solutions containing 8 M urea and 1 per cent mercaptoethanol only a single polypeptide band was found. Tryptic and chymotryptic "fingerprints" had some characteristics in common with similar patterns of human hemoglobin. From this the authors conclude there must be a number of presumably homologous sequences in the globins of these species. Only indirect evidence is presented for the presence of two different polypeptide chains in the owl.—A.H.B.
- CHILD, G. I., AND S. G. MARSHALL. 1970. A method of estimating carcass fat and fat-free weights in migrant birds from water content of specimens. Condor, 72: 116-119.
- COHEN, R. R. 1969. Total and relative erythrocyte levels of Pintail ducks (*Anas acuta*) in chronic decompression hypoxia. Physiol. Zool., 42: 108-119.—Venous hematocrit, total erythrocyte volume, and total blood volume increased markedly within 20 days in Pintails exposed to 310 mm Hg total pressure, confirming that birds, like mammals, possess the ability to control erythropoiesis.—J.R.
- COHEN, R. R. 1969. Recovery of erythrocyte levels following chronic decompression hypoxia in Pintail ducks (*Anas acuta*). Physiol. Zool., 42: 120-125.—Venous hematocrit, total erythrocyte volume, and total blood volume levels that had been elevated in acclimation to hypoxia (after 64 days exposure to 310 mm Hg) returned to normal levels after approximately 20 days exposure to ambient (620 mm Hg) pressure conditions.—J.R.
- DONHAM, R. S., AND F. E. WILSON. 1970. Photorefractoriness in pinealectomized Harris' Sparrows. Condor, 72: 101-102.
- HAMNER, W. M., AND R. J. BARFIELD. 1970. Ineffectiveness of pineal lesions on the testis cycle of a finch. Condor, 72: 99-101.
- HEPPNER, F. 1970. The metabolic significance of differential absorption of radiant energy by black and white birds. Condor, 72: 50-59.
- HUNT, L. B. 1969. Physiological susceptibility of Robins to DDT poisoning. Wilson Bull., 81: 407-418.
- KENDEIGH, S. C. 1969. Energy responses of birds to their thermal environments. Wilson Bull., 81: 441-449.

- KENDEIGH, S. C. 1970. Energy requirements for existence in relation to size of bird. *Condor*, 72: 60-65.
- KENDEIGH, S. C., J. E. KOTOGIANNIS, A. MAZAC, AND K. R. ROTH. 1969. Environmental regulation of food intake by birds. *Comp. Biochem. Physiol.*, 31: 941-957.—House Sparrows compensate for nighttime stress of cold or exercise by increasing evening body weight. Diurnal feeding is proportional to both nightly weight loss and daytime temperature stress. Feeding activity has about a 50 per cent efficiency (i.e. one half the ingested energy is stored). Morning weights determine the length of feeding bouts during the day.—A.H.B.
- KUENZEL, W. J., AND C. W. HELMS. 1970. Hyperphagia, polydipsia, and other effects of hypothalamic lesions in the White-throated Sparrow, *Zonotrichia albicollis*. *Condor*, 72: 66-75.
- LEWIS, R. W. 1969. Studies on the stomach oils of marine animals. 2. Oils of some procellariiform birds. *Comp. Biochem. Physiol.*, 31: 725-731.—Oils from *Puffinus carneipes*, *Procellaria westlandica*, and *Diomedea exulans* contained squalene and pristane but otherwise varied widely in composition. All available evidence indicates these oils are dietary residues rather than secretions.—A.H.B.
- NEWTON, I. 1969. Winter fattening in the Bullfinch. *Physiol. Zool.*, 42: 96-107.—English *Pyrrhula p. nesa* were heavier in December-January than in October-November. Differences in water, protein, and fat contributed to the weight disparity. The latter apparently is required in greater quantities in winter for overnight metabolism.—J.R.
- OWEN, R. B. 1969. Heart rate, a measure of metabolism in Blue-winged Teal. *Comp. Biochem. Physiol.*, 31: 431-436.—A relationship was established between existence metabolism and heart rate at various temperatures. Metabolism was predicted from heart rate and under semi-natural conditions heart rate was used to estimate metabolic rate. Oxygen pulse decreased as temperature decreased.—A.H.B.
- RISING, J. D. 1969. A comparison of metabolism and evaporative water loss of Baltimore and Bullock Orioles. *Comp. Biochem. Physiol.*, 31: 915-925.—Both species are characterized by standard metabolic rates depressed about 14 per cent below that predicted from body weight. *I. bullockii* on the bases of temperature regulation and metabolism seems slightly better adapted to arid, warm conditions. These responses correlate with ecological preferences.—A.H.B.
- SIBLEY, C. G., AND H. T. HENDRICKSON. 1970. A comparative electrophoretic study of avian plasma proteins. *Condor*, 72: 43-49.
- SMITH, R. W., I. L. BROWN, AND L. R. MEWALDT. 1969. Annual activity patterns of caged non-migratory White-crowned Sparrows. *Wilson Bull.*, 81: 419-440.
- WARD, P. 1969. Seasonal and diurnal changes in the fat content of an equatorial bird. *Physiol. Zool.*, 42: 85-95.—Seasonal and daily changes in the lipid reserves of Yellow-vented Bulbuls (*Pycnonotus goiaver*) from Singapore. Approximately 0.6 g of fat are required for overnight metabolism and little or no seasonal variation of this quantity or of total lipid reserves exists.—J.R.

TAXONOMY AND PALEONTOLOGY

- BENSON, C. W. 1969. The relationship of *Turdus pelios bocagei* (Cabanis) and *Turdus pelios stormsi* Hartlaub. *Bull. Brit. Ornithol. Club*, 89: 133-134.—A speci-

- men of *Turdus pelios* from Ngara, western Angola, resembles *T. p. stormsi* of eastern Angola in color, but it is referable to the smaller *T. p. bocagei* of western Angola on the basis of wing length. Thus, there is no reason to consider these two forms specifically distinct on the basis of apparent sympatry.—F.B.G.
- BROOKE, R. K. 1969. The tropical African population of *Apus affinis*. Bull. Brit. Ornithol. Club, 89: 166–167.—The main tropical African population of *Apus affinis* (Gray) is distinguishable from both *A. a. abessynicus* (Streubel) and nominate *affinis*, to which it has been referred heretofore. It is here named *Apus affinis aerobates* nom. nov. pro. *A. a. abessynicus* auctorum non Streubel. Although *A. a. abessynicus* (Streubel, 1848) has priority over *A. a. galilejensis* (Antinori, 1855) for the breeding population of Ethiopia, application has been made to the International Commission for Zoological Nomenclature to “suppress the name *abessynicus* in the combination *Cypselus abessynicus* Streubel 1848, thus preserving *galilejensis* in its traditional sense and usage.—F.B.G.
- BROOKE, R. K. 1969. *Hemiprocne coronata* is a good species. Bull. Brit. Ornithol. Club, 89: 168–169.—*Hemiprocne coronata* (Tickell) is sufficiently different from both *H. longipennis* (Rafinesque) and *H. mystacea* (Lesson) to warrant specific recognition. Proposes the following descriptive vernaculars: *H. coronata*, Crested Treeswift; *H. longipennis*, Grey-rumped Treeswift; *H. mystacea*, Greater Treeswift; *H. coronata*, Lesser Treeswift.—F.B.G.
- CRACRAFT, J. 1969. Systematics and evolution of the Gruiformes (Class, Aves). 1. The Eocene family Geranoididae and the early history of the Gruiformes. Amer. Mus. Novitates, No. 2388: 41 pp.—This family was originally erected for the single species *Geranoides jepseni* Wetmore. It is here expanded to include *Paragrus prentici* (most recently considered a true crane), *P. shufeldti* [sic] sp. nov., *Eogeranoides campivagus* gen. and sp. nov., *Palaeophasianus meleagroides* (formerly thought to be galliform), *P. incompletus* sp. nov., and *Geranodornis aenigma* gen. and sp. nov., all from the Eocene of Wyoming. Detailed comparisons are made to try to determine relationships within the family and within the order. A tentative phylogeny of certain gruiform families is presented. The author's classification differs in several respects from that of Brodkorb (Bull. Florida State Mus., 11: 99–220, 1967); one of the most important conclusions is that the Geranoididae were probably ancestral to the Bathornithidae, thus removing the latter from the cariamid-phororacoid line of gruiforms.—K.C.P.
- DESFAYES, M. 1969. Affinities of *Chaimarrornis* and *Rhyacornis*. Ibis, 111: 244–246.—The redstarts *C. leucocephala*, *R. fuliginosus*, and *R. bicolor* have been included in *Phoenicurus*, however, *C. leucocephala* is more like *Thamnolaea*, and *R. fuliginosus* and *R. bicolor* closer to *Oenanthe*.—F.E.L.
- DIAMOND, J. M. 1969. Preliminary results of an ornithological exploration of the North Coastal Range, New Guinea. Amer. Mus. Novitates, No. 2362: 57 pp.—The North Coastal Range (consisting of the Bewani, Torricelli, and Prince Alexander mountains) of New Guinea is isolated by lowlands from the central ranges and from a series of mountain “islands” to the east and west. Avifaunal affinities tend to be with the “islands” to the west. The mid-montane (4,500 feet +) avifauna, although depauperate, shows the highest level of endemism. Detailed revisions are presented for the genera *Rallicula* and *Ptiloprora* and of the *Sericornis virgatus-beccarii-nouhuysi* complex. The race *citreola* Rand is found to belong to *Meliphaga*

- orientalis*, rather than being an altitudinal race of *M. analoga* as originally described. The range of the Golden Bowerbird (*Sericulus aureus*) is extended eastward by 300 miles. Of 28 races of meliphagids described by Salomonsen (Breviora, No. 254, 1966), the 7 studied so far by the author and by Mrs. LeCroy have all been found not to warrant taxonomic recognition. Named in this paper are: *Rallicula mayri carmichaeli*, *Aegotheles wallacii manni*, *Coracina montana bicinia*, *Crateroscelis robusta bastille* (type collected 14 July), *Eupetes leucostictus menawa*, *Sericornis virgatus boreonesioticus*, *Epimachus fastosus ultimus* (sole population of a montane bird of paradise in the North Coastal Range), and *Ptiloprora mayri acrophila*. *Melidectes rufocrissalis gilliardi* Diamond 1967, preoccupied, is renamed *M. r. thomasi*.—K.C.P.
- DICKERMAN, R. W. 1970. A systematic revision of *Geothlypis speciosa*, the Black-pollled Yellowthroat. Condor, 72: 95-98.
- GOODWIN, D. 1969. A new subspecies of the White-quilled Rock Pigeon. Bull. Brit. Ornithol. Club, 89: 131-133.—*Petrophassa albipennis boothi* subsp. nov. from the Stokes Range, Northern Territory, Australia, differs from *P. a. albipennis* in having only obsolescent traces of the white patch in the primaries.—F.B.G.
- HOWARD, H., AND S. L. WARTER. 1969. A new species of bony-toothed bird (Family *Pseudodontornithidae*) from the Tertiary of New Zealand. Rec. Canterbury Mus., 8: 345-357.—*Pseudodontornis stirtoni* is described, based on a partial skull from a concretion of probably Pliocene age, found on Motonau Beach north of Christchurch. An associated femur indicates that previously suggested synonymy of *Pseudodontornis* with *Palaeochenoides* is untenable.—H.H.
- HUDSON, G. E., K. M. HOFF, J. V. BERGE, AND C. TRIVETTE. 1969. A numerical study of the wing and leg muscles of Lari and Alcae. Ibis, 111: 459-524.—As a result of extensive study the authors suggest the Lari and Alcae be given subordinal taxonomic status. They also suggest that *Alca* and *Uria* be placed at the end of the alcid series of genera.—B.A.H.
- KUROTCHKIN, E. H. 1968. New Oligocene birds of Kazaxctan. Paleon. J. Acad. Sci. USSR, 1968, No 1: 92-101.—The following new species are described: *Cygnopterus lambrechtii*, holotype humerus; *Cygnavus formosus*, holotype tibiotarsus; *Megagal-linula* (new genus) *harundinea*, holotype ulna; and *Limicorallus* (new genus) *saiensis*, holotype humerus.—H.H.
- KUROTCHKIN, E. H. 1968. Fossil remains of Oligocene birds from Mongolia. Ornithologiya, No. 9: 323-329.—The following new species are described: *Buteo circoides*, holotype ulna; *Tutor* (new accipitrid genus) *dementjevi*, holotype humerus; *Gobihierax* (new genus) *edax*, holotype humerus; and *Palaeorallus alienus*, holotype tibiotarsus.—H.H.
- PARKES, K. C. 1969. Subspecific status of the Small Skylark *Alauda gulgula* in the Philippines, with notes on age characters and moult. Bull. Brit. Ornithol. Club, 89: 117-119.—Differences in size, dorsal coloration, and rectrix pattern appear sufficient to justify recognition of *Alauda gulgula wolfei* Hachisuka as the resident skylark in the Philippines. Previously, because of inadequate material, it was not considered distinguishable from *A. g. wattersi* of Formosa. Birds of the year may be distinguished from adults by shorter, blunter crest feathers. Prebasic molt occurs in July and August.—F.B.G.

SHORT, L. L., JR. 1969. A new genus and species of gooselike swan from the Pliocene of Nebraska. Amer. Mus. Novitates, No. 2369: 7 pp.—A partial coracoid in the Univ. Nebraska State Mus. is described as *Paracygnus plattensis*. Although swanlike in size and in some of its characters, it shows certain similarities to *Branta*. It is considered to be a swan, closer to the "Cygnus group" than to the "Olor group" (= genera of A.O.U. Check-list usage).—K.C.P.

STONEHOUSE, B. 1970. Geographic variation in Gentoo Penguins *Pygoscelis papua*. Ibis, 112: 52–57.—Measurements of culmen, foot, flipper length and area, and dorsal and ventral plumage length for gentoos from eight breeding areas. Males are larger than females. Contrary to Bergmann's Rule, birds from S. Orkney and S. Shetland Islands, like those from the Antarctic Peninsula, are smaller and have longer plumage than those from other populations. The thick plumage offsets any size disadvantage. The subspecies *ellsworthi* is retained for the Antarctic Peninsula birds and extended to include the S. Orkney and S. Shetland birds; all other forms are considered *P. p. papua*. Island stocks are isolated by sedentary habits, water temperature, climate barriers, and timing of breeding cycles.—C.F.S.

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OBITUARIES

WILLIAM HENRY PARTRIDGE (1924–1966) was born in Leones, province of Córdoba, Argentina, and was thoroughly Latin in temperament and in appearance, although he attributed his interest in birds to his partly British ancestry. He was elected an Elective Member of the American Ornithologists' Union in 1956, having been a Member since 1953. He became associated with the Museo Argentino de Ciencias Naturales in Buenos Aires in 1946, working first in the department of botany, then in entomology and zoo-ecology, and ultimately in the division of ornithology, where his real interest lay. His longest papers appeared in 1953 and 1954 when he successively published distributional accounts of birds collected and observed in the provinces of Córdoba and San Luis (*El Hornero*, 10 (1): 23–73, 1953) and Misiones (*Rev. Inst. Nac. Invest. Cien. Nat.*, 3: 87–153, 1954). He was particularly fascinated by the immense bird fauna of Misiones, the most northern and most tropical province of Argentina; regularly he returned to the area, for he enjoyed not only the birds but the Guarani-speaking people of Misiones. He hoped to publish a book on its avifauna.

Awarded a Guggenheim Foundation Fellowship, Partridge came to the United States