PERIODICAL LITERATURE

EDITED BY GLEN E. WOOLFENDEN

A New Series

Korean nature. Publ. Assoc. for Nature Conserv. of Democratic People's Republic of Korea. A semi-popular natural history magazine, apparently to be published four times a year. The individual issues are numbered but dated only with the year. Thus far, the editor of The Auk has received nos. 1–4, 1968. All articles are in rather awkward English. Subject matter is diversified, ranging from "Biological faculty of Kim Il Sung University" and "Bird protection by the whole masses," to "Profound solicitude of the leader for the development of biology." The four issues have color photographs of birds gracing their covers, and articles dealing wholly or in part with birds. The reporting of biologically relevant facts is regrettably enmeshed in a sea of propagandistic rhetoric about the glorious leader and the 40 million Korean people as well as random attacks on the poor peasants of miserable South Korea and her capitalistic friends across the Pacific.—J.W.H.

Anatomy and Embryology

Berger, A. J., and D. H. Howard. 1968. Anophthalmia in the American Robin. Condor, 70: 386–387.

Cowles, G. S. 1967. The palate of the Red-necked Nightjar *Caprimulgus ruficollis* with a description of a new feature. Ibis, 109: 260–265.—The palate is membranous and vascularized, unlike the cornified rhamphotheca of most birds. The new feature is the "transpalatine canal," lateral grooves on the transpalatine process which carry the palatine arteries. Caprimulgids (11 species of 6 genera examined) have this feature; frogmouths, owlet-nightjars, and the Oilbird lack it [potoos?]. The presumably more sensitive palate lining may be adaptive for aerial feeding in dim light.—W.B.R.

Cracraft, J. 1968. The lacrimal-ectethmoid bone complex in birds: a single character analysis. Amer. Midl. Naturalist, 80: 316–359.—The lacrimal-ectethmoid bone complex of over 2,700 specimens, representing most avian families, exhibits great structural diversity. Discussed are the function of the complex and how the results demonstrate several phylogenetic principles.—G.D.S.

Fry, C. H. 1969. Structural and functional adaptation to display in the Standard-winged Nightjar *Macrodipteryx longipennis*. J. Zool., 157: 19–24.—A description and figure of the display flight in which the greatly elongated second primaries are lifted nearly vertically above the wing. Probably this is achieved aerodynamically as well as muscularly.—K.P.A.

George, W. G. 1968. A second report on the basihyale in American songbirds, with remarks on the status of *Peucedramus*. Condor, 70: 392–393.

Gottlieb, G., and J. G. Vandenbergh. 1968. Ontogeny of vocalization in duck and chick embryos. J. Exp. Zool., 168: 307–326.—Both ducklings and chicks produce at least three different kinds of vocalizations before hatching. Vocal ability appears earlier in ducks. The only effective method found to mute living embryos was stiffening the tympaniform membranes by painting with collodion.—A.S.G.

Harrison, C. J. O. 1969. Additional information on the carpometacarpal process as a taxonomic character. Bull. Brit. Ornithol. Club, 89: 27–29.—A series of Aus-

tralian genera were examined for the presence or absence of this process. Considerable variation in development exists. Its presence is highly variable in Meliphagidae and Muscicapidae (*sensu lato,* but excluding Timaliidae). It seems inadvisable to place much weight upon this character.—K.P.A.

HARVEY, E. B., H. E. KAISER, AND L. E. ROSENBERG. 1968. Atlas of the domestic Turkey (*Meleagris gallopavo*): Myology and osteology. Div. Biol. Med., U.S. Atomic Energy Comm. Quarto, i–xii, 1–247, 85 plates. Available from Superintendent of Documents, Washington, D.C. 20402. Limp cover, $2.75.—A series of clearly presented figures, based on examination of one immature and 25 mature male and female domestic Turkeys of the broad-breasted bronze and white Holland varieties. A page or more of concise description accompanies each plate, a synonymy is concerned with names of muscles, and a brief general bibliography gives references to the Turkey in general.

MORLION, M. L. 1968. The podotheca of some African genera of Ploceidae. Biologisch Jaarboek (Gent), 36: 159–168.—Detailed descriptions (with figs.) of *Textor, Estrilda,* and *Hypochera,* and comparisons with many other Ploceidae. Includes discussion of variability of the scutellation, and its usefulness as a taxonomic character.—M.H.C.

MORLION, M. L. 1968. De Pteryla capitis in enkele afrikaanse genera van de Ploceidae. Natuurwet. Tijdschr., 50: 101–131.—Detailed descriptions of the pterylosis of the capital tract in *Textor, Estrilda,* and *Hypochera,* with comparisons to 15 other ploceid genera. The three main subjects are figured feather-by-feather. The capital tract is quite uniform within a subfamily, and the Viduinae and Estrildinae are similar to one another. (In Dutch; English summary.)—M.H.C.

NARAYANAN, C. H., AND R. OPPENHEIM. 1968. Experimental studies on hatching behavior in the chick. 2. Extirpation of the right wing. J. Exp. Zool., 168: 395–402.—Following removal of right wing buds from embryos, behavioral patterns of operated chicks were similar to those of normal chicks. Operated chicks increased head movements.—A.S.G.

NERO, R. W. 1968. Another record of white wing-barring in the Common Crow. Canadian Field-Naturalist, 82: 42–43.

NORBERG, A. 1968. Physical factors in directional hearing in *Aegolius funereus* (Linne) (Strigiformes), with special reference to the significance of the asymmetry of the external ears. Arkiv. Zoologi, 20: 181–204.—Studies with an artificial owl head indicated that the vertical asymmetry of the external auditory meatuses theoretically makes it possible for the owl to judge by ear the direction of a moving prey accurately and simultaneously in both horizontal and vertical planes.—J.J.D.

OPPENHEIM, R., AND C. H. NARAYANAN. 1968. Experimental studies on hatching behavior in the chick. 1. Thoracic spinal gaps. J. Exp. Zool., 168: 387–394.—Unless the connections between the lumbrosacral spinal cord and rostral C.N.S. are complete, chicks cannot perform the rotatory movements necessary to escape from the shell.—A.S.G.

VAN DE KAMP, M. 1968. Fine structural analysis of conjunctival papillae in the chick embryo: a reassessment of morphogenesis and developmental significance. J. Exp. Zool., 169: 447–462.—Light and electron microscopy studies show development of the collagenous fibrous strands extending from the papillae to the pre-ossicular plate mesenchyme during stages 2 and 3. Degeneration of papillae begins locally in stages 3 and 4 and spreads in stage 5. These observations are discussed in relationship to the known dependence of scleral ossicle development on the presence of papillae.—A.S.G.

BEHAVIOR

ALBRECHT, H., AND W. WICKLER. 1968. Freilandbeobachtungen zur "Begrussungszeremonie" des Schmuckbartvogels *Trachyphonus d'arnaudii* (Prevost u. Des Murs). J. Ornithol., 109: 255–263.—Analysis of duet singing and other social behavior of barbets (Capitonidae). (English summary.)—H.C.M.

DRURY, W. H., JR., AND W. J. SMITH. 1968. Defense of feeding areas by adult Herring Gulls and intrusion by young. Evolution, 22: 193–201.—Observations of behavioral interactions among *Larus argentatus* on their postbreeding feeding grounds. Food was solicited from adults, which defended feeding areas, by their own young as well as by other immature birds. It was not clear why adults permitted immatures, especially young other than their own, to take food on their defended areas.—J.D.R.

FICKEN, M. S., AND R. W. FICKEN. 1968. Territorial relationships of Blue-winged Warblers, Golden-winged Warblers, and their hybrids. Wilson Bull., 80: 442–451.

FICKEN, M. S., AND R. W. FICKEN. 1969. Responses of Blue-winged Warblers and Golden-winged Warblers to their own and the other species' song. Wilson Bull., 81: 69–74.

FRANKS, E. C. 1969. Behavior of a Ruby-throated Hummingbird in a room. Wilson Bull., 81: 101–102.

GOTTLIEB, G. 1968. Species recognition in ground-nesting and hole-nesting ducklings. Ecology, 49: 87–95.—The importance of species-typical maternal auditory and visual stimulation in the development of species identification during the early postnatal phase in Wood Ducks (hole nesters) and Mallards (ground nesters). In both species auditory stimulation plays a more potent role than visual stimulation, but the call and visual replica of the parent presented together induced the strongest following response.—H.W.K.

GWINNER, E. 1968. Circannuale Periodik des jahreszeitlichen Funktionswandels bei Zugvögeln. Untersuchungen am Fitis (*Phylloscopus trochilus*) und am Waldlaubsänger (*P. sibilatrix*). J. Ornithol. 109: 70–95.—Hand-reared Willow and Wood Warblers caught as juveniles exhibit "an innate, endogenous mechanism that allows temporal orientation during the year" even when maintained at a 12:12-hour light-dark regime and at constant temperature. Migratory restlessness and molts occurred at approximately the normal times, with individual variance largely a function of the differences in hatching dates of the birds. Both species normally winter near the equator. (English summary.)—H.C.M.

HARVEY, J. M., B. C. LIEFF, C. D. MACINNES, AND J. P. PREVETT. 1968. Observations on behavior of Sandhill Cranes. Wilson Bull., 80: 421–425.

HORWICH, R. H. 1969. Behavioral ontogeny of the Mockingbird. Wilson Bull., 81: 87–93.

JOHNSON, R. A. 1969. Hatching behavior of the Bobwhite. Wilson Bull., 81: 79–86.

KROODSMA, R. L. 1968. "Ploughing" for fish by the Greater Yellowlegs. Wilson Bull., 80: 491–493.

LAMBERT, K. 1967. Beobachtungen zum Zug und Winterquartier der Schwalbenmöwe (*Xema sabini*) im östlichen Atlantik. Vogelwarte, 24: 99–106.—Migratory and other behavior of the Sabine's Gull on a major wintering area, the Benguela current, off southwest Africa. (English summary.)—H.C.M.

LEMON, R. E. 1968. Coordinated singing by Black-crested Titmice. Canadian J. Zool., 46: 1163–1167.—Tape recordings made in Texas reveal neighboring *Parus atricristatus* share a repertoire of several song types. Neighbors frequently sing the same song type and individuals often reply with the pattern played to them from

a tape recorder. The possible function and ecological implications are discussed.—H.W.K.

LEMON, R. E., AND A. HERZOG. 1969. The vocal behavior of Cardinals and Pyrrhuloxias in Texas. Condor, 71: 1–15.

LILL, A. 1969. Allopreening in the dove *Geotrygon montana*. Condor, 71: 72.

MCNICHOLL, M. 1968. Vocalization in the White Pelican. Blue Jay, 26: 124–125.

MORSE, D. H. 1969. Distraction display of a pair of Black-throated Green Warblers. Wilson Bull., 81: 106–107.

PALMER, W. L. 1969. Time frequency between successive drumming performances of Ruffed Grouse. Wilson Bull., 81: 97–99.

POLEY, D. 1968. Beitrag zum Balzverhalten der Kolibris. J. Ornithol., 109: 37–42. —Courtship of the hummingbird *Amazilia franciae*. (English summary.)—H.C.M.

SCOTT, R. E. 1968. Canada Goose taking over and hatching Mallard's eggs. Brit. Birds, 61: 526.

SHEPPARD, D. H., P. H. KLOPFER, AND H. OELKE. 1968. Habitat selection: Differences in stereotypy between insular and continental birds. Wilson Bull., 80: 452–457.

THORPE, W. H. 1968. Perceptual basis for group organization in social vertebrates, especially birds. Nature, 220: 124–128.—A review of evidence for the use of sounds in individual recognition among social birds and mammals. Sound spectrograms of successive "fish-calls" given by 40 Sandwich Terns (apparently the birds were *not* marked for individual recognition) showed, "each bird had a call measurably distinct from all the others, and the calls issued by any one bird were extraordinarily constant to that bird." Preliminary study suggested that similar individuality exists in some calls of adult Gannets.—W.B.R.

THRELFALL, W. 1968. Atypical behavior of a Green-winged Teal. Wilson Bull., 80: 488.

WHITSON, M. A., AND P. D. WHITSON. 1969. Breeding behavior of the Andean Condor (*Vultur gryphus*). Condor, 71: 73–75.

DISEASES AND PARASITES

BARUS, V., AND O. H. GARRIDO. 1968. Nematodes parasitic in birds of the order Passeriformes in Cuba. Folia Parasitologica (Praha), 15: 147–160.—Reports of 13 species of nematodes from 63 birds of 24 species (446 of 75 species examined; see Fol. Parasit. (Praha), 15: 131–146, for records from the Icteridae) include *Acuaria cordonspinosa* sp. nov. from the White-eyed Vireo and many new host records. —W.B.R.

CLARK, G., AND B. SWINEHART. 1969. Avian haematozoa from the offshore islands of northern Mexico. Bull. Wildl. Dis. Assoc., 5: 111–112.—Blood smears taken from 191 adult and juvenile birds of 39 species (31 genera, 21 families) giving incidence of *Haemoproteus, Leucocytozoan, Trypanosoma, Plasmodium, Hepatozoan,* and microfilaria; 12 species of 10 families were infected.—J.S.M.

CLARK, G. W., M. A. LEE, AND D. E. LIEB. 1968. Avian haematozoa of central Washington. Bull. Wildl. Dis. Assoc., 4: 15–17.—Tabulates incidence of haematozoa from 462 adult birds of 50 species representing 47 genera and 23 families.—J.S.M.

DANZAN, G. 1964. [Helminths of domestic and wild birds in the Mongolian People's Republic.] Trudȳ vses. Inst. Gel'mintol., 11: 44–52.—Lists with their hosts 66 helminths recovered from 343 wild birds of 61 species and some domestic birds. (From Helminthol. Abstr., 37: no. 1657, 1968; in Russian.)—J.S.M.

FERIANC, O., AND M. LICHARD. 1967. Birds in the Triběc and Hronský Inovec Mountains as hosts of ticks. Bull. World Health Org., 36, Suppl. 1: 19–23.—This paper and a following one (Nosek et al.) appear in Supplement 1 of the above listed bulletin,

under "Studies on tick-borne encephalitis." Birds are important in the ecology of ticks in these two mountain ranges in the Triběc region of Central Slovakia, Czechoslovakia. Although the population density of birds is relatively constant, the number of species present and their relative importance change with the seasons. In spring chances of becoming infected by ticks are fairly low and the phoretic relations between birds and ticks are less important than at other seasons. During summer and autumn birds spread ticks to neighboring and distant habitats. A table entitled "Topic and trophic relationships of birds to the environment and to ticks in the region studied" lists the species of birds and ticks, population density and nesting sites of the birds, and infestation status of young and adult birds. The special use of the terms phoretic, topic, and trophic are defined in a footnote.—H.W.K.

GREEN, G. H. 1969. Suspected pox virus infection of a Dunlin. Brit. Birds, 62: 26–27.

HENDRICKS, L. D., R. HARKEMA, AND G. C. MILLER. 1969. Helminths of the crow, *Corvus brachyrhynchos* Brehm, 1822, in North Carolina. Proc. Helminthol. Soc. Washington, 36: 150–152.—Two trematode, 2 cestode, 3 acanthocephalan, and 5 nematode species were recovered from 76 female and 82 male crows. Incidence and average density of each parasite is tabulated; data are compared with previous studies.—J.S.M.

HERMAN, C. M. 1968. Blood parasites of North American Waterfowl. Trans. 33rd North Amer. Wildl. Nat. Res. Conf., 348–359.—A review of current knowledge of blood parasites of waterfowl. (From Wildl. Rev., no. 132, 1968.)—J.S.M.

KIRMSE, P., AND H. LOFTIN. 1969. Avian pox in migrant and native birds in Panama. Bull. Wildl. Dis. Assoc., 5: 103–107.—A table giving incidence of avian pox in 2,556 birds of 16 species from the families Pipridae, Tyrannidae, Turdidae, Parulidae, Thraupidae, and Fringillidae; 180 individuals including all 16 species were infected. —J.S.M.

LEIBOVITZ, L. 1968. Progress report: Duck plague surveillance of American Anseriformes. Bull. Wildl. Dis. Assoc., 4: 87–91.—Tabulates virus isolation from 11 species on Long Island, N.Y.—J.S.M.

MACDONALD, J. W., AND L. W. CORNELIUS. 1969. Salmonellosis in wild birds. Brit. Birds, 62: 28–30.

MONHEIMER, R. 1968. The relationship of Lake Michigan waterbird mortalities to naturally occurring *Clostridium botulinum* Type E toxin. Bull. Wildl. Dis. Assoc., 4: 81–85.—Ring-billed, Herring, and California Gulls and one each of Great Blue Heron, Common Loon, and Horned Grebe were force-fed toxin. Mortality varied with the strain of toxin and host species.—J.S.M.

NOSEK, J., M. LICHARD, AND M. SZTANKAY. 1967. The ecology of ticks in the Triběc and Hronksý Inovec Mountains. Bull. World Health Org., 36, Suppl., 1: 49–59.—Lists the avian and mammalian hosts of adults, larvae, and nymphs of the various species of tick vectors of encephalitis virus in central Slovakia.—H.W.K.

PAVLOV, A. U. 1962. [Trematodes of Ralliformes in the USSR.] Trudy Gel'mintol. Lab. Akad. Nauk SSSR., 12: 61–89.—An annotated list of the 59 species of trematodes known for Ralliformes in the USSR. (From Helminthol. Abstr., 37: no. 1662, 1968; in Russian.)—J.S.M.

PULLIAINEN, E., AND E. TANHUANPÄÄ. 1968. Pluminidal sinus (epidermoid cyst) on the back of a male Hazel Grouse (*Tetrastes bonasia* L.). Ann. Zool. Fennica, 5: 270–272.—A large, yellow, unfeathered cyst on the back of the grouse is thought to be the first ever found on a tetraonid. Investigations showed that it was developmental in origin.—M.D.F.U.

RIZHIKOV, K. M., AND L. A. KOSHKINA. 1962. [Trematode fauna of Anseriformes in the Tuva region.] Trudy Gel'mintol. Lab. Akad. Nauk SSSR., 12: 112–119.—An annotated list, including infection rates for each species, for the 35 trematode species from some 250 anseriforms. (From Helminthol. Abstr., 37: no. 1663, 1968; in Russian.)—J.S.M.

SAMEDOV, G. A. 1967. [Cestodes of Falconiformes in the Lenkoran area of the Azerbaidzhan SSSR.] Dokl. Akad. Nauk azerb. SSR, 23: 56–60.—The 16.7 per cent of 452 falconiform birds of 21 species infected with 8 species of tapeworms include many new records. (From Helminthol. Abstr., 37: no. 2700, 1968; in Azerbaidzhani with Russian summary.)—J.S.M.

SAVAGE, H., AND J. A. DICK. 1969. Fowl pox in Cassin's Sparrow, *Aimophila cassinii*. Condor, 71: 71–72.

ŠKARDA, J. 1964. Helmintofauna některých volně žijících ptáků ČSSR. Sb. vys. ŠK. zeměd. Brně, Rada B, 12: 269–293.—Annotated list of 15 trematode, 2 cestode, 9 nematode, and 2 acanthocephala species found in 112 wild birds, chiefly raptors and waterfowl, from Moravia. (From Helminthol. Abstr., 37: no. 2701, 1968; English summary.)—J.S.M.

SPASSKI, A. A., AND L. P. BOBOVA. 1962. [Hymenolepididae from aquatic birds in Kamchatka.] Trudy Gel'mintol. Lab. Akad. Nauk SSSR., 12: 172–200.—Gives rates of infection and hosts for 24 species of this tapeworm family recovered from more than 1,000 aquatic birds. (From Helminthol. Abstr., 37: no. 1815, 1968; in Russian.)—J.S.M.

THRELFALL, W. 1968. Studies on the helminth parasites of the American Herring Gull (*Larus argentatus* Pont.) in Newfoundland. Canadian J. Zool., 46: 1119–1126.—A total of 35 species of helminths (11 trematodes, 10 cestodes, 11 nematodes, 3 acanthocephala) were found in 410 gulls collected in 1966 and 1967. Adult birds were more heavily parasitized than chicks. The author points out that "the examination of large numbers of one species of wild animal for its helminth parasite burden over a period of time . . . has received little attention in the past." I, for one, hope this remains true, except for species that can afford the losses.—H.W.K.

WILLIAMS, I. C., AND I. NEWTON. 1969. Intestinal helminths of the Bullfinch, *Pyrrhula pyrrhula* (L.) in Southern England. Proc. Helminthol. Soc. Washington, 36: 76–83.—For 1,265 birds of various ages 5.6 per cent contained 3 trematode and 2 cestode species. The incidence, intensity, and pathology of infections for each species are discussed, and incidence and density are tabulated for each parasite with respect to bird age groups. Most infections occur during the first 10 days of life when animal material is normally eaten.—J.S.M.

DISTRIBUTION AND ANNOTATED LISTS

AUSTIN, G. T. 1969. New and additional records of some passerine birds in southern Nevada. Condor, 71: 75–76.

BAILLIE, J. L. 1969. Birds in Ontario-western invaders. Ontario Naturalist, 10: 7, 23–30.—The chronology of the eastward expansion of *Aythya collaris, Hesperiphona vespertina, Spizella pallida, Sturna neglecta, Xanthocephalus xanthocephalus, Podiceps grisegena, Mareca americana, Pelecanus erythrorhynchos, Tyrannus verticalis, Euphagus cyanocephalus,* and *Larus minutus* (accompanying *L. philadelphia*!) in Ontario and neighboring regions.—F.E.L.

BROWN, R. G. B. 1968. Sea birds in Newfoundland and Greenland waters, April–May 1966. Canadian Field-Naturalist, 82: 88–102.—A well-documented report on birds seen during a cruise to the South Labrador Sea, an area lacking previous bird records.—R.W.N.

BUCKLEY, P. A. 1968. An Eared Grebe specimen from coastal Virginia. Wilson Bull., 80: 487.

CALLIN, E. M. 1968. First reports of Eastern Wood Peewee for Saskatchewan. Blue Jay, 26: 139.

CAMPBELL, J. M. 1969. The Canvasback, Common Goldeneye, and Bufflehead in arctic Alaska. Condor, 71: 80.

CAMPBELL, R. W. 1968. Status of breeding Herring Gulls at Bridge Lake, British Columbia from 1933 to 1963. Canadian Field-Naturalist, 82: 217–219.—The most southerly breeding colony in B.C., varying from 15 pairs in 1933 to at least 25 pairs in 1963.—R.W.N.

CAMPBELL, R. W. 1968. Two records of the Ruddy Duck nesting at Vancouver, British Columbia. Canadian Field-Naturalist, 82: 220–221.

CAMPBELL, R. W., AND W. J. ANDERSON. 1968. Mockingbird at Vancouver, British Columbia. Canadian Field-Naturalist, 82: 227.

CHRISTIE, D. S. 1968. Summer occurrence of the Fox Sparrow in New Brunswick. Canadian Field-Naturalist, 82: 54.—Records suggest breeding of the Fox Sparrow and also the Gray-cheeked Thrush, in a small, climatically distinct area of New Brunswick.—R.W.N.

CLAPP, R. B., AND P. W. WOODWARD. 1968. New records of birds from the Hawaiian Leeward Islands. Proc. U.S. Natl. Mus., 124: 39 pp.—Records of 68 species from the Leewards (Nihoa to Kure, including Laysan, Midway, etc.) include 24 new to the Hawaiian Islands or known there only from sight reports. New breeding stations are reported for eight seabirds, all previously known to breed elsewhere in the Leewards. Among vagrants, the prevalence of palaearctic forms (3 ducks, 8 shorebirds, 2 gulls, 4 passerines) is notable.—W.B.R.

DAVENPORT, M., AND J. N. HOLLYER. 1968. Royal Tern in Kent. Brit. Birds, 61: 559–561.—First British record, 28 July 1965.—H.B.

DE LUCCA, C. 1969. A revised check-list of the birds of the Maltese Islands. E. W. Classey Ltd., 353 Hanworth Road, Hampton, Middlesex, England. 99 pp.—A seven-page introduction is followed by an annotated check-list of the 366 species and subspecies of birds known to occur in the islands, and an index, including a section on Maltese names.—J.W.H.

EDDIE, B. 1968. Violet-green Swallow at Regina. Blue Jay, 26: 119.

GARRIDO, O. H., AND F. GARCIA M. 1968. Nuevos reportes de aves para Cuba. Torreia, no. 4 (n.o.): 13 pp.—Six species, of which five were included in earlier mimeographed reports. The new record is an Arctic Tern, the first for the West Indies, collected 20 June 1950 near Matanzas, previously misidentified as a Roseate Tern.—W.B.R.

GOBEIL, R. E. 1968. Unusual records of summer birds on Kent Island, New Brunswick. Canadian Field-Naturalist, 82: 203–209.—An annotated list of 33 species recorded in 1964, with data for other years for certain species.—R.W.N.

GREENWOOD, J. J. D. 1968. Bluethroat nesting in Scotland. Brit. Birds, 61: 524–525.—First recorded British nest.—H.B.

HELLEINER, C. W. 1968. A Short-billed Marsh Wren *Cistothorus platensis* in Nova Scotia. Canadian Field-Naturalist, 82: 152.—First specimen.—R.W.N.

HJALTE, K. 1968. [First sight record for Sweden of the Isabelline Shrike (*Lanius isabellinus*).] Vår Fågelvärld, 27: 327–332.—(English summary.)—L.DK.L.

HÖHN, E. O. 1968. The birds of Chesterfield Inlet, District of Keewatin, N.W.T., Canada. Canadian Field-Naturalist, 82: 244–262.—Annotated list based on the author's observations from 27 May to 22 July 1967, and previous records. Of the 71 species recorded, 22 are known to breed.—R.W.N.

HOOGERWERF, A., AND M. J. TEKKE. 1969. The White-throated Sparrow in the Netherlands—the first record for continental Europe? Bull. Brit. Ornithol. Club, 89: 9–10.—Two *Zonotrichia albicollis* captured on 28 September and 8 October 1967 in western Netherlands appear to be the first from continental Europe.—K.P.A.

HOUSTON, C. S. 1968. Recoveries of Swainson's Hawks banded in Saskatchewan. Blue Jay, 26: 86–87.

HOUSTON, C. S. 1969. Turkey Vulture breeding records in Saskatchewan. Blue Jay, 27: 37–39.

INCLEDON, C. S. L. 1968. Brown Thrasher in Dorset: a species new to Britain and Ireland. Brit. Birds, 61: 550–553.—From 18 November 1966 to 5 February 1967.—H.B.

KAELLGREN, A. 1968. Cattle Egret in the district of Algoma [near Sault Ste. Marie, Ontario]. Canadian Field-Naturalist, 82: 49.

KEITH, S., AND A. TWOMEY. 1968. New distributional records of some east African birds. Ibis, 110: 537–548.—Notes on distribution of and variation in 23 species include descriptions of two pale owls from southeast Kenya, *Otus scops nivosus* and *Bubo africanus tanae* subspp. nov. About half the records are of forms new to east Africa collected in the [no longer] Impenetrable Forest of western Uganda.—W.B.R.

KUMERLOEVE, H. 1967. Zum Vorkommen von Laubsängern (*Phylloscopus*) im östlichen und südlichen Kleinasien. Vogelwarte, 24: 143–145.—*Phylloscopus* warblers in eastern and southern Asia Minor.—H.C.M.

LEMON, E. K. 1968. First nesting record of the Mockingbird in British Columbia. Canadian Field-Naturalist, 82: 146–147.

LIGON, J. D. 1969. Factors influencing breeding range expansion of the Azure Bluebird. Wilson Bull., 81: 104–105.

MACKENZIE, H. N. 1968. A possible Fieldfare observation near Ottawa, Ontario. Canadian Field-Naturalist, 82: 51.

MCNICHOLL, M. 1969. The Knot as a migrant in southern Manitoba. Blue Jay, 27: 28–35.

MERTON, D. V., AND I. A. E. ATKINSON. 1968. Notes on the birds of Coppermine Island, Hen and Chickens Group. Notornis, 15: 100–108.—Description of this 180-acre New Zealand island includes an annotated list of 28 bird species. Reasons for maintaining the island as a reserve are discussed.—G.D.S.

MIRIĆ, D. 1967. Die Eiderente *Somateria m. mollissima* (L.), ein seltener Zugvogel in Jugoslavien. Larus, 19 (1965): 204–211.—In the last 100 years in Yugoslavia, European Eiders have been recorded 20 times, including 17 specimen records. Maps show the localities are concentrated at the southern end of the Danube Valley and in the Adriatic archipelago. Half the records were in the 1950s, presumably because of more observers. The eider is thus considered a rare passage visitor rather than an accidental. This relict route may have been used in times when the Adriatic Sea was more favorable eider habitat. (In Serbocroatian; German summary.)—M.D.F.U.

MOREAU, R. E. 1967. Water-birds over the Sahara. Ibis, 109: 232–259.—Band recoveries and increases in winter in areas south of the Sahara and remote from the sea and the Nile suggest that about 50 species of Palaearctic waterbirds regularly migrate across the desert, some in large numbers. Because much of the waterbird migration originates in eastern Europe, many species probably follow diagonal routes that substantially lengthen the Saharan passage. The low rate of fall-out of waterbirds at oases "shows how extremely well-adapted most of them are to make this journey—one of the most exacting in the world."—W.B.R.

PARMELEE, D. F. 1968. Nesting of the Great Gray Owl in Manitoba. Blue Jay, 26: 120.

RENDAHL, H. 1967. Zur Frage der Zugwege skandinavischer Blaukehlchen. *Luscinia s. svecica* (L.). Vogelwarte, 24: 123–135.—Summarizes the available information on the migratory routes, wintering areas, etc., of Scandinavian Bluethroats.—H.C.M.

SCHÜZ, E. 1967. Verbreitungsgrenzen der Westrasse des Weisstorchs (*C. c. ciconia*). Vogelwarte, 24: 116–122.—The effects of climate, civilization, and other factors on the distribution of the western subspecies of the White Stork.—H.C.M.

SEALY, S. G. 1968. Third record of Scissor-tailed Flycatcher in Alberta. Blue Jay, 26: 82.

SIMKIN, D. W. 1968. Red-throated Loon nesting in northern Ontario. Canadian Field-Naturalist, 82: 49.—First breeding records for the Hudson Bay coast of Ontario, 1962 to 1966.—R.W.N.

SINCOCK, J. L., AND G. E. SWEDBERG. 1969. Rediscovery of the nesting grounds of Newell's Manx Shearwater (*Puffinus puffinus newelli*), with initial observations. Condor, 71: 69–71.

STEVENSON, H. M. 1969. Florida's second summer bird count. Florida Naturalist, 42: 22–23.—Counts taken 25 May to 6 July 1968 for 18 localities. The most abundant bird, based on the counts, was the recent invader of America, the Cattle Egret, with 9,755 individuals; the Red-winged Blackbird was second. The Ringed Turtle Dove, Red-whiskered Bulbul, Java Sparrow, and Blue-gray Tanager are established locally.—E.E.

STIRLING, D. 1968. Sight record of the Scissor-tailed Flycatcher (*Muscivora forficata*) on southern Vancouver Island. Murrelet, 49: 14.

SWARTZ, L. G. 1967. Distribution and movements of birds in the Bering and Chukchi Seas. Pacific Sci., 21: 332–347.—A listing of pelagic observations of 29 species, primarily larids and alcids; maps show the location of all sightings and for some the line of flight and numbers seen. The data show *Uria lomvia* generally feeds farther offshore than *U. aalge*.—J.J.D.

THOMPSON, M. C., AND C. D. HACKMAN. 1968. Birds of the Tokelau Islands. Notornis, 15: 109–117.—Three atolls of the Tokelau Islands (8° to 10° S and 170° to 173° W) were visited from 26 February to 4 March 1965. Reports climate, vegetation, ornithological history, and an annotated list of 20 bird species, along with data from 99 collected specimens.—G.D.S.

TRAUTMAN, M. B., AND T. W. NYE. 1968. An Ohio record of the Magnificent Frigatebird (*Fregata magnificens*). Wilson Bull., 80: 487–488.

WAKELIN, H. 1968. Some notes on the birds of Norfolk Island. Notornis, 15: 156–176.—Annotated list of 44 bird species, with details on several terns, studied on this 3 × 5-mile island 460 miles NNW of North Cape, New Zealand.—G.D.S.

WARBURTON, M. 1968. Lark Bunting in New Jersey. Wilson Bull., 80: 495.

WILSON, M. 1968. New sighting of Band-tailed Pigeon in Alberta. Blue Jay, 26: 181.

WINTERBOTTOM, J. M. 1968. A check list of land and fresh water birds of the Western Cape. Ann. South African Mus., 53: 1–276. Bibliography of the birds of the Western Cape to 31 December 1964. Op. cit.: 277–285.—The first 50 pages of the checklist give a thorough discussion of the climate, habitats, and zoogeography of the Western Cape and of its avifauna; the systematic list that follows gives detailed ranges and breeding records. The ranges are by districts, for which abbreviations are used; these are confusing for foreigners, particularly as no district map is included. A list of references for the checklist, as well as the bibliography which is published separately are available.—M.A.T.

Evolution and Genetics

Harrison, J. M., and J. G. Harrison. 1969. A goose hybrid with the head pattern of the Giant Canada Goose. Bull. Brit. Ornithol. Club, 89: 31–32.—A hybrid between a male *Branta canadensis minima* and a female *B. leucopsis*. The hybrid bore a white bar on the forecrown, a character present in neither parent, but of common occurrence in *B. canadensis maxima*.—K.P.A.

Lane, J. 1969. Hybridism in the Eastern and Mountain Bluebird. Blue Jay, 27: 18–21.

Mead, C. J., J. J. M. Flegg, and C. J. Cox. 1968. A factor inhibiting subspecific differentiation in the Lapwing. Bird Study, 15: 105–106.—Wide dispersal of young birds is believed to be responsible for the lack of racial differentiation in some species of birds. The lack of subspeciation in the Lapwing, *Vanellus vanellus,* some ducks, and possibly also the Ruff, *Philomachus pugnax,* Redwing, *Turdus iliacus,* and Fieldfare, *T. pilaris,* was attributed to continual genetic mixture resulting from wide dispersal of young.—J.D.R.

Morejohn, G. V. 1968. Breakdown of isolation mechanisms in two species of captive Junglefowl (*Gallus gallus* and *Gallus sonneratii*). Evolution, 22: 576–582.—Interspecific hybridization was accomplished only by crossing *G. sonneratii* cocks with *G. gallus* hens and only when the hens were raised in pens adjacent to the *sonneratii* cocks. Hybrids were crossed among themselves and with both parental species but no F_2 birds survived. Apparently courtship behavior and genetic incompatibility are important in limiting interspecific hybridization in the wild.—J.D.R.

Stresemann, E., and B. Stephan. 1968. Über das Remicle. J. Ornithol., 109: 315–321.—A detailed analysis of the remicle. Argues that it is not a reduced primary. (English summary.)—H.C.M.

General Biology

Appert, O. 1968. Zur Brutbiologie der Erdracke *Uratelornis chimaera* Rothschild. J. Ornithol., 109: 264–275.—Observations on the breeding of a rare ground roller (Coraciidae, Brachypteraciinae) of Madagascar. (French summary.)—H.C.M.

Ashmole, N. P. 1968. Body size, prey size, and ecological segregation in five sympatric tropical terns (Aves: Laridae). Syst. Zool., 17: 292–304.—Studies on diet and morphology of *Sterna fuscata, Procelsterna cerulea, Anous stolidus, A. tenuirostris,* and *Gygis alba* on Christmas Island, Pacific Ocean, show that ecological segregation need not indicate competitive exclusion. Suggests that many natural habitats cannot be assumed to contain the greatest number of related species that could coexist if the opportunity to establish themselves arose.—R.W.S.

Austin-Smith, P. J. 1968. Late winter oil pollution in the Bay of Fundy, Nova Scotia. Canadian Field-Naturalist, 82: 145–146.—One or more individuals of 12 species were found dead and a few others species were affected by oil pollution along a 32-mile coastline in late winter of 1968.—R.W.N.

Bartonek, J. C. 1969. Build-up of grit in three pochard species in Manitoba. Wilson Bull., 81: 96–97.

Bjärvall, A. 1969. Unusual cases of re-nesting Mallards. Wilson Bull., 81: 94–96.

Brisbin, I. L., Jr. 1968. A determination of the caloric density and major body components of large birds. Ecology, 49: 792–794.—A procedure is described for determining these values from a relatively small series of random aliquots of the total biomass of large birds.—H.W.K.

Britton, P. L. 1969. Weights of the Pennant-winged Nightjar. Bull. Brit. Ornithol.

Club, 89: 21–24.—Weights of 190 *Macrodipteryx vexillarius* were obtained in northwestern Zambia, March 1966 to December 1967. March birds were heaviest, presumably a result of pre-migratory fattening. Females are heavier than males in September, though a slight difference in weight probably exists at other times as well. The weight of stomach contents was highly variable, but adult males in October had less food in their stomachs than those in September.—K.P.A.

CALLIN, E. M. 1968. Vocalization of the Virginia Rail: a mystery solved. Blue Jay, 26: 75–77.—Seventy-five years after William Brewster first heard a vocalization of an unknown marsh bird, the Virginia Rail was found to be the species in question. Peter P. Kellogg, Arthur A. Allen, Roger Tory Peterson, Oscar M. Root, and Joseph A. Hagar are some of the ornithologists involved in the long search that culminated in the Qu'Appelle River valley in southern Saskatchewan.—R.W.N.

CAMPBELL, R. W. 1968. Alexandrian rat predation on Ancient Murrelet eggs. Murrelet, 49: 38.—On Langara Island, British Columbia, two instances of predation on Ancient Murrelet eggs by *Rattus r. alexandrinus* were noted.—K.P.A.

CAMPBELL, R. W. 1968. Great Blue Heron swimming. Blue Jay, 26: 92.

CHESEMORE, D. L. 1968. Notes on the food habits of Arctic foxes in northern Alaska. Canadian J. Zool., 46: 1127–1130.—Food remains from 17 of 34 fox den sites revealed bird feathers, bones, and egg shells. Of 200 summer scats, 117 contained bird remains. Only 10 of 38 winter scats contained bird remains. Lemmings were primary fox prey, but birds and bird eggs formed an important part of the summer diet. Unfortunately none of the bird remains were identified in this study. —H.W.K.

CROSSIN, R. S. 1967. The breeding biology of the Tufted Jay. Proc. Western Found. Vert. Zool., 1: 265–299.—*Cyanocorax dickeyi,* a highly social species, occurs in a small area of the Sierra Madre Occidental of western Mexico. It is uncommon in its limited range, and primarily restricted to the slopes and stream courses of barrancas that dissect the mountains. Here it forages among the epiphytes and fruiting trees of the gallery forest. Individual flocks maintain themselves as units throughout the breeding season and probably throughout the year. Only one pair mates in a flock, all members work toward the success of the single nest, and the fledglings join the parental flock. Color frontispiece, by Don Eckelberry.—F.E.L.

FREDRIKSON, K. A. 1968. Observations on parasitic nesting in the Tufted Duck (*Aythya fuligula*). Ornis Fennica, 45: 127–130.—A 10-year study in a coastal archipelago. In the study area 118 stray eggs occurred singly or in irregular groups, and in 20 of 44 nests studied signs indicated that more than one female laid (different color of part of the clutch, abnormally large clutch size). Partial nest parasitism is thus verified. It is surmised that the parasitic hens laid darker eggs than the normal ones, and that perhaps a genetic basis exists for the parasitic tendencies of this local population, owing to the species' strong philopatry.—M.D.F.U.

GASHWILER, J. S., AND A. L. WARD. 1968. Oregon Junco foods in coniferous forests. Murrelet, 49: 29–36.—Gizzard contents of 262 birds indicate the average annual diet contains about half seeds and half insects. Seeds of Douglas fir are most important, and their use in the diet varies markedly with the abundance of the seed crop. Of the insects taken, Formicidae, Curculionidae, Carabidae and Cicadellidae comprised the greatest volume.—K.P.A.

HAMERSTROM, F. 1968. Ageing and sexing Harriers. IBBA News, 40: 43–44.

HARRISON, C. J. O. 1968. The nest and eggs of *Arachnothera chrysogenys*. Bull. Brit. Ornithol. Club, 88: 138–139.—As with all known congeners, the nest is attached to the underside of a large leaf. The nest chamber is a secondary cup-nest

built within the outer structure. The two eggs are white, with a wreath of hair-like black lines and a few scattered black spots at the larger end. Both the nest and eggs closely resemble those of *A. robusta*.—K.P.A.

HARRISON, C. J. O. 1969. A non-melanic variant Bullfinch. Bull. Brit. Ornithol. Club, 89: 20–21.—Describes a male showing nonmelanic schizochroism.—K.P.A.

HATCH, D. R. M. 1968. Golden Eagle hunting tactics. Blue Jay, 26: 78–80.—Detailed description of cooperative or group hunting of red fox by two and four birds wintering in extreme southwestern Manitoba.—R.W.N.

HATCH, D. R. M. 1968. Slate-colored Junco nesting in Barn Swallow nest; Brown-headed Cowbird parasitism on junco and Barn Swallow. Blue Jay, 26: 190–191.

HEIDELBAUER, F. A. 1968. Cliff-nesting Common Merganser at Uranium City. Blue Jay, 26: 88–89.

HODSON, K. 1968. Porcupine in Ferruginous Hawk's nest. Blue Jay, 26: 180–181.—Evidence suggested adults tried to feed a porcupine to nestlings; 24 quills were removed from the three young.—R.W.N.

HÖGLUND, N. H., AND E. LANSGREN. 1968. The Great Grey Owl and its prey in Sweden. Viltrevy, 5: 363–421.—Food habits and life history observations, especially breeding biology, of *Strix nebulosa lapponica* based on 19 pairs nesting in northern Sweden. Stomach contents of 10 owls taken during the nonbreeding season and about 450 food pellets are analyzed. None of the 19 pairs built a nest, but used those of Goshawks or buteonids; two pairs accepted artificial nests. The study substantiates differential hatching and weight, varying clutch size, and other accompanying phenomena known for other boreal owls and falconiforms living on the varying supply of small rodents. Young leave the nest before they are ready to fly, perhaps because of discomfort from heat; they have been seen seeking shade during mid-day. Food seems to be the same throughout the year. Pairs in the same general area feed largely on the same prey species, and the year-to-year differences reflect fluctuation in the availability of prey. Nearly 94 per cent of the food was made up of small ground rodents, mostly *Microtus,* and almost 5 per cent of shrews. Birds and squirrels were fed upon in small amounts. "Irruptions" are probably "starvation migrations" as individuals shot outside the breeding area are usually underweight.—M.D.F.U.

HÖHN, E. O. 1968. Reaction of a Semipalmated Plover to covering of its eggs with sand and seaweed respectively. Canadian Field-Naturalist, 82: 228–230.—*Charadrius semipalmatus* readily located and uncovered their eggs when experimentally covered with sand but failed to uncover eggs that were covered with seaweed.—R.W.N.

HOLCOMB, L. C. 1969. Growth and calculation of age in the American Goldfinch. Nebraska Bird Rev., 37: 3–15.—Details of external growth characteristics of large numbers of nestling *Spinus tristis* in Ohio. Several parameters measured seem quite subjective.—R.W.S.

HOLCOMB, L. C., AND G. TWIEST. 1968. Red-winged Blackbird nestling growth compared to adult size and differential development of structures. Ohio J. Sci., 68: 277–284.—Details of external growth of *Agelaius phoeniceus* nestlings are compared to adult parameters.—R.W.S.

HOLDGATE, M. W., P. J. TILBROOK, AND R. W. VAUGHAN. 1968. The biology of Bouvetøya. Brit. Antarctic Surv. Bull., no. 15: 1–7.—Bouvet Island, a Norwegian possession, is the southernmost volcanic island of the Mid-Atlantic Ridge. Lichens and mosses are the only terrestrial plants. Breeding birds include 3 penguins, *Pygoscelis adeliae, P. antarctica, Eudyptes chrysolophus,* 3 Procellariiformes, *Daption capensis, Fulmarus glacialoides, Pagodroma nivea,* 2 Laridae, *Catharacta skua, Sterna*

vittata, and possibly *Fregetta tropica* and *Oceanites oceanicus.* Invertebrates, pinnipeds, and cetaceans are discussed also.—F.E.L.

HUBBARD, J. P., AND C. L. HUBBARD. 1969. Meadowlarks feeding on road-kills. Wilson Bull., 81: 107–108.

INGOLFSSON, A. 1969. Lesser Black-backed Gulls with white wing-patches in Iceland. Brit. Birds, 62: 31–32.

JEFFERIES, D. J. 1967. The delay in ovulation produced by pp'-DDT and its possible significance in the field. Ibis, 109: 266–272.—In virgin female Bengalese Finches (*Lonchura striata*) kept for 6 weeks on diets containing DDT (8 dose levels, 75–1,200 ppm), the number of days from pairing to laying the first egg increased directly with increases in the mean daily intake of DDT. From this study and earlier work showing inhibition of testis growth in cockerels, it appears that DDT acts on the pituitary or hypothalamus to retard gonad development. The resulting delay could put the reproductive efforts of sublethally contaminated wild birds out of phase with optimum food supplies.—J.C.O.

JONES, E. T. 1968. Some observations of Long-tailed Jaegers in early and late nesting seasons. Blue Jay, 26: 140–141.

KLÖS, U. 1968. Beitrag zur Brutbiologie von Pelikanen in Gefangenschaft. J. Ornithol., 109: 172–184.—Data on the behavior and breeding biology of six species of pelicans in captivity, including information on several interspecies pairs.—H.C.M.

LAHAM, Q. N. 1967. Report on aircraft turbine engine bird strike investigations. NRC Assoc. Comm. on bird hazards to aircraft. Field note 43. 27 pp. + plates.—A preliminary report on the use of microscopic examination and amino acid composition analysis to identify the remains of birds involved in airplane accidents.—A.H.B.

MCBEE, R. H., AND G. C. WEST. 1969. Cecal fermentation in the Willow Ptarmigan. Condor, 71: 54–58.

MCCOSHEN, J. A., AND R. P. THOMPSON. 1968. A study of clicking and its source in some avian species. Canadian J. Zool., 46: 169–172.—A study of 12 species from the egg through the 5th day after hatching. Clicking sounds were found to be qualitatively the same for all birds examined although frequency and intensity varied.—H.W.K.

MCCOSHEN, J. A., AND R. P. THOMPSON. 1968. A study of the effect of egg separation on hatching time and of the source of clicking sounds in the embryo of the domestic chicken. Canadian J. Zool., 46: 243–248.—The phenomenon of synchronized hatching was studied in a two-part investigation using white leghorns and Rhode Island red embryos and chicks. Separated eggs were more variable in hatching time than contacting eggs.—H.W.K.

MILLER, W. 1968. Collective parental care by Tree Swallows. Blue Jay, 26: 80.

MILLER, W. 1968. Predation of Bluebirds by an eastern chipmunk. Blue Jay, 26: 145.

MOORE, N. W., AND W. P. EVANS, EDITORS. 1968. Some safety aspects of pesticides in the countryside. Proc. of a conference of the Joint Assoc. of Brit. Manufacturers of Agr. Chem./Wildl. Educ. and Commun. Comm., Alembic House, 93 Albert Embankment, London, S.E. 1. Price 25/-.—On 20 November 1967 at the British Museum various manufacturers, distributers, and users of pesticides met with conservationists to discuss 1) the concept that agriculture and wildlife can coexist and 2) that by working together there is some hope for a future coexistence in an environment worth living in. This report presents a "Code of conduct" adopted by the committee for the understanding of and sane use of pesticides, as well as 14

excellent summary papers on various aspects of the pesticide situation. These reports and their bibliographies thoroughly review to date the development, testing, use, and effects of pesticides. A similar symposium with resultant action could well be held on an international basis.—R.W.S.

NAVAS, J. R. 1967. El Surucuá común. Hornero, 10: 291.—Short summary of distribution and natural history of *Trogon surrucura,* commenting on color plate by Don Eckelberry. (In Spanish.)—E.E.

NERO, R. W. 1968. An attempt by a Ruffed Grouse to eat a mouse. Blue Jay, 26: 189–190.

ORING, L. W. 1969. Summer biology of the Gadwall at Delta, Manitoba. Wilson Bull., 81: 44–54.

PENNYCUICK, C. J. 1968. A wind-tunnel study of gliding flight in the pigeon *Columba livia.* J. Exp. Biol., 49: 509–526.—Lift and drag were determined for pigeons gliding in a tilting wind-tunnel. Total drag was resolved into body, foot (the feet may be lowered and used as control mechanisms) induced, and wing profile drag. As gliding speed increases the wing span and area and the aspect ratio are reduced. The resulting increase in induced drag is more than offset by a large reduction in wing profile drag.—A.S.G.

PENNYCUICK, C. J. 1968. Power requirements for horizontal flight in the pigeon *Columba livia.* J. Exp. Biol., 49: 527–555.—Helicopter theory is applied to measurements obtained in wind-tunnel experiments to calculate power required to fly at any given speed. Estimates are made concerning several performance levels. The relationship of these levels to size of animal is discussed. Performance estimates for the pigeon and Ruby-throated Hummingbird are "deplorable" by engineering standards, but are consistent with known abilities of these birds. An interesting and provocative paper.—A.S.G.

PIECHOCKI, R. 1968. Die Grossgefieder-Mauser des Steinkauzes (*Athene noctua*). J. Ornithol., 109: 30–36.—Great detail on sequence and timing of molt of the flight feathers of the Little Owl. (English summary.)—H.C.M.

REA, A. M. 1967. Age determination of Corvidae, Part 1: Common Crow. Western Bird Bander, 42: 44–45.

REA, A. M. 1968. Age, sex, and race determination of Yellow-bellied Sapsuckers. Western Bird Bander, 43: 46–47.

REA, A. M., AND D. KANTEENA. 1968. Age determination of Corvidae, Part 2: Common and White-necked Ravens. Western Bird Bander, 43: 6–9.

RECHER, H. F., AND J. A. RECHER. 1968. Comments on the escape of prey from avian predators. Ecology, 49: 560–562.—Observations on foraging herons indicate that only a small number of prey organisms manage to escape after being seized. Prey that do escape belong mostly to a few genera that have elaborate postcapture escape behavior or possess physical structures that interfere with swallowing and tend to prolong the interval between capture and swallowing. (From authors' abstract.)—H.W.K.

RICKLEFS, R. E. 1968. Patterns of growth in birds. Ibis, 110: 419–451.—Presents in tabular form mathematical descriptions of growth curves for 45 nonpasserine and 60 passerine species, followed by examination of intraspecific and interspecific variability in growth patterns. Adaptive significance of intraspecific growth patterns is difficult to evaluate, because inherent changes can't be distinguished from nutritional effects. Controlled comparative studies are needed. Interspecific rates of growth correlate with adult body weight, nesting success, and brood size. Young of aerial feeders have relatively higher growth curve asymptotes. Growth diversities

result: 1, as a by-product of selection acting on aspects of the life history other than development; 2, from selection acting on survival of offspring during the growth period; and, 3, from adjustments made to balance energy requirements of the family group. In the latter case, Ricklefs hypothesizes that growth is slowed: 1, in species unable to feed even one young sufficiently to maintain a normal growth rate; and, 2, in small-brooded species where brood size is not readily adjustable to the feeding capacities of adults.—J.C.O.

RICKLEFS, R. E., AND R. R. HAINSWORTH. 1969. Temperature regulation in nestling Cactus Wrens: the nest environment. Condor, 71: 32–37.

ROBERTS, J. S. 1968. Leg-color in juvenal Piping Plover. Bull. Oklahoma Ornithol. Soc., 1: 24.—The tarsi and toes of a juvenile *Charadrius melodus* were bright orange. —A.C.V.V.

ROGERS, A. E. F. 1968. Herring Gull taking small passerine at sea. Brit. Birds, 61: 467.

ROOT, R. B. 1969. The behavior and reproductive success of the Blue-gray Gnatcatcher. Condor, 71: 16–31.

SAIZA, A. 1968. Age determination of Corvidae, Part 3. Juvenals. Western Bird Bander, 43: 20–23.—Common Crow and White-necked Raven.—A.C.V.V.

SAMUEL, D. E. 1969. House Sparrow occupancy of Cliff Swallow nests. Wilson Bull., 81: 103–104.

SEALY, S. G. 1969. Incubation and nestling periods of the Horned Puffin. Condor, 71: 81.

SEIDENSTICKER, J. C., IV. 1968. Notes on the food habits of the Great Horned Owl in Montana. Murrelet, 49: 1–3.—Pellet examination showed that mammals made up 93 per cent of the prey items of *Bubo virginianus*. Birds and fish comprised the remainder of the diet.—A.C.V.V.

SHCHEPANEK, M. J. 1968. Flying duck transports young on its back. Canadian Field-Naturalist, 82: 223.—A hen, identified as either Mallard or Black Duck, transported a brood of four young, one at a time, about 250 yards from a small pond to a lake.—R.W.N.

SIEGFRIED, W. R. 1968. Temperature variation in the Cattle Egert. Ostrich, 39: 150–154.—There is a regular daily temperature cycle from a mean daytime 40.1°C to a mean nighttime 37.1°C.—M.A.T.

SIMEONOW, S. D. 1968. Über die Nistweise der Rötelschwalbe, *Hirundo daurica rufula* (Temminck), in Bulgarien. J. Ornithol., 109: 57–61.—Orientation, substrate, and location of nests of the Red-rumped Swallow in Bulgaria.—H.C.M.

SINDELAR, C. R. 1969. Barred Owl feeds on crow. Wilson Bull., 81: 100–101.

SKUTCH, A. F. 1969. A study of the Rufous-fronted Thornbird and associated birds. Part 1, Life history of the Rufous-fronted Thornbird. Wilson Bull., 81: 5–43.

SPELLERBERG, I. F. 1969. Incubation temperature and thermoregulation in the McCormick Skua. Condor, 71: 59–67.

STIRLING, I. 1969. An albinistic Adélie Penguin. Condor, 71: 78.

STRESEMANN, E., AND V. STRESEMANN. 1968. Die Mauser von *Anthus campestris* und *Anthus richardi*. J. Ornithol., 109: 17–21.—At least some Tawny and Richard's Pipits interrupt molt of the flight feathers for the fall migration. Richard's Pipit exhibits a nearly unique tendency among passerines to depart from the descending sequence of primary molt. (English summary.)—H.C.M.

STRESEMANN, E., AND V. STRESEMANN. 1968. Winterquartier und Mauser der Dorngrasmücke, *Sylvia communis*. J. Ornithol., 109: 303–314.—European populations of the Whitethroat undergo the postnuptial molt before fall migration while Asian populations molt in the wintering area in Africa. (English summary.)—H.C.M.

SYMONS, R. D. 1968. Atypical nesting of Bonaparte's Gull in Saskatchewan. Blue Jay, 26: 70–74.—In at least four seasons from 1932 to 1956 a small colony has nested on clumps of dead bulrushes in a boggy marsh in central Saskatchewan. This well-documented report refers to photographs, specimens, and a habitat display in the provincial museum at Regina, based on this unusual nesting situation.—R.W.N.

SZLIVKA, L. 1967. Neuere Angaben über die Türkentaube, *Streptopelia decaocto decaocto* (Friv.) Larus, 19(1965): 107–132.—Notes on roosting habits, territorial behavior, and food habits of the Indian turtle dove in the southern part of the Danube Plain. Birds that fed in fields outside the breeding area were territorial; others that had a rich food supply near the nests did not defend feeding territories. Stomach contents of 240 doves indicate individual birds specialize in taking only one kind of food at any one feeding locality. Winter birds averaged larger and heavier. (In Serbo-Croatian; Germany summary.)—M.D.F.U.

TEMPLE, S. A. 1969. A case of Turkey Vulture piracy on Great Blue Herons. Wilson Bull., 81: 94.

VERMEER, K. 1969. Egg measurements of California and Ring-billed Gull eggs at Miquelon Lake, Alberta, in 1965. Wilson Bull., 81: 102–103.

VERMEER, K., AND B. SWITZER. 1968. Road kills of birds and mammals in southeastern Alberta. Blue Jay, 26: 93–94.

WALKINSHAW, L. H. 1968. Observations of summering and migrating wood warblers in Muskegon County. Jack-Pine Warbler, 46: 42–56.—A summary of 11 years banding experience with 30 species and one hybrid parulid in Michigan includes weights, wing and tail measurements, dates of occurrence, and some nesting information.—F.E.L.

WALTER, H. 1968. Zur Abhängigkeit des Eleonorenfalken (*Falco eleonorae*) vom mediterranen Vogelzug. J. Ornithol., 109: 323–365.—Observations of two breeding colonies of Eleonora's Falcons, one near Crete and one off the coast of Morocco. The birds feed on insects except during passerine-migration seasons when small birds taken at sea predominate in the diet. The falcon's breeding season coincides with small bird migration through the area. (English summary.)—H.C.M.

WARNCKE, K. 1968. Zur Brutbiologie der Alpendohle. J. Ornithol., 109: 300–302.—Information on the breeding of the Alpine Chough, *Pyrrhocorax graculus*.—H.C.M.

WELLER, M. W. 1967. Notes on some marsh birds of Cape San Antonio, Argentina. Ibis, 109: 391–411.—Notes on 50 species stress seasonal occurrence, nesting, and comparisons with birds of temperate North American marshes. *Ixobrychus involucris* is very like a Least Bittern but lays yellow eggs; behavior of Southern Screamers (*Chauna torquata*) reminded Weller of Canada Geese; the Rosy-billed Pochard (*Metopiana peposaca*) is so similar to a Redhead "its generic status needs reevaluation." Some competition occurs among the three breeding coots (*Fulica armillata, F. leucoptera,* and *F. rufifrons*) but all are common. Icterids are less conspicuous than in northern marshes because they do not nest colonially.—W.B.R.

WILEY, J. W. 1969. A case of Great Horned Owl predation on a porcupine. Condor, 71: 73.

WILSON, A. E. 1968. Rusty Blackbird attacks sparrows. Blue Jay, 26: 123.

YOUNG, H. 1968. A consideration of insecticide effects on hypothetical avian populations. Ecology, 49: 991–994.—Models indicate that species respond in variable fashion to insecticide exposure, dependent upon their breeding patterns and longevity. Direct mortality has the most drastic effect on long-lived slow-breeding forms (Bald Eagle), and the least effect on short-lived rapidly breeding forms

(American Robin). If sterility resulted from insecticide exposure, then it would exert the most drastic effect on the short-lived rapidly breeding forms. Species intermediate in respect to breeding rate and longevity are intermediate in their responses to insecticide-caused mortality or sterility. This is an extremely valuable and important contribution to the analysis and understanding of insidious environmental pollution by pesticides and it should give pause to those proponents of intensive pesticide use who continually demand to see proof of pesticide damage in the form of dead bodies.—H.W.K.

Management and Conservation

Caithness, T. A. 1968. Poisoning gulls with alpha-chloralose near a New Zealand airfield. J. Wildl. Mgmt., 32: 279–286.—In late 1965, following a 5-month period when gulls were involved in 12 incidents with aircraft, alpha-chloralose was applied to bread (200 mg/bait) and more than 85 per cent of the *Larus dominicanus* breeding population near Hawke Bay Airfield, Napier, was destroyed. In the following 18 months, only four incidents with aircraft were recorded. A well-planned and executed study.—R.W.S.

Dyer, M. I. 1968. Blackbird and Starling research program, 1964–1968. Ontario Dept. Agr. and Food, p. 29.—Field work on population dynamics and crop damage. —A.H.B.

Prestt, I., D. J. Jefferies, and J. W. MacDonald. 1968. Post-mortem examination of four Rough-legged Buzzards. Brit. Birds, 61: 457–465.—Three apparently died through feeding on birds poisoned by dieldrin-dressed seed.—H.B.

Watson, A., and D. Jenkins. 1968. Experiments on population control by territorial behaviour in Red Grouse. J. Anim. Ecol., 37: 595–614.—Results of 13 experiments over 6 years, involving removal of *Lagopus lagopus scotica* from certain study areas at every season, showed that the breeding population size was determined by territorial behavior. Nonterritorial birds (most young birds) took territories and bred only after vacancies occurred. Territorial behavior of young cocks was delayed if old-established birds were present.—H.W.K.

Young, C. M. 1968. Island nesting of ducks in northern Ontario. Canadian Field-Naturalist, 82: 209–212.—Mallards and Black Ducks apparently nest more commonly on islands than on the mainland. Experiments show that both species readily accept artificial nesting rafts where natural islands are lacking. The total production of ducks in the study area is believed to have increased as a result of a shift from mainland nesting to using nest boxes on rafts. Mammalian predation is thought to be the primary factor involved in restricting productivity and nesting on the mainland.—R.W.N.

Zeleny, L. 1968. Bluebird nesting box temperatures. Atlantic Naturalist, 23: 214–218.—Internal temperatures of 32 nest boxes of *Sialia sialis* were measured. Those constructed of thick wood, with proper ventilation and light exterior colors had least temperature rise internally. Metal and plastic boxes were especially hot inside. Excessive heat is considered dangerous to embryos and chicks.—S.C.W.

Migration and Orientation

Bourne, W. R. P. 1967. Long-distance vagrancy in petrels. Ibis, 109: 141–167.—This useful summary of the more notable vagrancies of about 40 species of albatrosses, petrels, and storm-petrels comments on numerous North American records. "Most acceptable records of vagrant sea-birds can be explained either as a result of movement with recognized wind or current systems, or the malfunctioning of

recognized migrations." Records of vagrants near ports and records involving sedentary species are suspect.—W.B.R.

DE VRIES, R. 1967. FORTRAN-Programm zum Berechnen von Entfernung und Kurswinkel für Nah- und Fernfunde beringter Vögel. Vogelwarte, 24: 110–115.—A Fortran program for determining distance and direction between banding and recovery localities. (English summary.)—H.C.M.

HOUSTON, C. S. 1968. Recoveries of Bronzed [sic] Grackles banded in Saskatchewan. Blue Jay, 26: 136–138.

HOUSTON, C. S. 1968. Recoveries of Robins banded in Saskatchewan. Blue Jay, 26: 182–184.

LACK, D. 1968. Bird migration and natural selection. Oikos, 19: 1–9.—Several features of migration (including partial migration, irruptive movements, etc.) are explained in terms of natural selection and competition for food in wintering areas as well as on breeding grounds. Lack stresses the speculative nature of this approach when compared to certain quantitative or experimental studies which are descriptive (radar studies, band recoveries), or concerned with proximate adaptations (timing, fat metabolism, orientation, etc.), but feels that speculative analyses of evolutionary and ecological background are important for full interpretation of the experimental studies.—H.W.K.

LEMMETYINEN, E. 1968. The migration routes of Finnish Common and Arctic Terns (*Sterna hirundo* and *S. paradisaea*) in Scandinavia. Ornis Fennica, 45: 114–124.—Though young terns of both species show premigratory flights in many directions (dispersal flights to the reviewer) the main fall departure routes are significantly different in that the Arctic Tern crosses the Baltic and the Scandinavian mountains toward the northwest and then follows the coastline of Norway toward the southwest. Such deviations from the shortest route are usually explained as the persistence of traditional immigration routes. As the Baltic coasts provide feeding conditions comparable with the Atlantic coast the author thinks that the present route probably does not reflect an ancestral immigration route that existed in postglacial times. Consideration of faunistic data from the Baltic coastal nesting areas indicates a population increase after a decline, and it is surmized that this increase was facilitated by immigration through extension of inland breeding localities from Norway toward Finland late in the last century, or even as late as the past two decades. This would then explain the detour of the migration route: there has not been enough time yet to reroute the migration of the colonizer terns. More ringing data are needed to corroborate this theory.—M.D.F.U.

NISBET, I. C. T. 1968. Weights of birds caught at night at a Malayan radio tower. Ibis, 110: 352–354.—Fall migrants, 79 individuals of 13 palaearctic species, weighed markedly less than birds of the same species wintering in Malaya.—W.B.R.

PORTER, R., AND I. WILLIS. 1968. The autumn migration of soaring birds at the Bosphorus. Ibis, 110: 520–536.—In 114 all-day watches from a hill opposite Istanbul, 14 July–8 November 1969, four observers counted 250,783 soaring migrants (White and Black Storks, 29 raptors, Common Crane) as flights crossed the west end of the Bosphorus. The White Stork, unknown here as a fall migrant a century ago, was the most common species, totalling 207,000, mainly in the last half of August. Most common raptors were: *Buteo buteo,* c. 13,000; Honey Buzzard, 9,000; Sparrowhawk (*Accipiter nisus, A. brevipes*), 5,200; Spotted Eagles (*Aquila clanga, A. pomarina*), 4,300; and Black Kite, 2,150. The continuing decline of vultures (*Neophron, Gyps fulvus, Aegypius*) and kites (Milvus) probably reflects improved sanitation in eastern Europe. Differences in coverage preclude close comparisons

with data from other recent fall counts at the Bosphorus, the authors suggesting that at least four stations would be needed for "coverage sufficient to detect annual population fluctuations."—W.B.R.

ROWAN, M. K. 1968. The origins of European Swallows "wintering" in South Africa. Ostrich, 39: 76–84.—Swallows, *Hirundo rustica,* ringed in South Africa and recovered on their northern breeding grounds, come from a wide area, the British Isles east to the USSR at 90° E. Populations are mixed on the wintering grounds, but the major populations in South Africa are from the British Isles and the USSR between 30° and 40° E. Two birds found breeding 34 days after ringing suggest migration speeds of 200 miles per day.—M.A.T.

SERVENTY, D. L. 1968. Wanderings of the Blue-winged Pitta to Australia. Bull. Brit. Ornithol. Club, 88: 160–162.—Two old specimens of *Pitta moluccensis* (= *Cervinipitta kimberleyensis*) from Western Australia are reinterpreted as migrants that strayed south of the Malay Peninsula, the normal southern limit of the species' migratory movement.—K.P.A.

SKINNER, N. J. 1968. Two-stage northerly local migration of the Grey-headed Kingfisher, *Halcyon leucocephala.* Nigerian Ornithol. Soc. Bull., 5: 88–91.—The Grey-headed Kingfisher spends November to February (dry season) in forest clearings in southern Nigeria, 4°–7° N, and migrates to the northern Guinea woodland and savannah, 8°–11.5° N, for the March to June breeding season. It then migrates northward to spend June to October (dry season) in the dry subsaharan savannah, 12°–15° N. The return to southern Nigeria is fairly rapid and occurs in October to November in a single migration.—R.B.P.

PHYSIOLOGY

BARNAWELL, E. B. 1968. Hormonal influence on salivary glands of Chimney Swift (*Chaetura pelagica*) in organ culture. J. Exp. Zool., 169: 161–172.—Observations while removing the glands indicated that females may secrete longer than males. Insulin plus corticosterone or glucagon promoted secretory activity *in vitro.* Prolactin, crude extracts of the bird's pituitary, and testosterone did not affect secretion under the experimental conditions.—A.S.G.

BUSH, F. M., AND C. A. SIEBERT. 1968. Immunoelectrophoresis of egg and plasma proteins during development of the House Sparrow, *Passer domesticus.* J. Embryol. Exp. Morphol., 20: 295–305.—Documentation of changes, both quantitative and qualitative, that occur in embryogenesis. A definite sequence of appearance of proteins occurs in embryos, then the total protein doubles between hatching and fledging. —A.H.B.

BUTTERFIELD, W. K., AND A. H. DARDIRI. 1969. Serologic and immunologic response of wild waterfowl vaccinated with attenuated duck plague virus. Bull. Wildl. Dis. Assoc., 5: 99–102.—Herring Gulls, Canada Geese, and Mallards were orally vaccinated and subsequently challenged with inoculated virulent virus. Herring Gulls were unaffected by either virus but the immunity challenge affected the geese and Mallards.—J.S.M.

CHANDRA-BOSE, D. A., AND J. C. GEORGE. 1967. Effect of cold stress on the glycogen content of the pectoralis and the liver of the pigeon. Pavo, 5: 9–12.—Pigeons defeathered in the region of the pectoralis muscles showed reduction in glycogen content indicating that glycogen is used as fuel for thermogenesis.—R.W.S.

DAWSON, W. R., AND C. D. FISHER. 1969. Responses to temperature by the Spotted Nightjar (*Eurostopodus guttatus*). Condor, 71: 49–53.

FARRAR, W. W., AND F. M. BUSH. 1969. Isozymic structure and pyruvate inhibition of lactate dehydrogenase of ventricle, pectoralis muscle and cerebrum during morpho-

genesis of the House Sparrow, *Passer domesticus*. Comp. Biochem. Physiol., 29: 89–108.—Patterns of tissue enzyme development are specific and unlike those reported for other species. Studies on catalytic properties also show tissue specificity, but are in agreement with values from other species.—A.H.B.

GEORGE, J. C., AND D. A. CHANDRA-BOSE. 1967. Diurnal changes in glycogen and fat levels in the pectoralis of the migratory starling, *Sturnus roseus*. Pavo, 5: 1–8.—Glycogen levels are higher in evening than morning in both pre- and postmigratory periods. Fat levels are higher in mornings than evenings except just prior to migration when fat content is the same for mornings and evenings. The significance of these variations to migration is discussed.—R.W.S.

GILL, J. B., AND H. J. BURFORD. 1968. Secretion from normal and supersensitive avian salt glands. J. Exp. Zool., 168: 451–454.—Experiments on geese demonstrated supersensitivity of chronically denervated salt glands. A hormonal control is implicated.—A.S.G.

HARRISON, J. 1968. Examples of intersexuality in the Mallard and teal. Bull. Brit. Ornithol. Club, 88: 154–160.—Two in *Anas platyrhynchos* and one in *A. crecca*. Histological examination of the two Mallards suggested ovarian agenesis.—K.P.A.

JOHN, T. M. 1966. A histochemical study of adrenal corticoids in the pre- and postmigratory phases in the migratory wagtails *Motacilla alba* and *Motacilla flava*. Pavo, 4: 9–13.—Corticoid level increases as time of migration nears. The significance of this increase to migration is discussed.—R.W.S.

JOHN, T. M., AND J. C. GEORGE. 1966. Certain histological and histochemical changes in the testis of migratory wagtails towards migration. Pavo, 4: 1–8.—Weight of testis, and diameter and number of component cells of seminiferous tubules of *Motacilla alba* and *M. flava*. Cyclic changes correlated with changes in thyroid and anterior pituitary cells producing FSH.—R.W.S.

JOHN, T. M., AND J. C. GEORGE. 1966. Seasonal variations in the glycogen and fat contents of the liver and the pectoralis muscle of migratory wagtails. Pavo, 4: 58–64.—Quantitative and histochemical studies of *Motacilla alba* and *M. flava* show a considerable increase in metabolites prior to migration. The increase in glycogen may be to provide a steady flow of oxaloacetate which is essential for fatty acid oxidation when the bird metabolizes fat during migration.—R.W.S.

JOHN, T. M., AND J. C. GEORGE. 1967. Certain cyclic changes in the thyroid and parathyroid glands of migratory wagtails. Pavo, 5: 19–28.—Histological and histochemical observations indicate changes in glandular activity between October and April in *Motacilla alba* and *M. flava*.—R.W.S.

JOHN, T. M., AND J. C. GEORGE. 1967. Seasonal variation in cholesterol level in the migratory starling, *Sturnus roseus*. Pavo, 5: 29–38.—Cholesterol levels in the blood, liver, adrenal, and pectoralis muscles of pre- and postmigratory starlings are assayed, and the significance of these concentrations discussed.—R.W.S.

JOHN, T. M., AND J. C. GEORGE. 1967. Cyclic changes in the ascorbic acid (total vitamin C) content of the adrenal in the migratory starling, *Sturnus roseus*. Pavo, 5: 39–46.—The fall in ascorbic acid level prior to migration is suggested as the factor stimulating production of corticosteroid hormones and adrenaline.—R.W.S.

JOHN, T. M., AND J. C. GEORGE. 1967. Seasonal variations in the levels of tyrosine and phenylalanine in the adrenal of the migratory starling, *Sturnus roseus*. Pavo, 5: 47–51.—Chromatographic estimations of these two amino acids indicated highest quantities present in February with gradual decrease towards April. Changes correlated with decrease in ascorbic acid levels, and also with increased production of adrenaline towards migration time.—R.W.S.

McNABB, F. M. A. 1969. A comparative study of water balance in three species of quail. 1. Water turnover in the absence of temperature stress. Comp. Biochem. Physiol., 28: 1045–1058.—Water turnover was similar in species that inhabit humid, mesic, and xeric habitats during experiments under conditions of ad lib. water consumption. Under limited deprivation these species showed physiological responses, e.g. turnover rates, rates of dehydration and rehydration, that reflected physiological adaptations to the availability in these habitats.—A.H.B.

McNABB, F. M. A. 1969. A comparative study of water balance in three species of quail. 2. Utilization of saline drinking solutions. Comp. Biochem. Physiol., 28: 1059–1074.—Utilization of saline water in Bobwhite, California, and Gambel's Quail as estimated by several physiological parameters was correlated with the degree of water shortage in the habitat of each.—A.H.B.

MINOCK, M. E. 1969. Salinity tolerance and discrimination in House Sparrows (*Passer domesticus*). Condor, 71: 79–80.

RICHARDS, S. A. 1968. Vagal control of thermal panting in mammals and birds. J. Physiol., 199: 89–101.—Experimental evidence suggests panting is controlled by central mechanisms alone in some birds (*Columba livia*), but depends on extrinsic stimuli mediated by the vagus nerves in others (*C. coturnix, Anas domesticus, G. gallus*).—A.H.B.

SETO, F., AND W. G. HENDERSON. 1968. Natural and immune hemagglutinin forming capacity of immature chickens. J. Exp. Zool., 169: 501–512.—Natural hemagglutinins for several mammalian erythrocytes were low in 12–20 day embryos and chicks up to 2 weeks old. Antibody levels increased rapidly in the 3rd and 5th weeks (more slowly thereafter) in correspondence with the development of germinal centers in the spleen. A few day-old and all week-old chicks, but not 14–18 day embryos, showed precocious development of germinal centers and produced antibodies upon insult with mammalian erythrocytes.—A.S.G.

TRAMS, E. G. 1969. Carotenoid transport in the plasma of the Scarlet Ibis (*Eudocimus ruber*). Comp. Biochem. Physiol., 28: 1177–1184.—Carotenoid composition of plasma differs in wild and captive Scarlet Ibis. Plasma carotenoids are associated with high-density lipoprotein fractions. A proposed "carotenoid carrier protein" was found in the Scarlet, but not the White Ibis.—A.H.B.

WEST, G. C. 1968. Bioenergetics of captive Willow Ptarmigan under natural conditions. Ecology, 49: 1035–1045.—Adult *Lagopus lagopus* from the Brooks Range of northern Alaska were maintained in outdoor aviaries throughout the year. Metabolized energy, molt, egg-laying, body weight, and gross activity were recorded. Average existence energy during winter at −20°C was 117 kcal/bird daily. The total energy requirement of captives is practically uniform throughout the year.—H.W.K.

WILLOUGHBY, E. J. 1969. Evaporative water loss of a small xerophilous finch, *Lonchura malabarica*. Comp. Biochem. Physiol., 28: 655–664.—Individuals on reduced water rations supressed evaporative water loss even at relatively high (44°C) T_a. This species also showed little weight loss under conditions of water deprivation and had a high (above 42°C) upper critical temperature. These parameters presumably reflect physiological adaptation to a desert environment.—A.H.B.

ZAR, J. H. 1969. The use of the allometric model for avian standard metabolism—body weight relationships. Comp. Biochem. Physiol., 29: 227–234.—Different results were obtained when data on avian metabolism and body weight relationships were fitted to an allometric equation and its logarithmic transformation. Fitting data to the allometric equation gave values of b that were not significantly different in eight avian orders. The relations of these results to previous studies are discussed.—A.H.B.

TAXONOMY AND PALEONTOLOGY

BENSON, C. W. 1969. The white-eye *Zosterops maderaspatana* (Linn.) of Menai Island, Casmoledo Atoll. Bull. Brit. Ornithol. Club, 89: 24–27.—Describes *Zosterops maderaspatana menaiensis,* subsp. nov.—K.P.A.

BENSON, C. W., AND J. M. WINTERBOTTOM. 1968. The relationship of the Striped Crake *Crecopsis egregia* (Peters) and the White-throated Crake *Porzana albicollis* (Vieillot). Ostrich, 39: 177–179.—Ethiopian *egregia* and Neotropical *albicollis* are considered congeneric and segregated in the genus *Crecopsis.* Similar Ethiopian-Neotropical pairs are *Porphyrula alleni* and *martinica,* and *Rostratula benghalensis* and *semicollaris.*—M.A.T.

BOCK, W. J., AND A. MCEVEY. 1969. The radius and relationship of owls. Wilson Bull., 81: 55–68.

BROOKE, R. K. 1969. *Apus berliozi* Ripley, its races and siblings. Bull. Brit. Ornithol. Club, 89: 11–16.—The diagnostic characters of the siblings *Apus apus, barbatus, berliozi, bradfieldi, niansae,* and *pallidus* and their races are discussed. *A. berliozi bensoni,* subsp. nov., is described from Kilifi, Kenya.—K.P.A.

BRUINS, S. 1968. Original description of *Vultur tracheliotus* Forster. Ostrich, 39: 196.—The correct citation is *Vultur tracheliotus* Forster in Levaillant, 1796, Reise in das Innere von Africa, 3: 362, pl. 12.—M.A.T.

CAMPBELL, J. M. 1969. Subspecific status of *Branta canadensis* in the Central Brooks Range, Alaska. Condor, 71: 80–81.

CLANCEY, P. A. 1968. On variation in the Cattle Egret *Bubulcus ibis* (Linnaeus). Ostrich, 39: 193–194.—Ethiopian populations are smaller than those from the Palaearctic and should bear the name *B. i. ruficrista* Bonaparte. Racial allocation of the New World populations is not discussed.—M.A.T.

CLANCEY, P. A. 1968. On *Merops superciliosus* Linnaeus from western South Africa. Ostrich, 39: 202.—Birds from Angola and Ovamboland appear to form a breeding population, slightly differentiated from East African birds.—M.A.T.

CLANCEY, P. A. 1968. Miscellaneous taxonomic notes on African birds XXVI. Durban Mus. Novitates, 8: 183–198.—Review of South African *Zosterops*; *Apalis melanocephala addenda,* subsp. nov., from Massinga, Sul do Save, Moçambique; interesting distributional records from Moçambique south of the Zambesi River.—M.A.T.

CLANCEY, P. A. 1968. Seasonal movement and variation in the southern populations of the Dusky Lark *Pinarocorys nigricans* (Sundevall). Bull. Brit. Ornithol. Club, 88: 166–171.—Data from recently assembled specimens indicate that *P. n. nigricans* breeds in the northern part of its range and winters in the south. The author divides this southern race of the species into two subspecies, *P. n. nigricans* and *P. n. occidentis,* subsp. nov.—K.P.A.

CLANCEY, P. A. 1968. On the name of a race of *Buphagus erythrorhynchus* (Stanley). Bull. Brit. Ornithol. Club, 88: 172.—*Buphagus erythrorhynchus caffer* Grote, 1927, is antedated by *B. e. africanoides* Smith, 1831.—K.P.A.

CLANCEY, P. A., AND W. J. LAWSON. 1969. A new race of White-breasted Alethe from Moçambique. Bull. Brit. Ornithol. Club, 89: 4–6.—*Alethe fuelleborni xuthura,* subsp. nov., from coastal forest near Dondo, Beira, southern Moçambique.—K.P.A.

CURRY-LINDAHL, K. 1968. [The taxonomy of the herons (*Ardeidae*) in the light of ethological studies. A preliminary report.] Vår Fågelvärld, 27: 289–308.—The similarities of the species pairs *Butorides virescens* and *B. striatus, Egretta garzetta* and *E. thula,* and *Ardea cinerea* and *A. herodias* are so great as to suggest a reconsideration of their taxonomic status. (English summary.)—L.D.K.L.

FRIEDMANN, H. 1968. Range and variation of the Icterine Bulbul in Uganda. Bull. Brit. Ornithol. Club, 88: 110–112.—Summarizes distribution and distinguishing characters of the siblings *Phyllastrephus icterinus* and *P. xavieri*.—K.P.A.

FRIEDMANN, H. 1968. Zenker's Honey-Guide. J. Ornithol., 109: 276–283.—A recently collected specimen of the extremely rare Zenker's Honey-Guide *Melignomon zenkeri,* reveals close similarities in internal structure and diet (scale insects) to *Prodotiscus*.—H.C.M.

GOODWIN, D. 1968. Notes on woodpeckers (Picidae). Bull. Brit. Mus. (Nat. Hist.), 17: 1–44.—Presents notes prepared during the author's rearranging of woodpeckers in the British Museum (Natural History), suggesting many changes in woodpecker classification. *Centurus, Tripsurus,* and *Leuconerpes* are merged in *Melanerpes* (no mention is made of *Trichopicus* and *Asyndesmus,* certainly also candidates for such merger). *Dendrocopos obsoletus* is assigned to *Dendropicos*. Goodwin suggests that *Picoides* is derived from *Dendrocopos,* particularly *D. villosus*. *Sapheopipo noguchii* is derived from *Dendrocopos* rather than from *Picus* or its relatives, but the pattern depicted in Goodwin's Figure 9 simply cannot be perceived in any specimen of *Sapheopipo* seen by this reviewer. Its pattern and plumage texture are like those typical of *Picus,* and strikingly like those of *Picus canus dedemi*. *Dinopium* and *Chrysocolaptes* are closely related, as previously noted by Bock (Amer. Naturalist, 97: 265–285, 1963; not cited by Goodwin), and their resemblance is hence due to parallelism. Those acquainted with New World woodpeckers doubtless will find it difficult to follow Goodwin's merger of the New World portion of *Dryocopus* (the Pileated Woodpecker group) and of *Phloeoceastes* into *Campephilus;* excluded is the Magellanic Woodpecker (*"Ipocrantor" magellanicus*). The similarity of displays and calls of *Dryocopus martius* with those of *Picus viridis* noted by Goodwin is paralleled by resemblances of *D. pileatus* with *Colaptes auratus* in the New World, reflecting a broad picid resemblance in these features, but not indicating the close relationship of all of these genera. Perhaps the most useful portions of Goodwin's paper for the general ornithologist are his discussions of sexual dimorphism (mainly sexual dichromatism), and of juvenal plumages of woodpeckers.—L.L.S.

HAFFER, J. 1968. Über die Entstehung der nördlichen Anden und das vermutliche Alter columbianischer Vogelarten. J. Ornithol., 109: 67–69.—Geological and fossil-botanical evidence suggests the Colombian avifauna differentiated during the Pleistocene. (English summary.)—H.C.M.

HAFFER, J. 1968. Über die Flügel-und Schwanzmauser columbianischer Piciformes. J. Ornithol., 109: 157–171.—Remigial molt of Galbulidae, Bucconidae, and Ramphastidae proceeds from the innermost primary outward except in a few species in the first two families in which it proceeds outward from two foci. Rectrices and possibly also the secondaries of the Galbulidae and Bucconidae are molted irregularly. In Ramphastidae rectricial molt is centripetal and secondary molt proceeds from two foci. Molt patterns suggest arranging the Piciformes into two suborders: Galbuloidea (Galbulidae, Bucconidae) and Picoidea (Capitonidae, Ramphastidae, Indicatoridae, Picidae). (English summary.)—H.C.M.

HALL, E. S., JR. 1969. Avian remains from the Kangiguksuk Site, Northern Alaska. Condor, 71: 76–77.

HOWARD, H. 1968. Limb measurements of the extinct vulture, *Coragyps occidentalis,* with a description of a new subspecies. Pap. Archaeol. Soc. New Mexico, 1: 115–128.—*C. occidentalis* from the Pleistocene of Rancho La Brea have relatively shorter, stouter tarsometatarsi and tibiotarsi, longer wings, and larger body size than living *C. atratus*. *Coragyps* from San Josecito cave resemble the extinct form but average

shorter and thus are assigned to the race *C. occidentalis mexicanus*. The Conkling Cavern, New Mexico, specimens belong to the longer *C. o. occidentalis*. Measurements of additional material may establish the relationship of the two species.—G.E.W.

HOWARD, H. 1969. A new avian fossil from Kern County, California. Condor, 71: 68–69.

HOY, G. 1968. *Geositta rufipennis ottowi,* eine neue Subspecies aus der Sierra de Cordoba. J. Ornithol., 109: 228–229.—A new subspecies of Furnariidae from the Sierra Cordoba, Argentina.—H.C.M.

JEHL, J. R., JR. 1968. Type specimens of birds in the San Diego Natural History Museum. Trans. San Diego Soc. Nat. Hist., 15: 133–139.

JEHL, J. R., JR. 1969. Fossil grouse of the genus *Dendragapus*. Trans. San Diego Soc. Nat. Hist., 15: 165–174.—Two sympatric species of *Dendragapus, D. lucasi* and *D. gilli,* inhabited western United States during late Pleistocene. The possible relationships of these to living *D. obscurus* are discussed.—G.E.W.

KEITH, S. 1968. A new subspecies of *Poeoptera lugubris* Bonaparte from Uganda. Bull. Brit. Ornithol. Club, 88: 119–120.—*Poeoptera lugubris webbi,* subsp. nov., from Impenetrable Forest, Kigezi, Uganda, altitude 5,000 ft.—K.P.A.

LAWSON, W. J. 1968. Geographical variation in the Yellow-breasted Apalis *Apalis flavida* of Africa. Durban Mus. Novitates, 8: 199–226.—Recognizes 10 races, 2 of them new: *A. f. renata* from Mapihane, Sul do Save, Moçambique, and *A. f. pugnax* (*flavocincta* of authors, not of Sharpe) from Manyuki, Mt. Kenya.—M.A.T.

LAWSON, W. J. 1969. A new name for a race of the Black-headed Oriole. Bull. Brit. Ornithol. Club, 89: 16.—*Oriolus larvatus additus,* nom. nov., is proposed for *O. l. tibicen* Lawson, 1962, which is pre-occupied by *O. galbula tibicen* Brehm.—K.P.A.

MUNTEANU, D. 1967. Révision systématique des étourneaux, *Sturnus vulgaris* L., des environs de la Mer Noire. Larus, 19(1965): 179–203.—Taxonomy of Black Sea area Starlings has been uncertain due to misinterpretation of previous color descriptions, lack of a uniform color scale, and the fact that the iridescent plumage reflects different colors when viewed at different angles. A brief description of the plumages and molt is given. Contrary to some previous studies only two subspecies are recognized in the western Black Sea area: *S. v. vulgaris* and *S. v. tauricus*; these form a hybrid population from European Turkey to the river Dnieper which was formerly considered the subspecies *balcanicus*. This work verifies Vaurie's (1954) findings regarding the abolishment of various subspecies previously described from this hybrid population on the Balkan coast of the Black Sea.—M.D.F.U.

PARKES, K. C. 1969. Some undescribed subspecies of tanagers from South America. Bull. Brit. Ornithol. Club, 89: 17–20.—Describes *Euphonia xanthogaster cyanonota,* subsp. nov., and *E. chlorotica amazonica,* subsp. nov. from Arimã, Rio Purús, Brazil, and *Tangara ruficervix inca,* subsp. nov., from Utcuyaca, Depto. of Junin, Peru.—K.P.A.

RAND, A. L. 1968. What is *Serinus 'flavigula'*? Bull. Brit. Ornithol. Club, 88: 116–119.—Based on skins, *Serinus flavigula* is considered an aberrant or mutant form of *S. atrogularis xanthopygius. S. collaris* and *S. dimidiata* probably are aberrant or mutant forms of *S. a. reichenowi.*—K.P.A.

SHORT, L. L. 1969. A new species of blackbird (*Agelaius*) from Peru. Occ. Pap. Mus. Zool., Louisiana State Univ., no. 36: 8 pp.—*A. xanthophthalmus,* the Pale-eyed Marsh Blackbird, is described from a pair collected in a small marsh northeast of Tingo María, Department of Huanuco, in the Amazonian drainage of central

Peru. No other individuals of this moderately small, all black, icterid were seen. A short sequence of displays is diagramed based on motion pictures.—F.E.L.

SIBLEY, C. G. 1968. The relationships of the "Wren-thrush," *Zeledonia coronata* Ridgway. Postilla, no. 125: 12 pp.—Electrophoretic patterns of egg-white proteins indicate membership in the "nine-primaried oscines" and close alliance with the Parulidae. A review of the taxonomic history of *Zeledonia* provides ample anatomical evidence for its transfer from the thrushes.—F.E.L.

SIBLEY, C. G., K. W. CORBIN, AND J. E. AHLQUIST. 1968. The relationships of the Seed-snipe (Thinocoridae) as indicated by their egg white proteins and hemoglobins. Bonner Zool. Beitr., 19: 235–248.—The starch-gel electrophoretic patterns of the egg white proteins of *Thinocorus orbignyianus* and *Attagis gayi* and of the hemoglobins of *A. gayi* most closely resemble those of the Charadriiformes, but it is not possible to suggest which group of shorebirds is closest.—F.E.L.

TATE, J., JR., AND L. D. MARTIN. 1969. A Canada Goose from the middle Pleistocene of Nebraska. Condor, 71: 81.

TCHERNOV, E. 1968. A preliminary investigation of the birds in the Pleistocene deposits of 'Ubeidiya. Publ. Israel Acad. Sci. and Humanities, Jerusalem. The Pleistocene of the central Jordan Valley. The excavations at 'Ubeidiya. 33 pp. + 3 pl.—*Fulica stekelesi, Melanocorypha gracilis, Alauda jordanica,* and *Petronia brevirostris* are described from mid-Pleistocene deposits 31×10^4 to 12×10^4 years old. Three species, *Phalacrocorax africanus,* cf. *Ixobrychus* sp., and *Francolinus* sp., no longer are found in the Near East. The remainder of the material resembles modern species. Based on the avifauna the reconstructed habitat is a savannah with reed-bordered eutrophic lakes and cliffs.—F.E.L.

WETMORE, A., AND G. E. WATSON. 1969. The generic name for the Dovekie or Little Auk. Bull. Brit. Ornithol. Club, 89: 6–7.—Advocates a return to *Alle* Link, 1807. —K.P.A.

A note of thanks.—The following persons assisted in preparing the Periodical Literature section of volume 85 of The Auk: Kenneth P. Able, Hervey Brackbill, Richard Brewer, Alan H. Brush, Mary Heimerdinger Clench, Charles T. Collins, James J. Dinsmore, Eugene Eisenmann, Abbot S. Gaunt, John William Hardy, Hildegarde Howard, Richard James, Joseph R. Jehl, Jr., Marion A. Jenkinson, Herbert W. Kale, II, Louise de K. Lawrence, John S. Mackiewicz, Helmut C. Mueller, Robert W. Nero, John C. Ogden, Kenneth C. Parkes, Robert B. Payne, James D. Rising, Jerome D. Robins, William B. Robertson, Jr., Gerald G. Robinson, Gary D. Schnell, Lester L. Short, Jr., Robert C. Stein, Melvin A. Traylor, Frantisek J. Turček, Miklos D. F. Udvardy, Aldeen C. Van Velzen, Alexander Wetmore, Susan C. White, and especially Carole F. Sumner, Fred E. Lohrer, and Ralph W. Schreiber.—G.E.W.