RECENT LITERATURE

EDITED BY GLEN E. WOOLFENDEN

Anatomy and Embryology

Becker, R. 1959. Die Strukturanalyse der Gefiederfolgen von *Megapodius freyc. reinw.* und ihre Beziehung zu der Nestlingsdune der Hühnervogel. Rev. Suisse Zool., **66:** 411–527.—The feathers and plumages in *Megapodius* are analyzed and compared to the nestling down in chickens.—W. J. B.

Brinckmann, A. 1958. Die Morphologie der Schmuckfeder von *Aix galericulata* L. Rev. Suisse Zool., **65:** 485–608.—A detailed study of the elaborate courtship plumes of the Mandarin Duck. Attention was given to the shape of the curved shaft and barbs of the feathers of the wing "sails" and to the structural basis for their color. —W. J. B.

Durrer, H. 1962. Schillerfarben beim Pfau (*Pavo cristatus* L.). Eine elektronenmikroskopische Untersuchung. Verh. naturf. Ges. Basel, **73:** 304–324.—Describes the structural basis for the iridescent colors in the peacock on the basis of electron microscopy, giving special attention to the structure of the "eye" of the display plumes.—W. J. B.

Durrer, H., and W. Villiger. 1962. Schillerfarben der Nektarvogel (Nectariniidae). Eine elektronenmikroskopische Untersuchung an *Nectarinia sperata brasiliana* (Gm) —Sumatra und *Nectarinia cuprea septentrionalis* (Vincent)—Luluabourg, Kasai, Kongo. Rev. Suisse Zool., **69:** 801–814.—An electron microscope study of the iridescent feather of several sunbirds. The thicknesses of the thin plates of melanin were measured; the thickness and spacing of these plates determines the color of the reflected light.—W. J. B.

Goodman, D. C. 1964. The evolution of cerebellar structure and function. Amer. Zool., **4:** 33–36.—Functional evidence of cerebellar development gained by chronic electrode techniques. Catfish, bullfrog, *Caimen*, duck, and rat were compared. Vermal zone patterns were found in the medial one-third in the duck, and stimulation patterns suggested large hemispheric areas therein.—D. H. L.

Goodman, D. C., J. A. Horel, and F. R. Freemon. 1964. Functional localization in the cerebellum of the bird and its bearing on the evolution of cerebellar function. J. Comp. Neurol., **123:** 45–53.—The cerebellar cortex of 27 unanesthetized ducks (*Anas "domesticus"*) was stimulated through permanently implanted electrodes at 31 loci. Characteristic slow, tonic movements were evoked which involved the hindlimbs, neck, head, and occasionally the wings. The cerebellum is divided functionally into four areas—three longitudinal cortical zones and the floccular portion of the flocculonodular lobe. Birds conform to the zonal theory of cerebellar organization. Compares the functioning of the cerebellum of vertebrates of other classes and suggests a pattern for its evolution.—G. E. W.

Kartaschew, N. N., and W. D. Iljitschow. 1964. Uber das Gehörorgan der Alkenvögel. J. f. Orn., **105:** 113–136.—A detailed study of the outer and middle ear in several species of Alcidae. The morphology is well described, as are also the functional significance and the relationship between these structures and the ecology of the birds. Several factors influence the hearing apparatus, but do not act in harmony, so the structure of the ear is a "compromise." The important factors are the type of food—fish vs. invertebrates—which influences the device that closes the external meatus, the amount of calling in the colony, and whether or not the birds nest in holes.—W. J. B.

MÜLLER, H. J. 1964. Morphologische Untersuchungen am Vogelschädel in ihrer Bedeutung für die Systematik. J. f. Orn., **104:** 67–77.—A general review of the value of cranial morphology in studies on the classification of birds, based mainly on Bock's study of the palatine process of the premaxilla in passerines and the author's study of the ratite skull.—W. J. B.

PORTMANN, A. 1963. Die Vogelfeder als morphologisches Problem. Verh. naturf. Ges. Basel, **74:** 106–132.—A general paper on the development and morphology of feathers reviewing much of the recent work done at Basel. Discusses various functions of feathers, and suggests possible causes for their evolution.—W. J. B.

QUAY, W. B., AND A. RENZONI. 1963. Studio comparativo e sperimentale sulla structure e citologia della epifise nei *Passeriformes*. Riv. di Biol., **41:** 363–391.—The pineal organ of adult Passeriformes, as based on 24 species of 11 families, contains nerve cell bodies and perhaps sensory and secretory cells. Structural variations, which may be of taxonomic value, suggest different physiological types. Increased photoperiod resulted in increased size of parenchymal nuclei in an adult female *Passer domesticus*. Bilingual reprints (Italian and English) available.—G. E. W.

SCHMEKEL, L. 1962. Embryonale und frühe postembryonale Erythropoiese in Leber, Milz, Dottersack und Knochenmark der Vögel. Rev. Suisse Zool., **69:** 559–615.—Describes the formation of erythrocytes in birds and compares nidifugous and nidicolous species. Activity in the red bone-marrow begins in the femur at about hatching time in nidicolous birds, and at about the 14th day of incubation in nidifugous birds.—W. J. B.

STEGMAN, B. 1963. Der *Processus internus indicis* im Skelett des Vogelflügels. J. f. Orn., **104:** 413–423.—The *processus internus indicis* is a small projection on the posterior-distal corner of the subterminal phalanx of the middle digit of the wing in certain birds. The process serves to guide the tendon of *M. interosseus palmaris*, which pulls the terminal phalanx backwards to its insertion near the distal tip of this element. It is especially well developed in birds with long, pointed wings.—W. J. B.

SULLIVAN, G. E. 1962. Anatomy and embryology of the wing musculature of the domestic fowl (*Gallus*). Australian J. Zool., **10:** 458–518.—Describes the development of wing muscles in chickens. The homologies of these muscles with those in mammals, reptiles, and amphibians are discussed. Sullivan supports the view that the digits in birds are II, III, and IV, and names the muscles accordingly.—W. J. B.

TYLER, C. 1964. Einige chemische, physikalische und strukturelle Eigenschaften der Eischalen. Ein Rückblick. J. f. Orn., **104:** 57–63.—A general review of work on the structure of the eggshell; includes a good bibliography, especially of the extensive work by Tyler.—W. J. B.

WERNER, C. F. 1962. Allometrische Grössenunterschiede und die Wechselbeziehung der Organe (Untersuchungen am Kopf der Vögel). Acta Anat., **50:** 135–157.—The braincase of 150 species of birds were measured, and ratios made between these measurements and the weight of the body, skull, and brain. The relative sizes and forms of the occipital condyles, foramina magna, labyrinths, semicircular canals, and tympanic membranes are highly correlated with the type of cranium. Caution is expressed about premature hypotheses about isolated "functional adaptation" as a factor of evolution using the tympanic membrane as an example.—W. J. B.

WERNER, C. F. 1963. Schädel-, Gehirn- und Labyrinthtypen bei den Vögeln. Morph. Jb., **104:** 54–87.—A detailed analysis and correlation of the shape of the skull, brain, and inner ear in birds. Allometric growth is documented and discussed.—W. J. B.

EVOLUTION AND GENETICS

CLARK, G. A., JR. 1964. Life histories and the evolution of megapodes. The Living Bird. Third Annual of the Cornell University Laboratory of Ornithology, pp. 149–167.—The probable evolutionary history of the Megapodiidae suggests the existence of two groups in this monophyletic family: the three genera of brush turkeys and *Leipoa*, in which territoriality and parental temperature regulation of the mounds is characteristic; and the more "advanced" *Megapodius* and *Macrocephalon*, in which incubation is accomplished by the sun or volcanic heat.—G. E. W.

DILGER, W. C. 1964. Evolution in the African parrot genus *Agapornis*. The Living Bird (see above), pp. 135–148.—Behavior and morphology of living species of the genus *Agapornis* suggest the evolutionary pathway of the more advanced types (the *personata* complex). A comparison of *Agapornis* and its closest living relative, *Loriculus*, suggests characteristics of their common ancestor.—G. E. W.

GILLIARD, E. T. 1963. The evolution of bowerbirds. Sci. Amer., **209** (2): 38–46.—Avian arena behavior, an advanced courtship pattern found in 12 different avian families, apparently had similar origins. Bower behavior developed from arena behavior. Some arena birds are now "on the way to becoming builders of bowers." In bowerbirds *per se*, "ordinary" birds simply develop a pair bond and tend the nest. Arena behavior is the next stage if the pair bond is impermanent, and this is accompanied by plumage specialization. Bower building is the highest stage. In this, sexual selection is transferred to objects and the males are dully colored.—D. W. J.

MENGEL, R. M. 1964. The probable history of species formation in some northern wood warblers (Parulidae). The Living Bird (see G. A. Clark, Jr., above), pp. 9–43.—An outstanding paper relating the Tertiary and Pleistocene history of North America to the distributions and taxonomic relationships of 46 continental and 2 insular species of forest-adapted wood warblers. The hypothesis is that some parulids in the temperate deciduous forest in eastern North America at the close of the Pliocene became adapted to the northern coniferous forest when that forest was forced deep into the southeast by Pleistocene glaciation. Upon glacial recession a transcontinental coniferous forest formed which was occupied by these newly-adapted parulids. Subsequent glacial advance permitted eastern and western differentiates to develop in isolation. The process continued in the west where montane coniferous forest "islands" formed during interglacials. Repetition of the process through four glacial cycles could have resulted in the differentiation of virtually all the western species of wood warblers. Among the numerous facts listed to support the thesis is the restriction of all four endemic genera of North American wood warblers to the eastern deciduous forest. Many other additional supportive evidences and interesting concomitant deductions are given.—G. E. W.

ROLLIN, N. 1964. Non-hereditary and hereditary abnormal plumage. Bird Research, **2**: 1–44.—Many cases of abnormal plumage due to variation in amount of pigment are non-hereditary; food, humidity, injury, bi-coloration, age, and senility are some known causes. Dietary deficiencies can produce abnormal white plumage and appear to be the major reason why edificarian populations frequently exhibit abnormal plumage. Hereditary and non-hereditary plumages can be distinguished in certain instances in various ways. Normal white feathers typically have black pigment at their bases, abnormal whites lack pigmentation. Abnormal plumage probably plays only a minor role in the evolution of plumage. Three basic groups of abnormal plumage are proposed: hereditary types occurring infrequently in many species, non-hereditary types occurring with slightly greater frequency in many species, and non-

hereditary types occurring relatively frequently in a few species, usually near the haunts of man. An important paper.—G. E. W.

THIELCKE, G., AND K. E. LINSENMAIR. 1963. Zur geographischen Variation des Gesanges des Zilpzalps, *Phylloscopus collybita*, in Mittel- und Südwesteuropa mit einem Vergleich des Gesanges des Fitis, *Phylloscopus trochilus*. J. f. Orn., **104:** 372–402.—The songs of the sibling species, Chiffchaff and Willow Warbler, were recorded from many individuals over a large geographic area, and analyzed on a spectrograph. Two song forms of the Chiffchaff—"normal" and "Spanish"—and one of the Willow Warbler were described; the "Spanish" Chiffchaff song is restricted to Spain and bordering lands. Songs of each species were played back to free-living males in southwest Germany in each possible combination. All males reacted more to their own form of song than to that of the sibling species. The normal Chiffchaff reacted less to the "Spanish"' Chiffchaff song than to its own, but still more than to that of the Willow Warbler. A reconstruction of the history of the distribution of these warblers was suggested from this evidence.—W. J. B.

GENERAL BIOLOGY

BENSON, C. W., R. K. BROOKE, AND C. J. VERNON. 1964. Bird breeding data for the Rhodesias and Nyasaland. Occ. Pap. Natl. Mus. S. Rhodesia., **27**B: 30–105.—A most valuable compendium of all breeding records for the area. Data for S. Rhodesia are recorded separately from N. Rhodesia, and Nyasaland. Nesting records are adjusted for the time of egg laying and are given by months, and clutch sizes are indicated. Despite marked rainy and dry seasons, a surprising number of species have been found breeding throughout the year.—M. A. T.

BERGSTROM, E. A. 1964. Band loss by Blue Jays. Bird-Banding, **35:** 42–44.—Of 14 rebanded individuals, 3 subsequently lost the older band.—G. W. C.

BEZZEL, E. 1963. Zum Durchzug und zur Brutbiologie von Grasmücken (*Sylvia*) nach Fängen und Ringfunden im Ismaninger Teichgebiet, Oberbayern. Vogelwarte, **22:** 30–35.—Comments on migration and breeding biology of several species of the warbler genus *Sylvia* based on banding returns. Special attention was given to faithfulness to breeding sites and mates of previous years.—W. J. B.

BOGGS, G. O. 1961. Notas sobre las aves de "El Centro" en el Valle Medio del Río Magdalena. Colombia. Novedades Colombianas, **1:** 401–424.—The author spent a year in the area and gives data on abundance and nesting. (In Spanish.)—E. E.

BORROR, D. J. 1964. Songs of the thrushes (Turdidae), wrens (Troglodytidae), and mockingbirds (Mimidae) of eastern North America. Ohio J. Sci., **64:** 195–207.—A description of sound spectrograms of three families (17 species) well known for their singing ability.—H. C. S.

BURGERJON, J. J. 1964. Some census notes on a colony of South African Cliff Swallows *Petrochelidon spilodera* (Sundevall). Ostrich, **35:** 77–85.—Two years' data on egg laying, incubation and hatching time, hatching success, and return to the previous year's nest.—M. A. T.

BUSSE, P. 1962. [The daily rhythm of the rook (*Corvus frugilegus* L.) in a nesting colony in Warszawa.] Acta Onithol., **6:** 209–230. (In Polish; English and Russian summaries.)

CAMPBELL, B. 1964. Mallards killing and eating House Sparrows. Brit. Birds, **57:** 133–134.

CLANCEY, P. A. 1964. The migratory status of the Pygmy Kingfisher in South Africa. Ostrich, **35:** 60.—*Ispidina picta* is migratory in South Africa, presumably wintering in equatorial regions.—M. A. T.

CLANCEY, P. A. 1964. Storks breeding in Zululand—a correction. Ostrich, **35:** 67.—It was the black stork, *Ciconia nigra*, not the white stork, *C. ciconia*, that bred in Zululand in 1908.—M. A. T.

DEXTER, R. W. 1964. Nesting of three species in one tree. Bird-Banding, **35:** 39–40.—Rose-breasted Grosbeak, Blue Jay, and House Sparrow in English hawthorn at Kent, Ohio.—G. W. C.

DZUBIN, A. 1964. Two possible wild hybrids of the White-fronted Goose × Snow Goose. Blue Jay, **22:** 106–108.

FREDGA, K. 1964. [The choice of prey of Tengmalm's Owl (*Aegolius funereus*) in central Sweden.] Vår Fågelvärld, **23:** 103–118. (In Swedish; English summary.)

GLASGOW, L. L., AND H. A. JUNCA. 1962. Mallard foods in southwest Louisiana. Proc. Louisiana Acad. Sci., **25:** 63–74.—Stomach contents analyzed.—M. K. R.

GOODPASTURE, K. A. 1963. Age, sex, and wing length of tower casualties: fall migration, 1962. Bird-Banding, **34:** 191–199.—Data are given for 316 birds of 24 species collected at two television towers in Nashville, Tennessee, following three instances of mass mortality in September and October. Adult Magnolia Warblers increased in frequency relative to young between 6 September and 17 October; adult Red-eyed Vireos decreased in frequency relative to young between 6 September and 6 October. Correlations between age, sex, wing length, and plumage characteristics are made for the Red-eyed Vireo and several warbler species.—G. W. C.

HALL, G. A. 1964. Breeding-bird censuses—Why and how. Aud. Field Notes, **18:** 413–416.—Simple instructions, with many practical hints, on how to conduct a breeding-bird count.—E. E.

HARPER, J. A. 1963. Calcium in grit consumed by juvenile pheasants in east-central Illinois. J. Wildl. Mgmt., **27:** 362–367.—Decreasing amounts of calcitic grit in the gizzards of young pheasants as they grew older, suggests that they select grit according to physiological needs.—J. P. R.

HARRIS, M. P. 1964. Measurements and weights of Great Black-back Gulls. Brit. Birds, **57:** 71–75.—About 96 per cent of adults can be sexed by bill measurements. —H. B.

HARRISON, C. J. O. 1964. "Industrial" discoloration of House Sparrows. Brit. Birds, **57:** 85.—Bleaching by airbourne chemicals considered to be improbable.—H. B.

HÖHN, E. O., AND J. R. BARRON. 1963. The food of Wilson's Phalarope (*Steganopus tricolor*) during the breeding season. Canadian J. Zool., **41:** 1171–1173.

HOLDEN, F. M. 1964. Discovery of the breeding area of the Kirtland's Warbler. Jack-pine Warbler, **42:** 278–290.—Notes on the 1903 expeditions of Frothingham and Gale and N. A. Wood to Oscoda and Crawford counties, Michigan.—R. B.

JOHNSGARD, P. A. 1964. Observations on the biology of the Spectacled Eider. Wildfowl Trust Fifteenth Ann. Rept., pp. 104–107.—Includes notes on nesting densities, territoriality, and general behavior.—P. A. J.

KÄLLANDER, H. 1964. [Irruption in 1958 of Tengmalm's Owl (*Aegolius funereus*) into central Sweden and some aspects of the distribution of the species in Sweden.] Vår Fågelvärld **23:** 119–135.—Evidently the invasion coincided with a peak year for *Clethrionomys* and *Apodemus* and also with a large immigration of Hawk Owls. Tengmalm's Owl does not prefer forests, but woods with openings such as clearings, bogs, and hay fields. (In Swedish; English summary).—M. D. F. U.

KANAI, I. 1964. Measurement analysis of swallow's nest. Misc. Repts. Yamashina's Inst. Ornith. and Zool., **4:** 31–41.—Analysis of 70 nests of *Hirundo rustica* in Tokyo. In addition to nest measurements, data were obtained on rate of construction. On the average, swallows brought mud to the nest site every 73 seconds, spending 34

seconds at the site. Work took place chiefly in morning hours, and construction time averaged 10 days. (In Japanese; English summary.)—K. C. P.

KENT, A. K. 1964. Coot caught by a swan mussel. Brit. Birds, **57:** 32–33.

KUMERLOEVE, H. 1964. Zur Sumpf- und Wasservogelfauna der Türkei. J. f. Orn., **105:** 307–325.—General notes on the marsh and water birds of Turkey based partly on observations made on an expedition in the spring of 1962. Of the 89 species recorded, 62 probably bred in Turkey. A number of forms were recorded for the first time as breeding birds; these are listed in the summary.—W. J. B.

KURODA, N. 1963. A comparative study of the chemical constitutions of some bird eggs and their adaptive significance. Misc. Repts. Yamashina's Inst. Ornith. and Zool., **3:** 311–333.—Analysis of some characteristics of eggs of several species of wild aquatic birds and domestic birds; often supplements data published by Romanoff and Romanoff. A correlation is suggested between proportion of crustacean food items and relative redness of yolk, although Sooty Terns have orange yolks, and noddies, yellow, with essentially similar diets. Yolk weight relative to total egg weight increases with increased precocity of young. Shell weight is proportionately greater in precocial birds and in larger birds. There is a correlation between shell thickness and roughness of rocks at breeding sites in murres. Decomposition rate of eggs varies inversely with shell thickness. Eggs were also analyzed for amount of water, protein, lipids, carbohydrates, calories, vitamins, and salt, and the shells for calcium. Several adaptive correlations are suggested. (In Japanese; long English summary.)—K. C. P.

KURODA, N. 1964. Utilization of group nest-boxes by the Grey Starling and experiments with colour paints. Misc. Repts. Yamashina's Inst. Ornith. and Zool., **4:** 42–52.—Experiments with two types of multiple-cell nest boxes, testing position and color preference of *Sturnus cineraceus*. The relative influence of cell position, color preference, and effect of territorality not completely worked out. (In Japanese; English summary.)—K. C. P.

KUZYAKIN, A. P. 1963. [On the biology of the Long-billed Murrelet.] Ornithologica [Moscow] **6:** 315–320.—The author collected a nest (constructed of a lichen, *Bryopogon*), egg, and male of *Brachyrhamphus marmoratum* 6.8 m up in a larch 6–7 km from the sea near Okhotsk on 17 June 1961. He overlooked a record of a similar egg removed from the oviduct of a specimen (Sutton and Semple, *Auk* **58:** 580–581, 1941). Speculations on how a chick might reach the sea. (In Russian.)—R. S. P.

LACKI, A. 1962. [Observations on the biology of clutches of the House Sparrow, *Passer domesticus* (L.).] Acta Ornithol. **6:** 195–207.—Data on nest site, clutch size, nestling mortality (27 per cent), and food of the nestlings were gathered and evaluated. (In Polish; English and Russian summaries.)—M. D. F. U.

LAWSON, W. J. 1964. Breeding of the Black Heron in southern Africa. Ostrich, **35:** 58–59.—A rare breeder in southern Africa; none of the six nests recorded was successful.—M. A. T.

LITTLE, [MISS] J. DE V. 1964. Notes on the breeding behavior of the Paradise Flycatcher. Ostrich, **35:** 32–41.—Detailed observations of a single nesting.—M. A. T.

LONG, R. 1964. Exceptional longevity in Reed Warblers. Brit. Birds, **57:** 128–129. Two banded birds still alive at ages of 11 and 12 years.—H. B.

LØVENSKIOLD, H. L. 1964. Avifauna Svalbardensis. Norsk Polarinstitut, Skrift., **129:** 1–460. Price, Kr. 44.—A full account of 93 species of birds on Spitsbergen and adjacent Norwegian Arctic Ocean islands. The largest number occur on Vestspitsbergen (the largest island); 22 are regarded as common breeders and 17 as rare

breeders. The paper contains much useful climatic and oceanographic information as well as details regarding the birds and is based on eight annual expeditions by the author.—E. E.

MACKIE, R. J., AND H. K. BUECHNER. 1963. The reproductive cycle of the chukar. J. Wildl. Mgmt., **27:** 246–260.—A two-year study in southeastern Washington with descriptions of pairing, growth and regression of gonads, egg-laying, incubation, and renesting.—J. P. R.

MCLACHLAN, G. R. 1964. Tenth ringing report. Ostrich, **35:** 101–110.—Birds ringed in South Africa and recoveries are listed for the period 1 July 1959–30 June 1960. Several waders and swallows, *Hirundo rustica*, were recovered in Russia. Cattle Egrets were recovered in Zambia and Tanzania.—M. A. T.

MUMFORD, R. E. 1964. The breeding biology of the Acadian Flycatcher. Univ. Michigan Mus. Zool. Misc. Publ. no. 125: 1–50.—A three-year study of *Empidonax virescens* in Livingston County, Michigan, near the northern limit of its range. The *tee chup* (= *spit chee*) can be considered a territorial song. Young birds did not develop this note while on the breeding grounds. Females apparently select the nest site after sitting in several forks. Males sit across forks but do not let their bodies down into them; the significance of males' activities is uncertain. Most nests were in trees on the slopes of kettle holes; an open space below the nest is important since birds often enter the nest by flying up from beneath and leave by diving over the rim. The female constructs the nest; once a nest of the previous season was re-used. The female incubates, being attentive about 73 per cent of the daylight hours, and broods, discontinuing the practice after the ninth day, about five days before the young leave the nest. Both sexes feed the young about equally and essentially the same diet they themselves eat. Fledglings were fed at least 14 days after leaving the nest; a fledgling cowbird was fed at least 17 days. Of four second broods attempted, only one was successful.—R. B.

NICKELL, W. P. 1964. Rough-winged Swallow recovered in a Bank Swallow colony. Bird-Banding, **35:** 40–41.

NICKELL, W. P. 1964. Returns on aged Cardinal. Bird-Banding, **35:** 41.—At least 11 years and 6 months old.—G. W. C.

OLSSON, V. 1964. Studies of less familiar birds: Parrot Crossbill. Brit. Birds, **57:** 118–123.—Observations on three nestings of the Parrot Crossbill in Sweden. Laying dates were coordinated with development of pine crop. Seven photographs.—H. B.

PATERSON, A. 1964. Tawny Owl attacking fox in winter. Brit. Birds, **57:** 203.

PEETERS, H.-J. 1963. Einiges über den Waldfalken *Micrastur semitorquatus*. J. f. Orn., **104:** 357–364.—Observations on captive and free-living *Micrastur semitorquatus*. These hawks are adapted, morphologically and behaviorally, to life in deep forests. In spite of its close convergence to *Accipiter*, *Micrastur* is a member of the Falconidae.—W. J. B.

PEPPER, A. Y. 1964. Notes on the Red-eared Firetail in captivity. Western Australian Nat., **9:** 49–57.—General behavior, feeding habits, vocalizations, breeding and nesting behavior, and plumage changes with age are described for *Zonaeginthus oculatus*. —M. K. R.

RICHARDS, G. A. 1964. Fulmar incubating eggs of Herring Gull with its own. Brit. Birds, **57:** 31.

ROBERTSON, K. W. 1964. Juvenile Moorhen brooding eggs. Brit. Birds, **57:** 123–124.

ROWAN, M. K. 1964. An analysis of the records of a South African ringing station. Ostrich, **35:** 160–187.—Reports banding of 13,182 birds of 88 species at Johannesburg. Recovery rate was 0.46 per cent.—M. K. R.

RYDER, J. P. 1964. A preliminary study of the breeding biology of Ross's Goose. Wildfowl Trust Fifteenth Ann. Rept., pp. 127–137.—Studies in the Perry River district indicate that nesting territories may be as small as 150 sq. ft., eggs are laid daily, and there is a high (96.7 per cent) proportion of successful nests. Only 27 per cent of 34 broods exhibited polymorphism.—P. A. J.

SCHMIDT, R. K. 1964. The Lesser Double-collared Sunbird *Cinnyris chalybeus* (Linnaeus) in the southwestern Cape. Ostrich, **35:** 86–94.—Primarily breeding biology. —M. A. T.

SCHÖNWETTER, M. (ed. W. Meise). 1963–1964. Handbuch der Oologie. Lief. 8 and 9. Pp. 449–512, 513–576. Akademie-Verlag, Berlin. Price, DM. 14 per fascicle.—These two fascicles continue the valuable handbook of oology (for review see *Auk,* **80:** 390–391, 1963). Lieferung 8 completes the Charadriiformes, includes the Columbiformes, and begins the Psittaciformes. Lieferung 9 concludes the Psittaciformes, includes the Columbiformes, and covers most of the Cuculiformes through the American parasitic species *Tapera naevia* and *Dromococcyx phasianellus* (which are placed after the Old World parasitic cuckoos, rather than in the Peters' Check-list order). There is a useful discussion of cuckoo parasitism and a color plate of eggs (chiefly of Charadriiformes) in Lieferung 9. (In German.)—E. E.

SIEGFRIED, W. R. 1964. Observations on the growth of young Spurwing Geese (*Plectropterus gambensis* (L.)). Ostrich, **35:** 64–65.—A table indicating growth of tarsus, culmen, and bill width, and increase in body weight of one male and female in relation to age, to 78 days.—M. K. R.

SIMKISS, K. 1963. Bird flight. London, Hutchinson Educational, 96 pp.—A short discussion of flight and some morphological adaptations of birds. The book is designed for amateurs and is simply and clearly written with a minimum of technical terms but without a loss of accuracy. Recommended as an introduction to many aspects of avian life.—W. J. B.

SKEAD, C. J. 1964. The overland flights and the feeding habits of the Cape Parrot, *Poicephalus robustus* (Gmelin) in the Eastern Cape Province. Ostrich, **35:** 202–223.

SOKOLOWSKI, J. 1962. Studies on the individual variation and biology of the Goldfinch, *Carduelis carduelis* (L.) in Poland. Acta Ornithol., **7:** 33–67.—Color and mensural variations of about 150 Polish specimens seem to conform with Bergmann's and Gloger's rules. Observational data on habitat, feeding, and breeding ecology are included.—M. D. F. U.

STEWART, P. A. 1963. Abnormalities among Brown-headed Cowbirds trapped in Alabama. Bird-Banding, **34:** 199–202.—Of 7,537 males and 748 females captured during the winter of 1960–61 at Montgomery, Alabama, 292 males and 29 females possessed externally visible abnormalities.—G. W. C.

STEYN, P. 1964. Observations of the Brown Snake-eagle *Circaetus cinereus.* Ostrich, **35:** 22–31.—Information, from a nesting in S. Rhodesia observed for six months, includes data on hunting methods, nest, egg, hatching, and parental and other behavior. Growth is described in detail, and graphs illustrate the weekly increment for the wing, tail, culmen, and tarsus of the eaglet.—M. K. R.

STRESEMANN, E. 1963. Zeitraum und Verlauf der Handschwingen-Mauser palaearktischer Möwen, Seeschwalben und Limicolen. J. f. Orn., **104:** 424–435.—The molt of the primaries in palearctic gulls, terns, and shorebirds is described. Some characteristics of the life history of the birds, such as type of migration, strongly influence certain aspects of molt but not the pattern of the molt so this characteristic only is useful in indicating relationships.—W. J. B.

SUTTON, G. M. 1963. Interbreeding in the wild of the Bob-white (*Colinus virginianus*) and Scaled Quail (*Callipepla squamata*) in Stonewall County, Northwestern Texas. Southwestern Nat., **8:** 108–111.

THOMPSON, D. Q., AND R. A. PERSON. 1963. The eider pass at Point Barrow, Alaska. J. Wildl. Mgmt., **27:** 348–356.—King and Pacific eiders breeding east of Point Barrow migrate past the "Duck Camp," a spectacular shooting camp where Eskimos have hunted since prehistoric times. Data are presented on the number and species of eiders, sex and age segregation, weights, molts, and kill by Eskimos for 1953.—J. P. R.

WACKERNAGEL, H. 1964. Brutbiologische Beobachtungen am Waldrapp, *Geronticus eremita* (L.), im Zoologischen Garten Basel. Ornith. Beob., **61:** 49–60.—Observations on the breeding biology of a captive flock of Red-cheeked Ibis include data on displays, copulation, and nesting. There is one brood per season; complete clutches occur from mid-March to mid-May. Incubation lasts 27–28 days, fledging occurs in 46–51 days, and maturity is reached in three years. Both parents share in incubating and rearing. Data on the eggs and developing young are given. Six good line drawings depict various postures. (In German; brief English summary.)—G. E. W.

WATERS, E. 1964. Observations on the St. Kilda Wren. Brit. Birds, **57:** 49–63.

WHARTON, W. P. 1964. Nine-year-old chickadee. Bird-Banding, **35:** 41.—Black-capped Chickadee.—G. W. C.

WINTERBOTTOM, J. M. 1964. Report on the nest record card scheme. Ostrich, **35:** 42–44.—All nesting records for southern Africa are now kept on standardized cards at the Percy Fitzpatrick Institute, University of Cape Town. As of February, 1963, over 17,000 cards covered 522 species.—M. A. T.

WINTERBOTTOM, J. M. 1964. Notes on the wagtails of *Motacilla* of Southern Africa. Ostrich, **35:** 129–141.—Information was compiled, chiefly from questionnaires sent to fifty observers on distribution, habitats, populations, interrelations, movements, breeding seasons, copulation, nest-sites and eggs, clutch-size, incubation, feeding of young, fledging, parasitism and disease, roosts, food, tameness, ringing, and miscellaneous behavior.—M. K. R.

YAMAMOTO, H. 1963. Photographic identification of four large gulls in young plumage. Misc. Repts. Yamashina's Inst. Ornith. and Zool., **3:** 358–362, 4 plates.—Photographic studies of various age classes of *Larus argentatus vegae, L. schistisagus, L. glaucescens,* and *L. hyperboreus pallidissimus.* Although there is much individual variation in markings and body size, certain patterns as well as bill-shape (illustrated with line drawings) are shown to be diagnostic for identification. (In Japanese; English summary.)—K. C. P.

MANAGEMENT AND CONSERVATION

ANDERSON, J., AND A. EGDELL. 1963. Pheasant nesting 35 feet above ground in same tree as Sparrowhawk. Brit. Birds, **56:** 419.

BIAGGI, V. 1963. La vida silvestre y su conservacion en Puerto Rico. Caribbean J. Sci., **3:** 53–59.—A review of conservation problems with special emphasis on game birds. Great need exists for preservation and restoration of forest and freshwater marsh habitats.—W. B. R.

ELLIS, J. A., AND W. L. ANDERSON. 1963. Attempts to establish pheasants in southern Illinois. J. Wildl. Mgmt., **27:** 225–239.—Such attempts failed, apparently because of excessive mortality between late summer and the following breeding season.—J. P. R.

GIBAN, J. Colloque sur les moyens de protection contre les espèces d'oiseaux commettant des dégâts en agriculture. 1962. Annales des Épiphyties, **13:** 1–254.—Papers by various authors on protection against passerine depredations on agriculture, methods of controlling Starlings, acoustical experiments with crows, and various control methods used near airports. Presented in October, 1961, at the General Assembly of the International Union of Applied Ornithology, in Versailles.—M. D. A.

HENDRIKSMA, J. T. 1964. Protecting ground nests from cattle. Brit. Birds, **57:** 189–190.—By a frame of iron bars.—H. B.

KACZYNSKI, C. F., AND W. H. KIEL, JR. 1963. Band loss by nestling Mourning Doves. J. Wildl. Mgmt., **27:** 271–279.—The minimum age at which nestlings were banded without subsequent band loss was six days with size 3, and eight days with size 3A bands.—J. P. R.

KING, J. G. 1963. Duck banding in arctic Alaska. J. Wildl. Mgmt., **27:** 356–362.—A description of a huge drive trap, with details of construction, and of a single drive in which approximately 10,000 flightless ducks, mostly Lesser Scaup were captured. —J. P. R.

LYNCH, J. J., AND J. R. SINGLETON. 1964. Winter appraisals of annual productivity in geese and other water birds. Wildfowl Trust Fifteenth Ann. Rept., pp. 114–126.—Theoretical and applied values of adult: young ratios in flocks of wintering geese is illustrated by figures for the Blue Goose.—P. A. J.

MATHESON, C. 1963. The pheasant in Wales. Brit. Birds, **56:** 452–456.—Data on *Phasianus colchicus*, chiefly from gamebooks.—H. B.

NERO, R. W. 1963. Detergents—a new hazard for water birds. Blue Jay, **21:** 91–93.—Two dozen Horned Grebes were found in a wettable state in a sewage lagoon. —R. W. N.

SPOFFORD, W. R. 1964. The Golden Eagle in the Trans-Pecos and Edwards Plateau of Texas. Audubon Conservation Rept. no. 1, 1–47 pp.—The first of a new series of occasional papers on "America's threatened species" is mostly a history of eagle shooting in southwestern United States, with additional information on winter populations, depredation, and feeding. Shoot-offs of eagles from airplanes is a particularly effective method which endangers the entire North American population of Golden Eagles. Records of winter kills for pilots flying from one airport near Alpine, Texas, during the years 1941 to 1946 range from 657 to 1,008 eagles. After the winter of 1961 aerial eagle hunting was prohibited by federal law. Trapping and shooting from trucks is far less efficient.—G. E. W.

STODDARD, H. L., SR. 1963. Maintenance and increase of the eastern wild Turkey on private lands of the coastal plain of the deep southeast. Bull. Tall Timbers Res. Sta. no. 3: 1–49.—The craft of managing *Meleagris gallopavo*, with diversions on tactics and esthetics in hunting and on the early ecology of pines on old fields. Management to provide a shootable surplus involves prevention of poaching and provision of suitable cover and food for the entire population throughout the year. In such provision controlled burning is a useful tool. Turkey management is compatible with agriculture, livestock grazing, and long-rotation forestry; however, planting of supplementary foods (especially *Cyperus esculentus, Panicum adspersum*, and oats) may sometimes be necessary.—R. B.

VOHS, P. A., JR. 1964. Wide-row corn as wildlife habitat. Occ. Pap. Adams Center for Ecol. Studies, no. 12: 1–29.—Wide-row (60 inch) corn fields with between-row plantings of seed- and cover-producing annuals were used by Bobwhites, Canada Geese, and Mourning Doves more than were standard (40 inch) fields.—R. B.

WESTERSKOV, K. 1963. Superior survival of Black-necked over Ring-necked pheasants in New Zealand. J. Wildl. Mgmt., **27:** 239–245.—Mean annual mortality was only 60 per cent in Black-necks but 73 per cent in Ring-necks. Annual releases are predominantly light colored Ring-necks but the wild stock consists of dark colored hybrids with white collars.—J. P. R.

WETHERBEE, D. K., R. P. COPPINGER, B. C. WENTWORTH, AND R. E. WALSH. 1964. Antifecundity effects of Sudan Black B and transovarian intravital staining in avian population control. Exp. Sta. Bull. 543, Coll. of Agr., Univ. of Mass., Amherst, May, 16 pp.—Ingested Sudan Black B was used as a self-labeling chemosterilizer, killing embryos early in development. Females with dye levels of 167 mg/kg had only 25 per cent hatch; frequency of ovulation was not altered. Preliminary field tests on *Larus argentatus* indicate the dye has promise as a means of reducing populations of nuisance birds.—G. E. W.

MIGRATION AND ORIENTATION

BAGG, A. M. 1964. The changing seasons. A diversity of observations for a variety of ornithological tastes. Aud. Field Notes, **18:** 420–425.—A summary of spring migration, 1964, with weather maps suggesting the close relationship between "big days" in early May and wind patterns. Bagg remarks that *Audubon Field Notes* is the only ornithological publication which chronicles the comings and goings of birds over the major portion of an entire continent.—E. E.

BASSINI, E., AND A. M. PILLA. 1963. Rilievi statistici sulla migrazione del fringuello (Fringilla coelebs L.). Ric. Zool. appl. alla Caccia, **37:** 1–14.—Statistical analysis of daily captures in Lombardy (Varese) and Veneto (Vicenza), in northern Italy, and Marche (Macerata), in central Italy, indicates that catches in Varese were in advance of those in the other stations. (In Italian; English, French, and German summaries.)—M. K. R.

BENSON, C. W. 1964. Some intra-African migratory birds. The Puku, Occ. Pap. Dept. Game and Fisheries, N. Rhodesia, no. 2: 53–66.—Discusses migratory status of *Crex egregia, Porzana marginalis, Ceyx picta, Halcyon senegalensis,* and *Merops superciliosus.*—M. A. T.

DROST, R. 1963. Zur Frage der Bedeutung nächtlicher Zurgrufe. Vogelwarte, **22:** 23–26.—Discusses the importance of the nocturnal calls of migrating birds; the role of holding flocks together is thought to be most important. Small flocks and single birds call more frequently than large flocks; these calls can be heard from many species of migratory birds including small passerines.—W. J. B.

GALINDO, P., E. MENDEZ, AND A. J. ADAMES. 1963. Banding of migrant thrushes at Almirante, Panama. Bird-Banding, **34:** 202–209.—In all, 1,644 Swainson's 264 Gray-cheeked and 89 Wood thrushes, and 38 Veeries were captured and banded in the fall, 1962, and spring, 1963, migrations. Gray-cheeked Thrushes and Veeries were absent and Swainson's and Wood thrushes much less numerous in spring than in fall.—G. W. C.

HEINTZELMAN, D. S. 1963. An interesting Black-crowned Night Heron recovery. Bird-Banding, **34:** 221.—Banded on 27 May 1961 in Lancaster County, Pennsylvania, as a nestling and recovered on 11 January 1962 at Andytown, Florida, a distance of 975 miles.—G. W. C.

LONG, C. R. 1962 (?). Nyasaland Bird Migration Report I. Ann. Rep. Bull. Nyasaland Mus. 1961–1962: 18–24.—Arrival and departure dates of 48 species.—M. A. T.

MAYHEW, W. W. 1963. Homing of Bank Swallows and Cliff Swallows. Bird-Banding, **34:** 179–190.—Observations on behavior at release, and on speed and suc-

cess of homing of 13 Bank Swallows in Clearwater County, Minnesota, in June and July, 1957, and of 143 Cliff Swallows in California and Nevada in 1952 and 1953 suggest that both species use radial search or spiral exploration as homing mechanisms when released in unfamiliar areas.—G. W. C.

MYRES, M. T. (compiler). 1964. Technical details of radar equipment detecting birds, and a bibliography of papers reporting the observation of birds with radar. The Assoc. Comm. on Bird Hazards to Aircraft, Natl. Res. Coun. of Canada, Ottawa. Field Note no. 9, September.—mimeographed.

NICHOLLS, T. H. 1963. Homing instincts in swallows. Passenger Pigeon, **25:** 142–149.

OZAWA, K. 1964. The grasshopper-warblers, *Locustella lanceolata* and *L. ochotensis*, obtained at sea in the central Japan Sea. Misc. Repts. Yamashina's Inst. Ornith. and Zool., **4:** 53–57.—Numerous dragonflies, *Pantala flavescens*, 20 or 30 *L. lanceolata*, and 1 *L. ochotensis* were taken on shipboard well out to sea on 21 and 22 August. All three species are usually coastal migrants, and are thought to have been drifted out to sea by a storm which passed through the area on these dates. (In Japanese; English summary.)—K. C. P.

RYDÉN, O., AND H. KÄLLANDER. 1964. [Calculation of migratory flight speed with special reference to the eider (*Somateria mollissima*).] Vår Fågelvärld, **23:** 151–158. —The mean still-air speed of eiders in spring migration was calculated to be 70.0 km/h from 354 observations by observers 1 km apart. Speeds of 13 other species are tabulated. (In Swedish; English summary.)—M. D. F. U.

SCHÜZ, E. 1962. Über die nordwestliche Zugscheide des Weissen Storchs. Vogelwarte, **21:** 269–290.—Describes the northwestern boundary of the migratory path of the White Stork in western Europe, based on banding returns.—W. J. B.

SCHÜZ, E. 1963. Über die Zugscheiden des Weissstorchs in Afrika, Ukraine und Asien. Vogelwarte, **22:** 65–70.—Describes the limits of the migratory routes of the White Stork in Africa and Asia.—W. J. B.

SCHÜZ, E., M. CASEMENT, AND H. SEILKOPF. 1963. Weisser Storch: Fälle von Suesgolf-Querung und Sinai-Zug. Vogelwarte, **22:** 26–30.—Describes spring migration of White Storks across the southern end of the Gulf of Suez. About 5,000 to 10,000 birds were observed. Many birds die on migration through the Arabian desert; large numbers died in early September in the fall migration of 1962.—W. J. B.

SHARROCK, J. T. R. 1964. Grey Wagtail passage in Britain in 1956–60. Brit. Birds, **57:** 10–24.—Peak movements occur mainly at the onset of anticyclonic conditions. —H. B.

STOLT, B.-O., AND J. W. MASCHER. 1962. Untersuchungen an rastenden Blaukehlchen (*Luscinia s. svecica*) im Uppland, Mittelschweden, unter besonderer Berücksichtigung der Körpermasse und Gewichtsvariantionen. Vogelwarte, **21:** 319–326.—Describes the fall migration of the Blue-throat in central Sweden, with special emphasis on body size and variation in weight. Birds remain in the area from one to eight days, mostly from one to three days. The weight generally varied between 16.3 g (one bird, 14.7 g) and 20.4 g; individual variation did not exceed by more than two g the weight lost by an individual bird overnight. Nightly weight loss was about 2 g or 11 per cent of body weight.—W. J. B.

SWINEBROAD, J. 1964. The radar view of bird migration. The Living Bird. Third Annual of the Cornell University Laboratory of Ornithology, pp. 65–74.—A brief history of bird watching on radar and a mention of techniques, problems, and current ideas pertaining to migration.—G. E. W.

URAMOTO, M. 1963. 2nd annual report on the bird-ringing scheme for the year ending 31st March 1963. Misc. Repts. Yamashina's Inst. Ornith. and Zool., **3:** 303–

310.—Banding and recovery totals for Japanese birds. A turnstone (*Arenaria interpres*) banded in Japan was recovered in eastern Siberia, and a Common Snipe (*Gallinago gallinago*) in the Philippines. Four of the recoveries of foreign-banded birds were of Laysan Albatross from the Midway population, taken in the open ocean just east of Japan. (In Japanese; English summary, non-Japanese locality names also in English.)—K. C. P.

VLEUGEL, D. A. 1962. Über nächtlichen Zug von Drosseln und ihre Orientierung. Vogelwarte, **21**: 307–313.—Discusses the problem of orientation of thrushes in nocturnal migration during overcast periods. The evidence indicates that the thrushes orient not only by stars but probably also by the sun just before sunset. —W. J. B.

MISCELLANEOUS

BENSON, C. W. 1962. Noms Comoriens d'oiseaux. Naturaliste malgache, **13**: 265–268.—Gives local names in the dialect of each island.—M. A. T.

DAVIS, L. I. 1964. Biological acoustics and the use of the sound spectrograph. Southwestern Nat., **9**: 118–145.—An explanation of the use of the sound spectrograph for detailed analysis of animal sounds, especially of birds.—G. E. W.

FLANDERS, R. E., AND C. E. CLELAND. 1964. The use of animal remains in Hopewell burial mounds, Kent County, Michigan. Jack-pine Warbler, **42**: 302–309.—A foot of a Snowy Owl and awls made from Turkey bones were found.—R. B.

HESTER, A. E. 1963. A plastic wing tag for individual identification of passerine birds. Bird-Banding, **34**: 213–217.—Author describes a wing tag about one inch in diameter, made of plastic coated nylon fabric with identifying marks painted on with vinyl plastic finish, and attached with a poultry tag to the patagium.—G. W. C.

JOHNS, J. E. 1963. A new method of capture utilizing the mist net. Bird-Banding, **34**: 209–213.—A horizontally-suspended mist net with an attached hand line which could raise the net to a height of two feet or drop it onto the surface of a small pond was used to capture feeding Wilson's Phalaropes.—G. W. C.

RUSCHI, A. 1962. List of Augusto Ruschi's writings on Trochilidae (Aves) published in the Bulletin of the Museum of Biology Prof. Mello Leitão, in the series on Biology, Zoology, and General Information during the years 1949 to 1962. Bol. Mus. Biol. 'Prof. Mello Leitão,' Divulgacão, **3**: 1–22.—This bibliography of the leading Brazilian hummingbird specialist gives the titles and summaries in English of the author's numerous papers, all published in Portuguese.—E. E.

STORER, R. W. 1964. Vernacular names in English. Brit. Birds, **57**: 134.

PHYSIOLOGY

BACON, W., F. L. CHERMS, JR., AND W. H. MCSHAN. 1964. Gonadotropin assay of pituitaries from sexually mature male and laying female *Coturnix* quail. Endocrinol., **74**: 498–500.—The male pituitary was found to have three to four times the activity of the female gland.—H. C. S.

KOIKE, T. R., A. V. NALBANDOV, M. K. DIMICK, Y. MATSUMURA, AND S. LEPKOVSKY. 1964. Action of insulin upon blood glucose levels of fasted hypophysectomized, depancreatized and normal chickens. Endocrinol., **74**: 944–948.—All evidence points to different regulating mechanisms for carbohydrate metabolism in birds and mammals.—H. C. S.

MUNSICK, R. A. 1964. Neurohypophyseal hormones of chickens and turkeys. Endocrinol., **75**: 104–112.—Analysis of neurohypophyseal extracts failed to reveal any arginine vasopressin, the mammalian peptide.—H. C. S.

NAGRA, C. L., J. G. BIRNIE, AND R. K. MEYER. 1963. Suppression of the output of corticosterone in the pheasant by methopyrapone (metopirone). Endocrinol., **73:** 835–837.—A possible way to study of the role of adrenal glands in fat deposition.—H. C. S.

RESKO, J. A., H. W. NORTON, AND A. V. NALBANDOV. 1964. Endocrine control of the adrenals in chickens. Endocrinol., **75:** 192–200.—After removal of the pituitary, corticosterone levels remain high in the adrenal venous plasma.—H. C. S.

VÖLKER, O. 1964. Die gelben Mutanten des Rotbauchwürgers (*Laniarius atrococcineus*) and der Gouldamadine (*Chloebia gouldiae*) in biochemischer Sicht. J. f. Orn., **105:** 186–189.—Compares the chemistry of the lipochrome of yellow brown mutants of the Red-backed Shrike and Yellow-masked Gould's Finch with normal individuals. In both cases the yellow color is based on a yellow carotenoid without any red.—W. J. B.

WALKER, A. T. 1964. Major fatty acids in migratory bird fat. Physiol. Zool., **37:** 57–64.—The major fatty acids and their distribution in abdominal, chest, and visceral fat deposits were determined by paper chromatography for *Dendroica magnolia, Vermivora peregrina, Vireo olivaceus, Dolichonyx oryzivorus,* and *Porzana carolina.* Abdominal and chest fat were similar; abdominal and visceral deposits showed small but consistent differences among the different species. Highly concentrated fat characterized the fat of fall migrants. The unsaturated fatty acids, oleic, linoleic, and linolenic, outweighed by two to three times the saturated fatty acids, myristic, palmitic, and stearic. Oleic acid was predominant.—M. K. R.

TAXONOMY AND PALEONTOLOGY

BENSON, C. W. 1962 (?). The type locality of Sharpe's Akalat. Ann. Rep. Bull. Nyasaland Mus. 1961–1962: 27–28.—Shelley's type locality "Masisi Hill" for *Callene sharpei* is the "Mussissi" of Benson's *Checklist of the birds of Nyasaland,* 1953.—M. A. T.

BENSON, C. W. 1964. A further revision of the races of Whyte's Barbet, *Buccanodon whytii* Shelley. Arnoldia, Nat. Mus. S. Rhod., 1, no. 6: 4 pp.—The races are discussed, and *B. w. angoniensis* is described as new.—M. A. T.

BRODKORB, P. 1964. Notes on fossil turkeys. Quart. J. Florida Acad. Sci., **27:** 223–229.—A documentation of certain changes that appear in Brodkorb's Catalogue of fossil birds: part 2 (*Bull. Florida State Mus.,* 8[3]: 195–335, 1964). Includes a description of the new species *Agriocharis progenes* and the reasons for assigning *Meleagris antiqua* Marsh (1871) to the Cracidae.—G. E. W.

CLANCEY, P. A. 1964. Eighth report of the S. A. O. S. list committee. Ostrich, **35:** 45–54.—Contains nomenclatural or taxonomic decisions on 46 genera and species of the South African list.—M. A. T.

FLEMING, R. L., AND M. A. TRAYLOR. 1964. Further notes on Nepal birds. Fieldiana: Zool., **35:** 495–558.—Field and taxonomic notes on birds collected by Fleming in 1960–1961. One new race is described, *Paradoxornis nipalensis garhwalensis.*—M. A. T.

HAMON, J. H. 1964. Osteology and paleontology of the passerine birds of the Reddick, Florida, Pleistocene. Florida Geol. Surv., Geol. Bull. no. 44, vii + 210 pp.—The bulk of this paper describes the osteology of seven appendicular elements of the 32 genera of 12 passerine families known from the Pleistocene of eastern North America. All 12 families are now represented in the rich fossil beds of Reddick, Florida, deposited in the Illinoian glacial age. Added to the Reddick list, making a current total of 63 avian species, are 10 living passerines, 4 new to the fossil record.

The distribution of boreal and austral species indicates a temperature 6°–7° F cooler than at present. Illustrations include photographs of the seven elements for *Corvus brachyrhynchos* with all parts labeled, and a plate of the elements of *Pandanaris floridana*.—G. E. W.

HOLMAN, J. A. 1964. Osteology of gallinaceous birds. Quart. J. Florida Acad. Sci., **27:** 230–252.—A qualitative analysis of the rostrum and 10 postcranial elements of 43 genera of Galliformes representing all families. Some conclusions are that the Cracidae, Megapodiidae, and Opisthocomidae are more closely related to each other than to other galliforms, and are perhaps primitive; and the Numididae, Meleagrididae, and Phasianidae (with subfamilies Tetraoninae, Phasianinae, and Odontophorinae) are osteologically definable families, with the Odontophorinae the most changed from the primitive cracid-like condition.—G. E. W.

LAWSON, W. J. 1964. Systematic notes on African birds II. Durban Mus. Novit., **7:** 141–155.—Variation in *Melaenornis pammelaina, Hyliota australis, Hyliota flavigaster*, and *Trochocercus albonotatus* is discussed. Two new races are described, *M. p. poliogyna* and *H. a. pallidipectus*.—M. A. T.

LAWSON, W. J. 1964. Geographical variation in (*Turtur tympanistrius* (Temminck and Knip)). Ostrich, **35:** 64.—*T. t. fraseri* is a valid race.—M. A. T.

NIETHAMMER, G. 1963. Zur Kennzeichung des Zilpzalps der Iberischen Halbinsel. J. f. Orn., **104:** 403–411 (mit der Anmerkung von M. Abs. SS. 411–412).—A discussion of the morphology, song, and taxonomy of the Chiffchaff from the Iberian Peninsula. The type of *Phylloscopus collybita brehmii* is redescribed.—W. J. B.

RUSCHI, A. 1963. [A new representative of *Campylopterus,* from the region of Diamantina, in the state of Minas Gerais. (Trochilidae—Aves).] Bol. Museu de Biol. 'Prof. Mello Leitão', **39:** 1–9.—A new subspecies of sabrewing, *Campylopterus largipennis diamantinensis*, described from the Diamantina region of Minas Gerais, Brazil. Details on habitat and behavior, and a list of 12 other hummingbird species collected in the area are included. (In Portuguese; English summary.)—E. E.

SCHMIDT, W. 1964. Über eine fossile Schwanen-Eischale. J. f. Orn., **105:** 326–333.—The shell of a fossil swan egg from the Pleistocene is described in detail. The shell agrees with that of *Cygnus olor* in every way including the finest aspects of microstructure.—W. J. B.

SNYDER, L. L. 1963. On the type locality of thirteen North American birds. Canadian Field-Nat., **77:** 128–129.—States that 13 Linnaean species came from northeastern Manitoba.—G. E. W.

SNYDER, L. L. 1963. Forster's "Hirundo, 35." Canadian Field-Nat., **77:** 173–174.—The species described by Forster (Philosophical Trans. of London, **62:** 408, 1772) under the subheading "Hirundo, 35" was not *Petrochelidon pyrrhonota* but more likely two species, *Iridoprocne bicolor* and *Riparia riparia*.—G. E. W.

THIELCKE, G. 1964. Lautäusserrungen der Vögel in ihrer Bedeutung für die Taxonomie. J. f. Orn., **104:** 78–84.—The significance of song in the taxonomy of birds. The author concludes that song will not contribute much to the classification of orders and families but will be useful at the level of the species and population.—W. J. B.

VAURIE, C. 1964. Systematic notes on Palearctic birds, 34–35. Non-passeriformes. Amer. Mus. Nat. Hist.: 12 pp.—An analytical index to the author's series of papers in Amer. Mus. Novitates, 1959–1964. There is a chronological list of papers, list of illustrations, new forms, and species "completely" or "partially" reviewed, an index to scientific names, and an index arranged according to the taxonomic or biological problems discussed.—K. C. P.

VAURIE, C. 1964. Systematic notes on the bird family Cracidae. No. 1. Geographical variation of *Ortalis canicollis* and *Penelope marail*. Amer. Mus. Novit., no. 2197: 8 pp.—Two races only of *O. canicollis* are admitted, the nominate and *O. c. pantanalensis*. The type locality of the former is restricted from "Paraguay" to the region of Asunción, since *pantanalensis* may occur in northern Paraguay. The status of a pale form for which the name *grisea* is available is uncertain; "the coloration of this species may be correlated with local variations in aridity and habitat." *Penelope marail*, hitherto considered monotypic, is divided into *P. m. marail* of the Guianas and *P. m. jacupeba* Spix of Amazonian Brazil. The type locality of the latter is restricted from "in sylvis Parae" to the region of Obidos. [Resurrection of this name, although perhaps unavoidable, is unfortunate, as the name *jacupemba* Spix is in current use for a subspecies of *Penelope superciliaris*, and the name *jacupema* Merrem is listed in the synonymy of *marail*.]—K. C. P.

VOOUS, K. H. 1964. Wood owls of the genera *Strix* and *Ciccaba*. Zool. Mededel., **39:** 471–478.—Voous questions the distinction between strigine and bubonine owls, and particularly between *Strix* and *Ciccaba* wood owls based on outward ear structure. If the characters used by Peters for his division into subfamilies are applied, *Strix selaputo* and *S. leptogrammatica* of southern Asia would have to be transferred to *Ciccaba*, which would make that genus pan-tropical. The South American *S. rufipes* and *S. hylophila* are intermediate between *Strix* and *Ciccaba* in size of the dermal ear flap. He suggests that size of the ear flap and great asymmetry in length of right and left ears are of little value in taxonomy being adaptive and plastic, and found chiefly in higher latitudes. They may be more useful in locating the squeaks of prey in the silent boreal nights, than in the noisy forests of tropical areas where the night chorus of insects and amphibians is at times deafening.—E. E.

WEIGEL, R. D. 1962. Fossil vertebrates of Vero, Florida. Florida Geol. Surv., Spec. Publ. no. 10, vii + 59 pp.—The vertebrate fauna includes 37 species of birds of which only *Ciconia maltha* and *Ectopistes migratorius* are extinct. The extinct species described by Shufeldt (1917) are assigned to modern forms. Three distinct beds occur; the oldest is a marine shell marl of Sangamon age, the middle layer, the base of which was carbon-dated at over 30,000 years, is of Wisconsin time. The deposit was formed in a shallow, fresh-water pond or marsh. It is probable that Vero man and the extinct Pleistocene vertebrates were contemporaneous.—G. E. W.