

RECENT LITERATURE

EDITED BY FRANK MCKINNEY

ANATOMY AND EMBRYOLOGY

- AUBER, L. 1955. Cortex and medulla of bird-feathers. *Nature*, **176**: 1218-1219.—Differential staining brings out the differences between cortex and medulla; some earlier misconceptions of feather structure can thus be corrected.—H. C. S.
- BELLAIRS, A. D'A. 1955. Skull development in chick embryos after ablation of one eye. *Nature*, **176**: 658-659.
- FISHER, H. I. 1955. Some aspects of the kinetics in the jaws of birds. *Wilson Bull.*, **67**: 175-188, 4 fig., 6 tables.—Methods for studying the movement of the upper bill were determined, and some anatomy affecting the movement is described.—J. T. T.
- GLENNY, F. H. 1955. Modifications of pattern in the aortic arch system of birds and their phylogenetic significance. *Proc. U. S. Natl. Mus.*, **104**: 525-621, 12 figs.—A bringing together of the widely scattered literature on the carotid arteries of birds and a discussion of the evolution of the various arrangements of these vessels.—R. W. S.
- HILTON, W. A. 1955. A note on the brain plexuses of birds. *Bull. Southern Calif. Acad. of Sciences*, **54**: 113-116, pl. 31.
- HUDSON, G. E., and P. J. LANZILLOTTI. 1955. Gross anatomy of the wing muscles in the Family Corvidae. *Amer. Midland Nat.*, **53**: 1-44, 35 figs.—An important comparative study of 19 species and subspecies of corvids, all but 2 of which are American.—R. W. S.
- MOSIER, H. D. 1955. The development of the hypothalamo-neurohypophyseal secretory system in the chick embryo. *Endocrin.*, **57**: 661-669.
- SCHECHTMAN, A. M., and P. F. KNIGHT. 1955. Transfer of proteins from the yolk to the chick embryo. *Nature*, **176**: 786-787.

BEHAVIOR

- ASCHOFF, J., and J. MEYER-LOHMANN. 1955. Die Aktivität gekäfigter Grünfinken im 24-Stunden-Tag bei unterschiedlich langer Lichtzeit mit und ohne Dämmerung. *Zeitschr. f. Tierpsychol.*, **12**: 254-265.—English summary. The locomotor activity of caged Greenfinches (*Chloris chloris* L.) was studied experimentally by manipulating the day length. During a light period of 8 hours per day birds showed highest activity per light-hour, during a light period of 12 hours per day the highest total activity per 24 hours.—F. M.
- ENGELMANN, C. 1955. Versuche über den Gesichtskreis der Gans. *Zeitschr. f. Tierpsychol.*, **12**: 266-276.—English summary. Experiments on domestic geese, ducks, and chickens show the distances at which they recognize a white plate, grain, and fellow members of their species. Geese see distant goals better than chickens or ducks, but chickens are best at recognizing objects which are quite near.—F. M.
- EWER, R. F. 1956. Imprinting in animal behaviour. *Nature*, **177**: 228-229.—Some suggestions are offered on the relationship of imprinting to the evolution and natural selection of learning and instinctive behavior.—H. C. S.
- FRINGS, H., M. FRINGS, B. COX, and L. PEISSNER. 1955. Auditory and visual mechanisms in food-finding behavior of the Herring Gull. *Wilson Bull.*, **67**: 155-170, 3 figs.—Gulls (*Larus argentatus*) first found food by sight. The actions of the finder attracted other gulls, but more effective was a food-finding call

- which attracted gulls from distances up to 3 to 5 km. Notes on other calls are included.—J. T. T.
- GEWALT, W. 1955. Droh- und Kampfverhalten des Brachvogels (*Numenius arquata* L.) gegenüber der Grosstrappe (*Otis tarda* L.) Zeitschr. f. Tierpsychol., **12**: 277-285.—English summary. Nesting Curlews attack Bustards by pecking toward the cloaca. This reaction was investigated in captive birds. Threat postures occur when attack is inhibited. Threat-crouching resembles some courtship movements of *Numenius* and related species. Other hostile behavior patterns are described. Illustrated by excellent photographs.—F. M.
- MARLER, P. 1955. Characteristics of some animal calls. *Nature*, **176**: 6-8.—Birds' sounds are utilized to facilitate location or to confuse location. The physical properties of sound and of hearing are analyzed to show how these contrasting properties are achieved.—H. C. S.
- MCNAMARA, E. 1955. Function of the bower of bower-birds. *Nature*, **176**: 207.—Observation of copulation occurring in the bower of the Satin Bowerbird.—H. C. S.
- SAUNDERS, A. A. 1955. An analysis of the songs of meadowlarks. *Wilson Bull.*, **67**: 303-304, 1 fig.—Songs of the Southern Meadowlark (*Sturnella magna argutula*) are intermediate in some characteristics between those of the Eastern Meadowlark (*S. m. magna*) and the Western Meadowlark (*Sturnella neglecta*).—J. T. T.
- ZIMMERMAN, D. A. 1955. Notes on field identification and comparative behavior of shrikes in winter. *Wilson Bull.*, **67**: 200-208, 4 figs.—*Lanius excubitor* and *L. ludovicianus*.

DISEASES AND PARASITES

- COIL, W. H. 1955. The morphology of *Cyclusteria capito* (Rudolphi, 1819) Fuhrmann 1901. *Trans. Am. Micros. Soc.*, **74**: 353-357.—Cestodes from Roseate Spoonbills (*Ajaia ajaja*).
- HANSON, H. C., N. D. LEVINE, and S. KANTOR. 1956. Filariæ in a wintering flock of Canada Geese. *Journ. Wildl. Mgt.*, **20**: 89-92.—The incidence of Microfilariae of *Ornithofilaria* (?) sp. in the blood of *Branta canadensis*. *Sarconema eurycerca* was present in yearlings and adults only.—J. J. H.
- SHELL, S. C. 1955. *Schistotaenia colymba*, n. sp. from the Horned Grebe (*Colymbus auritus* L.) *Trans. Am. Micros. Soc.*, **74**: 347-350.
- SELANDER, R. K. 1955. The occurrence of the parasite *Sarcocystis* in Mexican birds. *Amer. Midland Nat.*, **54**: 252-253.—The cyst-forming *Sarcocystis* ("until recently believed to be a protozoan but now considered by many to be a fungus") was found in 1.68 per cent of 119 *Campylorhynchus chiapensis*, 1.49 per cent of 268 *C. rufinucha*, 14.3 per cent of 7 *Salpator coerulescens*, and 66.6 per cent of 3 *Synallaxis erythrothorax*. All specimens were collected at random.—D. A. Z.

DISTRIBUTION

- ALDRICH, J. W., and A. J. DUVALL. 1955. Distribution of American gallinaceous game birds. 23 pp., 7 pl. (U. S. Fish and Wildlife Service, Washington, D. C.) Price, 30 cents.—Includes well-prepared distribution maps and brief comments on range and habitat of 21 U. S. species.—D. A. Z.
- ALI, S. 1955. The birds of Gujarat, part II. *Journ. Bombay Nat. Hist. Soc.*, **52**: 736-802.—Annotated list dealing with the Hirundinidae, Campephagidae, Irenidae, Pycnonotidae, Muscicapidae (incl. Muscicapinae, Timaliinae, Sylviinae, Turdinae), Motacillidae, Laniidae, Sittidae, Paridae, Dicaeidae, Nectariniidae,

- Zosteropidae, Fringillidae, Ploceidae, Sturnidae, Oriolidae, Dicruridae, and Corvidae in this western Indian region.—D. A. Z.
- BATEMAN, B. 1953. Observations on the natural history of the Leaf Bay—Fort Chimo Region, Ungava, Quebec. *Intermediate Naturalist*, 8: 1-7.—Includes an annotated list of 38 bird species observed between June 20 and Sept. 18, 1953; contains numerous breeding records.—D. A. Z.
- BEHLE, W. H. 1955. The birds of the Deep Creek Mountains of central western Utah. (Univ. of Utah Biol. Ser. Vol. 11, No. 4, 34 pp.)—An annotated list of 147 forms (145 species) and a brief description of the region.—D. A. Z.
- DAVIS, W. B., and R. J. RUSSELL. 1953. Aves y mamíferos del estado de Morelos. *Revista de la sociedad Mexicana de historia natural*, 14 (1-4): 77-147.—Annotated lists (in Spanish) of 237 forms of birds and 68 mammals based on material collected by Davis and others. The unusually large number of mistakes in spelling casts some doubt on the reliability of data presented in this translation.—D. A. Z.
- FABLES, D., JR. 1955. Annotated list of New Jersey birds. (Urner Ornithological Club.) xi + 95 pp., 4 figs., 3 maps.—The 370 species recorded "up to and including September 1, 1954," include at least 12 whose New Jersey status apparently rests upon sight records alone. Additional subspecies, hybrids, and species on the hypothetical list bring the total number of forms to 421. Subspecies are mentioned (under the species accounts) only "when races are represented in collections," but it is not stated if specimens were critically determined by a taxonomist. A very brief geographical and ecological discussion of the state, a bar graph showing periods of maximum abundance of most species, a check-list of "birds I have seen in New Jersey" (oddly including, extinct, extirpated, and accidental species) supplement the annotated list.—D. A. Z.
- FRADE, F. 1951. Aves coligadas pela Missão Zoológica de Moçambique. *Junta das Missões Geográficas e de Investigações Coloniais, Lisboa*, vol. 6, pt. 4, fasc. 3, pp. 1-220.—An annotated catalog of the specimens of 236 forms of birds collected, together with summaries of earlier published records, and with occasional discussion of variations, distribution, etc. There are no field notes on the habits of the birds.—H. F.
- FRADE, F. 1951. *Catálogo das Aves de Moçambique*. Junta das Missões Geográficas e de Investigações Coloniais, Lisboa, vol. 6, pt. 4, fasc. 4, pp. 1-294.—Lists 800 species and subspecies of birds from Mozambique. The account of each form is merely a list of all the records known to the author with the pertinent literature references. There is no discussion, no attempt to summarize the local distribution or status (whether breeding, wintering, migrant), no indication even of whether or not the author had an opportunity to examine critically the validity of many of the races he includes on the basis of earlier published identifications. There is an introductory chapter with a brief biogeographic account of the country, and a bibliography, but the list can only be looked upon as a convenient point of departure for future work rather than as a firmly established basis to which to add.—H. F.
- FRIEDMANN, H., and F. D. SMITH, JR. 1955. A further contribution to the ornithology of northeastern Venezuela. *Proc. U. S. Natl. Mus.* 104 (No. 3345): 463-524.—An annotated list of forms collected by Smith since the 1950 report on this region by these authors. Also includes a complete list of the known avifauna of the region.—D. A. Z.
- HAVERSCHMIDT, F. 1955. List of the birds of Surinam (Ut recht. Foundation for Scientific Research in Surinam and the Netherlands Antilles Publ. No. 13.) 153

- pp.—An annotated list of 536 species. There is a 4-page annotated bibliography and a map.—D. A. Z.
- HUMMELINCK, P. W. 1952. Islote Aves, een vogeleiland in de Caraïbische Zee. De West-Indische Gids, **33**: 23–34.—An account of a visit to "Bird Island" west of Dominica, May 12, 1949. "This key is composed of coral sand, partly cemented into a soft, calcareous sandstone . . .," and is a nesting ground of many *Anous stolidus* and *Sterna fuscata*. Some nests of *Larus atricilla* were found.—D. A. Z.
- RAND, A. L., and M. A. TRAYLOR. 1954. Manual de las aves de El Salvador (University of El Salvador). 308 pp. Illustrations (previously published in Blake's, Birds of Mexico, 1953) by D. E. Tibbitts.—Keys to, descriptions of, and general remarks on 393 species.—D. A. Z.
- SABATER PI, J. 1954. Notas para un estudio de los indicadores de miel (Familia Indicatoridae) de la Guinea Española. Archivos del Instituto de Estudios Africanos **7**, No. 30, pp. 7–12.—Six species of honey-guides are listed from Spanish Guinea, but for two of them, *Melichneutes robustus* and *Melignomon zenkeri*, there are no actual records. No new facts about the birds are given.—H. F.
- SCHAANNING, H. T. L. 1954. A contribution to the ornithology of eastern Siberia. Nytt Magazin for Zoologi, **2**: 91–115.—Annotated list of 85 forms. Translated into English from the Norwegian manuscript by Dr. Y. Hagen. "Based on the collections made by Mr. Johan Koren in Kolyma in 1914–1918."—D. A. Z.
- SCHOUTEDEN, H. 1955. Les Indicatorides congolais. Rev. Zool. Bot. Afr., vol. **51**, pp. 397–400.—Additional specimen locality records from the Belgian Congo for the various species and races of honey-guides found there.—H. F.
- SCHOUTEDEN, H. 1955. Quelques oiseaux de la faune congolais. Rev. Zool. Bot. Afr., vol. **51**, pp. 401–405.—Notes on the occurrence and the distribution of nine species of land birds. Range of *Laniarius mfumbiri* extends to Ruanda.—H. F.
- SMITH, H. R., and P. W. PARMALEE. 1955. A distributional check list of the birds of Illinois. (Ill. State Mus. Popular Sci. Ser. vol. 4, 62 pp.)—384 species, "91 of which are now considered extinct or 'accidental' within the state." More than 30 are included solely on the basis of sight records. Numerous other species "usually not observed within the state boundaries each year" are indicated by a special symbol. These include species represented by extant specimens as well as those whose Illinois status rests only on early references to specimens evidently not examined by the authors. There is a 4-page list of literature cited.—D. A. Z.
- VAN HOOSE, S. G. 1955. Distributional and breeding records of some birds from Coahuila. Wilson Bull., **67**: 302–303.—Notes on eleven species.
- YEPEZ TAMAYO, G. 1955. El orden Ciconiiformes y sus representantes en Venezuela. Memoria de la Sociedad de Ciencias Naturales la Salle **15** (No. 40): 5–44. (In Spanish with brief English summary.)—An account of the ordinal, subordinal, and family characters, in addition to descriptive and distributional information on each species. Some specimens are cited.—D. A. Z.

ÉCOLOGY AND POPULATION

- BETTS, M. M. 1955. The food of titmice in oak woodland. Journ. Animal Ecol., **24**: 282–323.—Stomach analyses showed that competition for food between *Parus major*, *P. caeruleus*, *P. ater*, and *P. palustris* was largely avoided because of differences in food preferences and in the stratum where it was sought. The amount of predation on defoliating caterpillars did not exceed 4.8 per cent of the caterpillar population.—S. C. K.

- GOLLEY, F. B., and P. A. JOHNSGARD. 1955. Fall distribution of birds in a Palouse River canyon. *Ecol.*, **36**: 754-755.—Relation of bird populations of different species to types of vegetation.—S. C. K.
- GOODNIGHT, C. J., and M. L. GOODNIGHT. 1956. Some observations in a tropical rain forest in Chiapas, Mexico. *Ecol.*, **37**: 139-150.—Characteristic birds of the high forest, ground and low vegetation, and forest-edge are listed.—S. C. K.
- JOHNSTON, D. W., and E. P. ODUM. 1956. Breeding bird populations in relation to plant succession on the Piedmont of Georgia. *Ecol.*, **37**: 50-62.—Densities of 15-40 pairs per 100 acres in recently abandoned fields increased to 136 in shrublands, decreased to 87-93 in young pine forests, increased to 239 in 100-year-old pine and 228 in a young oak-hickory forest. Winter densities were higher in all vegetation types except the oak-hickory forest. Forest-edge species are those that require for their breeding territories a combination of two or more communities of widely different age. Forest-edge species constitute 30-40 per cent of the common breeding species of the region.—S. C. K.
- LANYON, W. E. 1956. Ecological aspects of the sympatric distribution of meadowlarks in the north-central states. *Ecol.*, **37**: 98-108.—The Western Meadowlark has extended its range northeastward during the last 50 years, replacing the Eastern Meadowlark in certain areas. Where the ranges of the two species overlap, the Western Meadowlark selects the more xeric sites and the Eastern Meadowlark the moister ones.—S. C. K.
- SPRUNT, A., JR. 1955. The spread of the Cattle Egret. *Smithsonian Inst. Ann. Report for 1954*: 259-276.—A summary, with emphasis on the New World. Includes brief comments on food, competition with other species, and other topics. Possibly the first *Bubulcus ibis* to breed in North America were those seen in Florida in 1941 or 1942, though no breeding evidence was obtained until 1953. This continent's Cattle Egret population was estimated to be about 2,000 birds in July, 1954. Apparently the first known South American nests were found in British Guiana in 1950. All New World specimens taken are *B. i. ibis*.—D. A. Z.
- WING, L. W. 1955. Latitudinal slippage of Bob-white, Hairy Woodpecker, and Downy Woodpecker cycles. *Journ. Cycle Research*, **4** (1): 3-31.—An attempt to correlate U. S. and Canadian Christmas census data ("as birds per hour of census-ing, 1900-1939") with temperature cycles.—D. A. Z.

EVOLUTION AND GENETICS

- GOSLIN, R. M. 1955. Animal remains from Ohio rock shelters. *Ohio Journ. Sci.*, **55**: 358-362.—Among the bird remains found in rock shelters in Hocking, Fairfield, Jackson, and Summit counties were those of the Raven, Wild Turkey, Passenger Pigeon, Trumpeter Swan, Prairie Chicken, Swallow-tailed Kite, and Mississippi Kite.—H. C. S.
- UDAGAWA, T. 1955. Karyogram studies in birds. V. The chromosomes of five passerine birds. *Annot. Zool. Jap.*, **28**: 19-25.—*Motacilla grandis*, *M. cinerea caspica*, *Muscicapa c. cyanomelana*, *Horeites c. cantans*, and *Turdus naumanni eunomus*.—R. W. S.

GENERAL BIOLOGY

- BIAGGI, V., JR. 1955. The Puerto Rican Honeycreeper (Reinita) *Coereba flaveola portoricensis* (Bryant). *Univ. Puerto Rico, Agric. Expt. Sta., Special Publ.*, **61** pp.—Data on nest construction, attentiveness during incubation and care of the young, and the growth of nestlings are presented. Brief treatment of some other topics such as roosting and territory.—F. M.

- BRECKENRIDGE, W. J. 1956. Nesting study of Wood Ducks. *Journ. Wildl. Mgt.*, **20**: 16-21.—Three-year study of attentiveness of *Aix sponsa* by means of automatic recording apparatus. Shortest incubation period (25 days) was recorded when no major disturbance of the hen took place. Periods of 29-30 and 31 days resulted from disturbance of nest and serious chilling of the eggs. For a given species, the shortest incubation period is a biological constant that should not be confused with its longer ecological variants. Recommended phrasing for the period in this species: "25 days and longer"; not: "from 25 to 31 days."—J. J. H.
- DAVIS, D. E. 1955. Population changes and roosting time of Starlings. *Ecol.*, **36**: 423-430.—No correlation obtained between roosting time and photometer readings. Highest roosting populations occurred in September and January.—S. C. K.
- HERROELEN, P. 1955. Over de Grote Gele Kwikstaart. *Motacilla cinerea* Tunst. *Gerfaut*, **45**: 117-126.—Notes on the Gray Wagtail in Belgium. One male weighed 18 gm. and two females, 14 and 25 gm. Banding has shown that adults winter in Belgium, young may migrate to England, and birds from Germany may winter in Ardennes. Fall migration starts in August; spring migration occurs from February to the end of April.
- Nests are built near watercourses and from 0.5 to 10 meters above the water-level. Construction takes 5 to 12 days. The clutch size varies from 3 to 7, 5 and 6 are the most frequent, first sets tend to be smaller. Complete sets may be found from early April to the middle of July. As many as three sets may be laid in one season. Incubation begins with the laying of the last egg and lasts 12 to 13 days. The young remain in the nest 12 to 15 days. Two weeks after they depart, the female starts the second set. (In Dutch.)—R. W. S.
- HORVÁTH, L. 1955. Red-footed Falcons in Ohat-Woods, near Hortobágy. *Acta Zool. Acad. Scient. Hungaricae*, **I** (fasc. 3-4), 243-287. (In English, with resumé in Russian.) *Falco vespertinus*, gregarious in nesting, occupied old nests of rooks, 110 pairs being congregated in 3 separate rookeries in a woodland 3 kilometers long by 400 to 900 meters broad. The pairs were grouped loosely, as many as five occupying nests in one tree. Two additional were found in nearby acacia groves using old magpie nests. The young were fed mainly on one species of frog (*Pelobates*), orthoptera and beetles, with occasional young birds and lizards. Rooks destroyed many eggs, many were infertile, leaving a nesting success of 45.7 per cent in 30 nests on which full data were secured. It was estimated that 176 young were reared from 110 nests. The falcons are migratory in eastern Hungary arriving about April 26, and leaving in small groups from August 21 to September 14.
- MCCLURE, H. E. 1955. Sex and age ratios of some Japanese birds. *Wilson Bull.*, **67**: 287-290, 2 tables.—Data are based on 3000 birds, mostly passerines. The sex ratio varied from month to month as the conspicuousness of each sex varied with nesting and other activities. The ratio of immature to adult birds showed a peak in August.—J. T. T.
- PETERSON, A. J. 1955. The breeding cycle in the Bank Swallow. *Wilson Bull.*, **67**: 235-286, 22 figs., 17 tables.—The nesting activities of *Riparia riparia* are described with accompanying physiological and histological changes.—J. T. T.
- PORTUGAL ARAUJO, V. DE 1955. Existe em Angola um passaro inimigo das abelhas. *in A Provincia de Angola*, **31** (8651): 1-2.—Considers the Greater Honey-guide (*Indicator indicator*) an enemy of bees because it leads bee hunters to the hives. It should be mentioned that the author is an apiculturist, not an ornithologist.—H. F.

- ROWAN, M. K. 1955. The breeding biology and behaviour of the Redwinged Starling *Onychognathus morio*. Ibis, **97**: 663-705.—Observations were made mainly at two nesting sites over four years at Hout Bay, Cape Peninsula, South Africa. The population is composed of resident pairs and roving flocks of juveniles. Territory is held against other pairs, but the flocks are ignored. Aggression against other vertebrates is marked near the nest. Clutch-size in 19 nests was 3.05 eggs. Two clutches are laid, and the breeding season spans October and December. The female incubates alone. The incubation period is highly variable; in 14 nests it varied from 12½ to 23 days (\bar{x} = 16). The fledging period is 26 days (22-28 days). 90.7 per cent of the eggs laid fledged young birds. Much detail on behavior at various stages of the breeding cycle is supplied.—R. F. J.
- SWANK, W. G. 1955. Nesting and production of the Mourning Dove in Texas. Ecol., **36**: 495-505.—Study of nesting and annual production. Active nests were found in every month except November and December.—S. C. K.
- TOMKINS, I. R. 1954. Life history notes on the American Oyster-catcher. Oriole, **19** (4): 38-44.—Fragmentary but important information on habitat requirements, courtship, and breeding habits. Incubation of one set of eggs lasted "about 28 days" after laying of the last egg; both sexes incubate; 3 eggs constitute a normal clutch; the young are fed on regurgitated oysters. Several comparisons are made with the European Oyster-catcher.—D. A. Z.
- TOMKINS, I. R. 1955. The summer schedule of the Eastern Willet in Georgia. Wilson Bull., **67**: 291-296, 2 figs.—Description of the activities, including nesting, of *Catoptrophorus semipalmatus semipalmatus* during the three months these shore-birds are on the Georgia coast, with a few notes on migrant *C. s. inornatus*.—J. T. T.
- TUCK, L. M., and H. J. SQUIRES. 1955. Food and feeding habits of Brünnich's Murre (*Uria lomvia lomvia*) on Akpatok Island. Journ. Fish. Res. Bd. Canada, **12**: 781-792.—A study based in part on food dropped by adult murrelets as they flew in to feed their young. This food was collected in a restricted area, daily. Some young were fed experimentally with this food; 13.4 grams were required to result in a gain in weight of one gram. Examination of stomach contents of 34 adults showed a predominance of crustaceans, but fish were also important in the adult diet.—D. A. Z.
- WELLER, M. W., I. C. ADAMS, JR., and B. J. ROSE. 1955. Winter roosts of Marsh Hawks and Short-eared Owls in central Missouri. Wilson Bull., **67**: 189-193, 2 tables.—Up to 80 or 90 individuals of *Circus hudsonius* and 13 of *Asio flammeus* roosted on the ground in an area with an abundance of *Microtus*. Pellet analyses showed that *Microtus* was the primary food eaten.—J. T. T.
- WHITAKER, L. M. 1955. Cardinal [*Richmondia cardinalis*] exploits Loggerhead Shrike's [*Lanius ludovicianus*] artificial food source. Wilson Bull., **67**: 213-214.—Food was raw meat or cheese.

MANAGEMENT AND CONSERVATION

- BOHL, W. H. 1956. Experiments in locating wild Chukar Partridges by use of recorded calls. Journ. Wildl. Mgt., **20**: 83-85.—Hand-cranked phonograph utilizing a crystal pick-up and battery-operated loudspeaker gave promising results in a preliminary experiment.—J. J. H.
- CAMPBELL, H., and L. LEE. 1956. Notes on the sex ratio of Gambel's and Scaled quail in New Mexico. Journ. Wildl. Mgt., **20**: 93-94.—For *Lophortyx g. gambelii*, males made up 51 per cent of the juveniles and 56 per cent of the adults. For *Callipepla squamata pallida* percentages were 47 (?) and 59 respectively.—J. J. H.

- DORNEY, R. S., and H. M. MATTISON. 1956. Trapping techniques for Ruffed Grouse. *Journ. Wildl. Mgt.*, **20**: 47-50.—Details of mirror traps on drumming logs of *Bonasa umbellus*, clover-leaf traps with leads in late summer and fall, and wooden bob-cages placed under leafy shelters in winter.—J. J. H.
- GLOVER, F. A. 1956. Nesting and production of the Blue-winged Teal (*Anas discors* Linnaeus) in northwest Iowa. *Journ. Wildlife Mgt.*, **20**: 28-46.—Females selected nest sites and built nests mostly from 7 to 10 A.M., 20 to 210 yards from water (aver. 79). Annual hatching success 21 and 23 per cent; mean number eggs hatched 9.3. Of 186 nests, 28 were judged to be re-nesting attempts. Young annually produced per breeding pair: 1.33 and 1.35. Nest predators were striped skunk, mink, raccoon. Mean brood size 6.2 at 2-3 weeks of age, 5.2 at 8-10 weeks. Six management procedures recommended.—J. J. H.
- PETERLE, T. J. 1956. Trapping techniques and banding returns for Michigan Sharp-tailed Grouse. *Journ. Wildl. Mgt.*, **20**: 50-55.—Tip-top was the most successful trap for *Pedioecetes phasianellus* in winter; cannon-projected nets, on dancing grounds in spring. Male birds were relatively sedentary; migrant winter flocks were thought to consist largely of females and young.—J. J. H.
- SALOMONSEN, F. 1954. Den dansk vildtstatistik (The Danish game statistics). *Dansk Ornith. Foren. Tidsskrift*, **48**: 123-126.—“It appears that a total of about 2 million birds are shot by hunters annually in Denmark.” Figures are given for various waterfowl, shore-birds, birds of prey, gulls, and certain other birds.—D. A. Z.
- WIGHT, H. M. 1956. A field technique for bursal inspection of Mourning Doves. *Journ. Wildl. Mgt.*, **20**: 94-95.

MIGRATION AND ORIENTATION

- ARNOULD-TAYLOR, W. E., and A. M. MALEWSKI. 1955. The factor of topographical cues in bird homing experiments. *Ecol.*, **36**: 641-646.—Suggests that topographical cues were involved in the homing experiments of Matthews, Kramer, St. Paul, and Hitchcock, which experiments some investigators have considered as giving evidence for a “special sense of direction” in birds.—S. C. K.
- COOCH, G. 1955. Observation on the autumn migration of Blue Geese. *Wilson Bull.*, **67**: 171-174, 1 fig.—Evidence that some flocks migrate from James Bay to the Gulf Coast in a single flight at fairly high altitudes.—J. T. T.
- CROWELL, J. B., JR. 1955. Behavior of migrating birds at sea off San Diego, California. *Wilson Bull.*, **67**: 305.—Five non-passerine and seven passerine species were observed a few miles at sea.
- SALOMONSEN, F. 1954. The migration of the European Redshanks (*Tringa totanus* [L.]). *Dansk Ornith. Foren. Tidsskrift*, **48**: 94-122.—Recoveries of ringed Danish Redshanks show that the birds use two migration routes: one is along the coast of Holland, France, and Spain; the other is across the mainland “heading directly for the Mediterranean coast of France and the Adriatic coast of Italy.” (This is also true for Danish populations of *Philomachus pugnax* and *Tringa glareola*.) The continental route is considered more important, yielding 96 recoveries, compared with 58 from the coastal route. Fall migration is early; birds sometimes reach wintering grounds in July. Birds using the continental route winter primarily in the Mediterranean region; those using the coastal route winter on the Atlantic coast of southern Europe. The winter distribution pattern is complex. “In W. Europe the populations winter at the Atlantic coasts in the same order in which the breeding areas are situated (Iceland birds north of British birds, etc.)” But Swedish and Norwegian populations winter in Africa, south

of all other populations. Spatial segregation of the different wintering quarters is believed to be of evolutionary importance. "In the Redshank the geographical variation in wing-length is due to selection in the winter-grounds." Average wing-lengths in the various wintering populations follow Bergmann's rule (increasing to the north), "but when arranged in the breeding areas the populations do not in their size variation follow any ecological rule."—D. A. Z.

SALOMONSEN, F. 1955. Sixth preliminary list of recoveries of birds ringed in Greenland. *Dansk Ornith. Foren. Tidsskrift*, **49**: 130-135. (In Danish with English summary.)—Recoveries of *Anser albifrons*, *Somateria* sp., *Larus glaucooides* (or *L. hyperboreus*), *Uria lomvia*, *Fratercula arctica*, *Oenanthe oenanthe*, and *Plectrophenax nivalis*.—D. A. Z.

WOODFORD, J. 1953. Migration of the Blue Jay. *Intermediate Naturalist*, **8**: 29.—In one ten-hour period on September 21, 1953, 9,735 *Cyanocitta cristata* were counted south of Amherstburg, Ontario. Most flew across the Detroit River and continued westward or southwestward. The majority flew along the shore until opposite Boblo Island before heading across, though a few crossed south of the island.—D. A. Z.

PHYSIOLOGY

DAS, B. C., and A. V. NALBANDOV. 1955. Responses of ovaries of immature chickens to avian and mammalian gonadotrophins. *Endocrin.*, **57**: 705-710.

GOODWIN, K., R. K. COLE, F. B. HUTT, and B. A. RASMUSEN. 1955. Endocrine relationships in males of a relatively infertile strain of White Leghorn fowls. *Endocrin.*, **57**: 519-526.

KOSAK, A. I. 1955. The extraction of the pigment from Touraco feathers by soap solution. *Ohio Journ. Sci.*, **55**: 339.—An alkaline soap used to wash a female Touraco at the Cincinnati zoo caused the turacin to dissolve into the bath water.—H. C. S.

MARSHALL, A. J., and H. J. DE S. DISNEY. 1956. Photostimulation of an equatorial bird (*Quelea quelea*, Linnaeus). *Nature*, **177**: 143-144.—Male birds exposed to 17 hours of light daily showed testicular response; males given only 5 minutes additional daily light showed very little response compared to controls. Females failed to respond. It is concluded that Wolfson's summation hypothesis has no validity.—H. C. S.

WOODIN, A. M. 1955. The free amino-groups of soluble feather keratin. *Nature*, **176**: 1117.

TAXONOMY

BURMA, B. H. 1954. Reality, existence, and classification: a discussion of the species problem. *Madroño*, **12**: 193-209.—Because it is unlikely that the term *species*, "with its overpowering load of undesirable connotations," will be discarded, and "all taxonomic units of whatever kind should be recognized explicitly for what they are—arbitrarily erected, man-made constructs. . . . The idea of the reality of evolving populations of individuals should always be kept in the forefront of any discussion of the evolutionary process."—D. A. Z.

PARKEE, K. C. 1955. Notes on the molts and plumages of the Sparrow Hawk. *Wilson Bull.*, **67**: 194-199.—*Falco sparverius sparverius* has a post-juvinal body molt. Immature males may be recognized from adults by plumage characteristics; age of females is difficult to determine.—J. T. T.

- PRIGOGINE, A. 1954. Un nouveau Bulbul de l'Est du Congo Belge. *Rev. Zool. Bot. Afr.*, **49**: 347-349.—*Chlorocichla laetissima schoutedeni* new subspecies, Mt. Kabobo, 29° 2' E., 5° 8' S., Belgian Congo.
- PRIGOGINE, A. 1955. *Hyltiota affinis* Reichenow est bien la femelle de *Hyltiota violacea* Verreaux. *Rev. Zool. Bot. Afr.*, **51**: 223-228.
- PRIGOGINE, A. 1955. Une nouvelle Fauvette du genre *Apalis* du Congo Belge. *Rev. Zool. Bot. Afr.*, **51**: 240-242.—*Apalis kaboboensis*, new species, Mt. Kabobo, 29° 2' E., 5° 8' S., Belgian Congo.
- STALLCUP, W. B. 1954. Myology and serology of the avian Family Fringillidae, a taxonomic study. *Univ. Kansas Publ., Mus. Nat. Hist.*, **8**: 157-211, 23 figs.—Original contributions on serology and on the myology of the leg are considered, along with studies by others, in determining the relationships of the finch-like birds. The richmondenines, emberizines, and tanagers are considered closely related and are made subfamilies of the Fringillidae; the Estrildinae and the Carduelinae are placed in a Family Carduelidae; none of these groups is considered close to the Passerinae. *Spiza* is considered an aberrant richmondenine.—R. W. S.
- SUTTON, G. M. 1955. A new race of Olivaceous Woodcreeper from Mexico. *Wilson Bull.*, **67**: 209-211.—*Sittasomus griseicapillus harrisoni*, new subsp., from Rancho del Cielo, Gomez Farias, Tamaulipas, Mexico, elevation 3300 feet.
- WOOLFENDEN, G. E. 1955. Spring molt of the Harris Sparrow [*Zonotrichia querula*]. *Wilson Bull.*, **67**: 212-213.

MISCELLANEOUS

- AxTELL, H. H. 1955. Authorities make too many mistakes. *Kingbird*, **5** (2): 37-39.—Apparently *all* field ornithologists make frequent errors in sight identification of which they often remain unaware. There should exist "a popular recognition of the unreliability of sight records as usually compiled, and . . . a desire for greater reliability, with an increased interest in adopting scientific methods of verification." Complete written records of important observations should be filed permanently in a known place where they are available to other workers. This paper deserves reprinting in other periodicals.—D. A. Z.
- GUIGUET, C. J., and F. L. BEEBE. 1954. The birds of British Columbia, (1) the woodpeckers, (2) the crows and their allies. (Victoria. B. C. Provincial Mus. Dept. of Education Handbook No. 6) 51 pp. 50 cents.—Brief popular accounts and drawings of 12 woodpeckers and 7 corvids.—D. A. Z.
- HILL, W. P. 1956. Birds between the monadnocks. (Transcript Printing Co., Peterborough, N. H.) 72 pp. Price, \$1.00.—This "field guide," designed for use in southwestern New Hampshire, presents sketchy information on field-marks, local distribution, status, and habitat.—D. A. Z.
- MILLER, L. 1955. The auxiliary barrel. *Wilson Bull.*, **67**: 297-301, 1 fig., 2 tables.—Directions are given for making auxiliary barrels to adapt shotguns for collecting small specimens.
- SAWYER, E. J. 1955. Bird houses, baths, and feeding shelters, how to make and where to place them. (Bloomfield Hills, Mich. Cranbrook Inst. Sci. Bull. No. 1, 5th edition.) 36 pp. 50 cents.