RECENT LITERATURE

EDITED BY JOHN WILLIAM HARDY

ANATOMY AND EMBRYOLOGY

- BERLIN, O. G. W. 1962. A comparative study of the hind limb musculature and the toes of four local representatives of the falconiformes. J. Anim. Morph. and Physiol., 9: 1-17.—The muscles of the hind limb of Neophron percnopterus, Milvus migrans, Astur badius and Falco peregrinus are described and compared. The author concludes that Neophron is further separated from the other three forms than they are from each other. This is apparently because Neophron is a ground-dwelling bird and not a direct reflection of taxonomic affinities.—W. J. B.
- GEORGE, W. G. 1962. The classification of the Olive Warbler, *Peucedramus taeniatus*. Amer. Mus. Novitates, no. 2103: 41 pp.—A survey of bones and associated muscles of oscine hyoids indicates that *Peucedramus* is neither a parulid nor, indeed, one of the New World "nine-primaried" radiation. This conclusion is supported by its jaw musculature, nest structure, egg color, voice, and lack of nest sanitation. It resembles the Parulidae chiefly in having a reduced tenth primary and in general plumage pattern. The exact taxonomic position of *Peucedramus* cannot be determined definitely as yet, but it appears to belong to the "Muscicapidae" (*sensu lato*), in or near the Sylviinae.—K. C. P.
- KOENIG, O. 1962. Der Schrillapparat der Paradieswitwe Steganura paradisaea. J. f. Orn., **103**: 86-91.—The structure and function of the sound (whistling and rustling) producing modifications in the tail of the paradise widow bird are described. The central tail feathers end in a long shaft devoid of a vane. These lie between the longest pair of tail feathers which are twisted about the long axis. These feathers have a peculiar longitudinal filament along the edge of lower vane (the feather is oriented vertically at its base). This filament fastens to the central tail feather much like a zipper.—W. J. B.
- MAV, W. 1961. Die morphologie des Chondrocraniums und Osteocraniums eines Waldkauzembryos. Zeits. wiss. Zool., **166**: 134-202.—A description of the chondrocranium and dermocranium of a Tawny Owl (*Strix aluco*) embryo. The embryo had a crown-rump length of 40 mm and a head length of 22 mm. The details of the cranium of *Strix* were compared to those of other birds described in the literature, especially *Tinnunculus* (=*Falco tinnunculus*) to determine whether the developing skull provided any clues to close affinities between the owls and falcons. The two forms did possess a number of features in common, but taxonomic significance of these cannot be ascertained until additional comparative studies are made.—W. J. B.
- OEHME, H. 1962. Das Auge von Mauersegler, Star und Amsel. J. f. Orn., 103: 187-212.—The structure of the retina and shape of the eyeball are described and compared in the Common Swift, Starling, and Blackbird. All species have three types of cells in the retina—rods, cones, and double cones; their distribution, relative abundance, and connection to the nerve net differs in each form. The position of the fovea in the eye differs, although its shape is very uniform. The results are correlated with the feeding mechanisms of these forms, in which it is shown that the morphological structure of the eye agrees with its use during feeding. Good bibliography, especially of German papers, on the avian eye.—W. J. B.

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- SCHMIDT, W. J. 1962. Über die Basalkalotten der Vogeleischale. J. f. Orn., 103: 28-37.—Investigation of the structure of the inner layers of the egg shell with the use of the polarizing microscope.—W. J. B.
- SCHWARZ, L., and F. FEHSE. 1959. Beobachtungen an Eischalen und Eiern. III. Mitteilung. Über Unterschiede der Schalen unbebrüteter und ausgebrüteter Eier. I Fortsetzung. Zool. Anz., 162: 100–112.—Compares the structure of the entire egg and the fine details of the egg shell of unincubated and fully incubated eggs in a number of avian species.—W. J. B.
- SCHWARZ, L., and F. FEHSE. 1960. Beobachtungen an Eischalen und Eiern. V. Mitteilung. Einige Untersuchungen an Emueischalen. Zool. Anz., **164**: 421–442.— Observations on the color, surface texture, and structure of the shell of the emu egg. Some observations on moa eggs are also given.—W. J. B.
- SCHWARZ, L., and F. FEHSE. 1962.—Beobachtungen an Eischalen und Eiern. IX. Mitteilung. Über Auflagerungen auf Eiern von Land- und Wassergeflügel II. Zool. Anz., **168**: 442-449.
- SCHWARZ, L., G. MULLER, and E. KRASEMANN. 1959. Beobachtungen an Eischalen und Eiern. IV. Mitteilung. Untersuchungen an Schwaneneiern (*Cygnus olor*) vor und während der Bebrutung (Kunstbrut). Zool. Anz., 163: 243-254.—Discusses the changes in the color of the shell during the incubation of the egg of the Mute Swan.—W. J. B.
- SKOCZYKLAS, R. 1961. [Morphological specialization of the bird's head.] Przeglad Zoologiczny, 5: 259-267. Discusses the adaptations of the bill and tongue of birds to the main types of foods eaten. Accordingly, birds are divided into groups of different feeding types, and some modifications in their receptory organs stressed. (In Polish; English summary.)—F. J. T.
- STARCK, D. 1960. Uber ein Anlagenungs-gelenk zwischen Unterkiefer und Schadelbasis bei den Mausvögeln (Coliidae). Zool. Anz., 164: 1-11.—The gross and histological structure of the basitemporal articulation of the mandible is described in the mousebirds. The histological structure is different from that seen in the skimmer and the plovers.—W. J. B.
- STEGMANN, B. 1962. Die verkummerte distale Handschwinge des Vogelflügels. J. f. Orn., 103: 50-85.—An important survey of the vestigial distal primary in birds. A major problem lies in determining whether a vestigial distal primary or a large upper covert is present; careless examination may cause erroneous conclusions. The correlation between the shape of the wing and size of the distal primary, large in rounded and small in pointed wings, is discussed. The attachment of the primaries to the metacarpus and to the central digit are shown. A survey of the primaries in many families of birds is given.—W. J. B.

BEHAVIOR

- BARLOW, J. C. 1962. Natural history of the Bell Vireo, Vireo bellii Audubon. Publs. Univ. of Kansas Mus. Nat. Hist., 12: 241–296.—Ethologically oriented study dealing with nesting and related activities in Kansas. Fighting and courtship rituals are categorized, and comparisons made with Nolan's (*Condor*, 62: 225–244, 1960) study in Indiana. Cowbird parasitism was much higher in Kansas. Volume of territories was similar, although area was less in the taller vegetation utilized in Kansas.—R. B.
- BEER, C. G. 1962. The egg-rolling of Black-headed Gulls Larus ridibundus. Ibis, 104: 388-398.—Egg-rolling in this species appears to have an incubation function, in that the readiness to perform the act increases steadily as the date of egg-laying

approaches, remains maximally high during laying and incubation periods, and declines steadily after hatching. With a fixed, immovable egg placed at nest edge, birds performed fewer actual egg-rolling attempts and more egg-rolling intention movements when the nest contained eggs than when the nest was empty. In any case, the bird's effort was generally much greater against this fixed object than against a movable egg. Frustration of egg-rolling by this method did not appear to produce displacement nest-building or other activities "irrelevant" to egg-rolling attempts. If the tendency both to sit on the nest and to roll in an egg from the outside are highly activated, they can interfere with each other.—G. C.

- CARSON, R. D. 1962. Courtship behaviour of Short-eared Owl. Blue Jay, 20: 2-3.
- EIBL-EIBESFELDT, I., and H. SIELMANN. 1962. Beobachtungen am Spechtfinken *Cactospiza pallida* (Sclater und Salvin). J. f. Orn., **103**: 92-101.—An excellent series of photographs of the woodpecker-finch probing for insects, with accompanying description. Some of the observations were made on free-living individuals on Indefatigable Island, but most were made on captive birds at Seewiesen, Germany. The stick is used as a probe to discover insects and chase them out of holes, after which they are seized in the beak. If the insect does not come out, the finch spears it with the stick, which is then withdrawn and held by the foot until the bird can remove the insect.—W. J. B.
- ERARD, C. 1962. Observations sur un comportement de Merles noirs. Nos Oiseaux, 26: 238-243.—Agonistic posturing is described for Blackbirds (*Turdus merula*) during feeding; dominant and soliciting individuals are described.—M. D. A.
- FICKEN, M. S. 1962. Maintenance activities of the American Redstart. Wilson Bull., 74: 153-165.—Described are the patterns of movement used by *Setophaga ruticilla* in foraging, eating insects, preening, stretching, and sleeping.—J. T. T.
- FLOOK, D. R., and D. C. THOMAS. 1962. An observation of a Golden Eagle dominating coyotes. Canadian Field-Nat., 76: 123.
- GRACZYK, R. 1961. [Observations on collective night's lodgings of the sparrow, Passer domesticus L.] Przeglad Zoologiczny, 5: 241-245.—On the basis of literature and author's own observations on the mass roosting of the English Sparrow, it is concluded that this phenomenon is not evoked by any environmental factor; it is, rather, of sociological or behavioristic nature. (In Polish; English summary.) —F. J. T.
- HALL-CRAGS, J. 1962. The development of song in the Blackbird (Turdus merula). Ibis, 104: 279-300.-Analysis of development of the song of an adult male Blackbird during its song period in south Oxfordshire, England, showed that the bird started with 26 basic song phrases, in early March, and developed song through the season by adding new portions to the basic phrases, repeating notes within phrases, and abbreviating some of the basic phrases. Song proceeded from an early, relatively simple form of short, random phrases to a mature, organized, more varied repertoire by April-May, 1957. Deliberate selection of material by the bird is suggested. The Blackbird generally answered a neighboring male as follows: (1) with one of its phrases which was most similar to that of the neighbor; (2) with an exact imitation or copy of the neighbor's song; (3) antiphonal completion of phrases in the neighbor's song. Discussion of the aesthetic and functional aspects of the bird's song-development considers greater deliberate selection and organization of song phrases through the singing season, and copying or imitating other blackbirds, or responding "in kind" to them. It is suggested that, functionally, a rival might be more readily repelled by a song similar to its own than by one different from its own; and it is tentatively suggested that some of the

bird's song may simply represent an aesthetic, subjective appraisal of its own voice.--G. C.

- JOHNSTON, R. F., and J. W. HARDY. 1962. Behavior of the Purple Martin. Wilson Bull., 74: 243-262.—Early arrival at nesting sites, reproductive behavior, aggressive behavior, and group behavior of *Progne subis* are described.—J. T. T.
- KILHAM, L. 1962. Reproductive behavior of Downy Woodpeckers. Condor, 64: 126–133.—Observations on wild and captive pairs.—R. E. P.
- KRÖSCHE, O. 1962. Beobachtungen am Mornellregenpfeifer. J. f. Orn., **102**: 255–259.—Observations on breeding Dotterels in Austria, noting especially the behavior of the adults toward intruders.—W. J. B.
- MARLER, P., and M. TAMURA. 1962. Song "dialects" in three populations of Whitecrowned Sparrows. Condor, **64**: 368–377.—Analysis of song patterns showed unusual homogeneity of some characteristics within populations and consistent differences between populations.—R. E. P.
- McBRIDE, G., and F. FOENANDER. 1962. Territorial behaviour in flocks of domestic fowls. Nature, **194**: 102.
- MURIE, O. J. 1962. Why do birds sing? Wilson Bull., 74: 177-182.—The singing of birds is not always associated with defense of a territory; song, and the sounds made by some mammals, may be an expression of pleasure or well-being. The scientist should not dogmatically eliminate this possibility from his consideration. —J. T. T.
- NERO, R. W. 1962. Additional records of meadowlark night song. Blue Jay, 20: 78.
- NEUMANN, G. H. 1962. Das visuelle Lernvermögen eines Ernus. J. f. Orn., 103: 153-165.—The visual learning ability of an adult captive emu was tested with the use of paired choice experiments. It learned color differences faster than black and white form characters; this corresponds to results from other avian groups. The emu learned a maximum of eight colors of the visual spectrum; more colors caused disturbance to the previous learning. It could control four pairs of choices at any one time, whether these were all color choices or three color choices and one black-white pattern choice.—W. J. B.
- NICOLAI, J. 1962. Über Regen-, Sonnen- und Staubbaden bei Tauben (Columbidae). J. f. Orn., 103: 125-139.—Observations were made on bathing, rain bathing, sunbathing, and dust bathing in 19 species of doves in captivity. The thresholds for the different types of bathing vary among the several species. Movements and postures are identical in rain and sunbathing. Dust bathing apparently evolved from bathing in water. Of great interest is the swimming undertaken by some species; the position in which the body is held while swimming is reminiscent of that in charadriiform birds.—W. J. B.
- NOLAN, VAL, JR. 1962. The swaying display of the Red-eyed and other vireos. Condor, **64**: 273-276.
- RICE, C. E. 1962. Imprinting by force. Science, **138**: 680-681.—The following response in chicks was forced during the critical period for imprinting. Imprinting occurred, but not as strongly as when following is voluntary (abridged from author's abstract).
- RUSCHI, A. 1962. [The different phases of the nuptial display of hummingbirds.] Bol. Mus. Biologia Prof. Mello-Leitão, no. 33: 1-4.—The successive phases are approach of male to female, pursuit, presentation, exhibition of plumage, and copulation. (In Portuguese; English summary.)—E. E.
- RUSCHI, A. 1962. [The coronal apteria and eyelids of Lophornis chalybea chalybea (Vieillot) and Lophornis chalybea verreauxii J. & E. Verreaux, their pigmentary

constitution and their function in nuptial display (Aves. Trochilidae).] Bol. Mus. Biol. Prof. Mello-Leitão, no. 34: 1-6.—Bare skin of crown and eyelids are exposed in display of two allied Brazilian hummingbirds. Nuptial display described in detail. (In Portuguese; English summary.)—E. E.

- SCOTT, J. P. 1962. Critical periods in behavioral development. Science, 138: 949-958.—Primarily a literature review, with mention of imprinting experiments and other work with birds.—K. C. P.
- STRESEMANN, E. 1962. Zweiter Beitrag zu einer Biographie des Freiherrn Ferdinand Adam von Pernau (1660-1731). J. f. Orn., **103**: 250-254.—Notes on Baron von Pernau, a pioneer student of bird behavior.—W. J. B.
- SWIFT, J. J. 1962. Notes on the behavior of Whiskered Terns. Station Biologique de la Tour du Valat, 6th Rept., 559-572.—An account of the behavior and breeding biology of *Chlidonias hybrida*, and comparisons with Black Terns.—M. D. A.
- THIELCKE, G. 1962. Versuche mit Klangattrappen zur Klärung der Verwandtschaft der Baumläufer Certhia familiaris L., C. brachydactyla Brehm und C. americana Bonaparte. J. f. Orn., **103**: 266–271.—By playing back the songs of these species of Certhia to the same and different species relationship of C. [familiaris] americana to the European species was ascertained. Each of the European species will react to the song of a conspecific individual but rarely to the other. It is found that neither species of the European pair of sibling species will react to the recorded song of americana, and it is thus suggested that the American form be treated as a distinct species and not as a subspecies of familiaris.—W. J. B.
- VON DE WALL, W. 1962. Die Ausdrucks bewegungen der Marmelente, Anas angustirostris Ménétr. J. f. Orn., 103: 150–152.—A description of courtship in the Marble Teal. This species, like A. capensis, can shift its courtship to land, but whether this has taxonomic significance is purposely omitted from discussion.—W. J. B.

DISEASES AND PARASITES

- HACKMAN, W. 1962. [Ueber eine Methode zum Sammeln von Federlingen-Mallophaga.] Lounais-Hameen Luonto, Forssa, 13: 94–95.—A method of collecting Mallophaga from bird skins in museum collections, even from skins to 10 years of age, is described, and examples of the number of species and individuals of Mallophaga found are given. (In Finnish; German summary.)—F. J. T.
- ODENING, K. 1962. Trematoden aus einheimischen Vogeln des Berliner Tierparks und der Umgebung von Berlin. Biol. Zentralblatt, **81:** 419–468.—A list of the trematodes found in local birds collected in Berlin.—W. J. B.

DISTRIBUTION AND ANNOTATED LISTS

- BAEPLER, D. H. 1962. The avifauna of the Soloma region in Huehuetenango, Guatemala. Condor, 64: 140-153.
- CZARNECKI, Z. 1962. [The birds of the Goplo Lake (Poland).] Acta Ornith., 6: 181-194. (In Polish; English and Russian summaries.)
- ELV, C. A. 1962. The birds of southeastern Coahuila, Mexico. Condor, 64: 34-39.
- GERZENSTEIN, E. 1960. Aves observadas y cazadas en el Dpto. de Artigas del 22 de enero al 1° de febrero de 1958. Actas y Trabajos del Primer Congreso Sudamericano de Zoologia, 4: 73-83.—Birds collected or observed in the Uruguayan department of Artigas; 112 species in a two week period, including four not previously listed from that country. (In Spanish.)—E. E.
- HAFFER, J. 1962. Zum Vorkommen von Brachygalba salmoni Sclater & Salvin. J. f. Orn., 103: 38-46.—New records of this rare jacamar are given, with a summary

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of present knowledge of its distribution in northwestern Colombia and eastern Panama. A new subspecies, *B. s. carmensis*, from the El Carmen region of Colombia is described.—W. J. B.

- HARRISSON, T. 1962. Hoopoe Upupa epops in the Philippines. Ibis, **104:** 417–418.— First record of occurrence of the Hoopoe in the Philippines, and the kind of habitat, are noted.—G. C.
- HUYSKENS, G., and H. VOET. 1962. [Aythya collaris (Donovan) Ring-necked Duck, a new bird for Belgium.] Gerfaut, **52**: 54-58.—Male seen 25 November 1960, and 17 November and 26 December 1961, near Antwerp. Other European sightings since 1955 reviewed. (In Flemish; French summary.)—E. E.
- KINZELBACH, R. 1962. Beitrage zur Avifauna des Neusiedles Sees. Ornith. Mitteil., 14: 193-194.—Notes on rare visitors to the area of the Neusiedler See in eastern Austria.—W. J. B.
- KIRCHOF, W., and W. KAIG. 1962. Zwei weitere Nachweise des Graubrust-sandläufers, Calidris melanotos (Vieill.), in Deutschland. J. f. Orn., 103: 287–288.
- LATHBURY, SIR G., and W. H. BEERMAN. 1962. American Pectoral Sandpiper (*Calidris melanotos*) on Texel. Limosa, **35:** 2-3.—First Netherlands sighting, with excellent photographs, 20-24 September 1961.—E. E.
- LIVERSIDGE, R. 1962. The spread of the European Starling in the eastern Cape. Ostrich, **33**: 13-16.—Reached Port Elizabeth 1954 and Uitenhage 1956. Spread by long jumps, the one controlling factor appearing to be the presence of European type dwellings.—M. A. T.
- LLOVD, H. 1961. A Manitoba occurrence of the Black-headed Grosbeak. Canadian Field-Nat., 75: 109.
- MERILEES, W. J. 1961. First Alberta record for the Glaucous-winged Gull. Canadian Field-Nat., 75: 170.
- MONTGOMERY, G. H. 1961. Clay-colored Sparrow in southern Quebec. Canadian Field-Nat., 75: 263-264.
- NIETHAMMER, G., and W. THIEDE. 1962. Der Fichtenammer, *Emberiza leucocephala*, als Besucher Europas. J. f. Orn., 103: 289-293.
- OELKE, H. 1962. Moorente (Aythya nyroca) 1961 Brutvogel in Mittelnieder-sachsen. J. f. Orn., **103**: 215–218.—Doubt existed whether A. nyroca still bred in Niedersachsen (North Germany); a breeding pair was observed in 1961.—W. J. B.
- OLIVARES, A. 1962. Aves de la región sur de la Sierra de La Macarena, Meta, Colombia. Rev. Acad. Colombiana Cien. Ex. Fis. Nat., 11(44): 305-345.—Report on an expedition to a little-known mountain range in eastern Colombia; 204 species collected, including several new to Colombia. Data on color of soft parts, stomach contents, and wing and tail measurements. (In Spanish; English summary.)—E. E.
- PARTRIDGE, W. H. 1961. Aves de Misiones nuevas para Argentina. Neotropica, 7: 25-28, 58.—Birds new to Argentina, including the North American migrants Coccyzus erythropthalmus and Dendroica breviunguis [= D. striata]; some of the records involve substantial range extensions southward. (In Spanish.)—E. E.
- PARTRIDGE, W. H. 1962. Dos aves nuevas para la fauna Argentina. Neotropica, 8: 37-38.—Two species new to Argentina from Corrientes: *Picumnus nebulosus, Anthus nattereri.* (In Spanish.)—E. E.
- PAYNTER, R. A., JR. 1963. Birds from Flores, Lesser Sunda Islands. Breviora, 182: 1-5.—Forms new to Flores or otherwise interesting; taxonomic comments.—E. E.
- PEARSON, A. J. 1962. Field notes on the birds of Ocean Island and Nauru during 1961. Ibis, **104:** 421-424.-Observations in July and November on two central Pacific coral atolls. Substantial contribution.-G. C.

- RAYNER, M. 1962. Palaearctic birds in southern Nigeria. Ibis, **104**: 415-416.— Fewer Palaearctic birds winter in the region of Lagos, southern Nigeria, than in more northern parts of Nigeria; although the northern areas on the fringes of the Sahara are less diverse and drier in habitat. It is suggested that the large contingent of resident birds in southern Nigeria may discourage migrants through competition. Further, the birds known in the southern part are open-area species, and less conspicuous ones may be present but unnoticed. More extensive field work is needed to resolve the problem.—G. C.
- ROWLEY, J. S. 1962. Nesting of the birds of Morelos, Mexico. Condor, 64: 253-272. —Annotated list of nest observations on 67 species of birds.—R. E. P.
- SAVILE, D. B. O. 1961. Swainson's Thrush on Meighen Island, Franklin District. Canadian Field-Nat., 75: 262.
- Scorr, D. M. 1961. Summer Tanager at London, Ontario. Canadian Field-Nat., 75: 264.
- SERVENTY, D. L. 1962. Die Wiederentdeckung von Atrichornis clamosus (Gould) in Westaustralien. J. f. Orn., **103**: 213–214.—The rediscovery of the Scrub-bird Atrichornis clamosus, a bird once thought to be extinct, in western Australia. It is pointed out (by the translator) that with the exception of the Kangaroo Island Emu (Dromaius diemenianus) no species of Australian bird has become extinct since Europeans began to settle the country.—W. J. B.
- SICK, H. 1962. Die Buntschnepfe, Nycticryphes semicollaris, in Brasilien. J. f. Orn., 103: 102-107.—The painted snipe was found only once in Brazil before the author collected 10 specimens on the Lagoa Feia, State of Rio de Janeiro; 5 were adults in breeding condition. No marked difference exists between the sexes in coloration and size.—W. J. B.
- SPRUNT, A., JR. 1962. Birds of the Dry Tortugas 1857–1961. Florida Nat., 35: 129– 132.—Continuation of an annotated list.—E. E.
- SQUIRES, W. A. 1962. Fulvous Tree Duck in New Brunswick. Canadian Field-Nat., 76: 120.
- STEVENSON, H. M. 1962. Evidence of the breeding of two new species of warblers in Florida. Florida Nat., 35: 134-135.—American Redstart and Worm-eating Warbler near Laurel Hill, June, 1962.—E. E.
- Voous, K. H. 1961. [Birds collected by Carl Lumholtz in Eastern and Central Borneo.] Nytl. Magasin f. Zoologi, 10 (supp.): 125–180.—Annotated list of the birds collected by Lumholtz in the years 1913–17. The collection contains 883 specimens of 203 species and is in the Zoological Museum of the University of Oslo.—W. J. B.
- WAUER, R. H. 1962. A survey of the birds of Death Valley. Condor, 64: 220-233.— Since 1893 records of 232 species of birds have been reported from the parts of Death Valley below sea level. Most are migrants, but 16 species are known to nest.—R. E. P.
- WILLE, U., and D. EBERHARDT. 1962. Die Brandagans (*Tadorna tadorna*), ein neuer Brutvogel an Niederrhein. J. f. Orn., **103**: 47-49.—The first breeding records of the Sheldrake from the lower Rhine in Germany (near the Dutch border) are recorded. These are of interest as the Sheldrake generally breeds near salt or brackish water; records so distant from salt water are rare.—W. J. B.
- YAKOBI, V. E. 1962. [A genus and species of bird—Passerella iliaca—new for the USSR.] Zool. Zhurnal, 41: 1433.—On Tshukotka, north of Anadyr, in late June, 1961, a male (apparently P. i. unalaschensis), was shot. Testes were well developed; therefore breeding is suspected. (In Russian; English summary.)—F. J. T.

ECOLOGY AND POPULATION

- ASCHOFF, J., and R. WEVER. 1962. Beginn und Ende der täglichen Aklivität freilebenden Vögel. J. f. Orn., **103**: 2-27.—A general discussion of the factors regulating the start and the end of daily activity in free-living birds, with an extensive bibliography.—W. J. B.
- BOCHEŃSKI, Z., and W. HARMATA. 1962. [The birds of the southern border of Kraków-Wieluň Jurassic Ridge.] Acta Zool. Cracoviensa, 7: 483-574.—Both qualitative and quantitative data are given on birds of different communities and fragments of them; for example, ecological analyses of some woods (mainly oakhornbeam), gardens, cemeteries, fields, rocky hills, ponds, pools, and others. The changes in the regional avifauna during the last 120 years, the characteristics of the avifauna of the area investigated, and data on migration and phenology of birds are all discussed. An intelligently written paper, allowing comparison with other regional faunas. (In Polish; English and Russian summaries.)—F. J. T.
- BOYD, H. 1962. Mortality and fertility of European Charadrii. Ibis, **104**: 368-387.— Published data on mortality and fertility of 23 species of wading birds, which either breed in or visit western Europe, are reviewed. Recoveries and recaptures of banded birds indicated mortality was greatest during the first year after fledging, and that larger waders had lower death rates than smaller ones. Closely related species tended to have similar death rates. Information on fertility is meager, and showed wide variation in egg fertility and clutch survival in different populations in different years within the same species, varying from 66 to 96 per cent hatching success and from 40 to 80 per cent chick survival. Few of the waders are doublebrooded, although many will re-nest upon destruction of the first nest.—G. C.
- BRANDT, J. H. 1962. Nests and eggs of the birds of the Truk Islands. Condor, 64: 416-437.—Details of nest construction, location of nests, nesting dates, egg size, description of eggs, and the number of eggs in a clutch for 27 of the 29 regularly breeding species.—R. E. P.
- BUB, H. 1962. Planberingungen am Sandregenpfeifer (*Charadrius hiaticula*). J. f. Orn., **103**: 243-249.—The small Ringed Plover population at Wilhelmshaven was banded from 1948 to 1957. One pair returned every year for six years, another for eight years; one pair maintained the pair bond for over eight years. During this period 92 eggs were laid, of which 46 young hatched. Two birds lived for a minimum of eight years.—W. J. B.
- DEWOLFE, B. B., and R. H. DEWOLFE. 1962. Mountain White-crowned Sparrows in California. Condor, 64: 378–389.—Notes on localities where breeders were found, including habitat descriptions and comments on timing of breeding.—R. E. P.
- GULLION, G. W. 1962. Organization and movements of coveys of a Gambel Quail population. Condor, 64: 402-415.—Winter coveys were composed of congregations of non-breeding adults or of combined broods. Patterns of movement and occupied area varied much and no coveys occupied areas exclusively. Nesting occurred within the general area occupied by the coveys to which the pairs belonged. A considerable interchange of coveys between adjacent areas and possible extensive movements of coveys is suggested.—R. E. P.
- HUNGERFORD, C. R. 1962. Adaptations shown in selection of food by Gambel Quail. Condor, **64**: 213–219.—Analysis of crops of 231 adults from southeastern Arizona correlated with elevation of range, rainfall periodicity, and abundance of spring plant cover.—R. E. P.

KHANEMEDOV, A. I. 1962. [Ecology of the Hungarian Partridge in NE parts of

Azerbaydjan.] Izv. Akad. Nauk Azerb. SSR, Ser. Biol. i Medic. Nauk, 1962(1): 39–51.–Deals with *Perdix cinerea canescens*, distributed in agricultural lands, forest edges, woodlots, grassland, and brush, up to 2,200 m, a.s.l. Density was 30 birds per 100 hectares, clutch size 14–24, about 66 per cent of plant foods were seeds of weeds. (In Azerb.; Russian summary.)—F. J. T.

- KORNJEVEV, A. P. (ed.). 1962. Voprosy ekologii. [Problems in ecology.] Tom. 6. State Publishing House Vysshaya shkola, Moscow. Pp. 1–184.—Summaries of 124 papers read at the 4th ecological conference held in 1962 at Kiev. The papers deal with terrestrial vertebrates. There are 18 papers on birds, covering food habits, distribution, urbanization, population dynamics, ecological physiology, and other subjects. (In Russian.)—F. J. T.
- KRYSHTALJ, A. F. (ed.). 1962. Voprosy ekologii. [Problems in ecology.] Tom. 4. Kiev University Press. Pp. 1–159.—These are summaries of 89 papers read at the 4th ecological conference held in 1962 at Kiev. The papers deal mainly with general ecology, methods and equipment in field and laboratory work. Five are special ornithological papers. (In Russian.)—F. J. T.
- LUDWIG, J. P. 1962 [1963]. A survey of the gull and tern populations of lakes Huron, Michigan, and Superior. Jack-pine Warbler, **40**: 104-119.—Ring-billed and Herring gulls, Common and Caspian terns, in that order of abundance in 1962. Ring-billed Gull population is expanding (96 per cent increase 1960-62); and some two-yearold birds are breeding. Ring-billed Gulls do not compete with Herring Gulls for food, but may compete with Common Terns for nesting areas. Common Tern colonies are variable in size (and existence) from year to year.—R. B.
- MEIDELL, O. 1961. [Life history of the Pied Flycatcher and the Redstart in a Norwegian mountain area.] Nytl. Magasin f. Zoologi, 10: 5-47.—A very complete study of the ecology and nesting habits of these species in Norway. The paper was in manuscript at the author's death in 1942 and has been completely rewritten by Lars von Haartman. The important parts of the study show the correlation between the habitat and the population density of the two species and the nature of the competition between them. These birds have quite separate habitats and feeding methods and each succeeds over the other in its own optimal habitat.—W. J. B.
- PETERS, D. S. 1962. Gedenken zum Revierproblem. Ornith. Mitteil., 14: 161-171.— A general discussion on the functions of the territory in birds, based on the author's study of the Blackbird (*Turdus merula*). Peters concludes that the most important functions of the territory are security of the nest site and guarantee against disturbance from rival conspecific individuals during the period of formation of the pair bond, incubation, and raising the young.—W. J. B.
- SELANDER, R. K., R. F. JOHNSTON, B. J. WILKS, and G. G. RAUN. 1962. Vertebrates from the barrier islands of Tamaulipas, Mexico. Publs. Univ. of Kansas Mus. Nat. Hist., **12**: 309-345.—July bird fauna included 48 species of which Royal and Least terns were the most numerous. At least 11 species (mainly shorebirds and terns) were represented solely by non-breeding summer residents. Failure of these birds (thought to be of pre-breeding ages, one to several years) to migrate northward is said, without discussion, to represent a "saving of energy."—R. B.
- WAGNER, H. O. 1960. Beziehungen zwischen Umweltfaktoren und der Brutzeit, Zahl der Gelege sowie ihrer Grosse. Zool. Anz., 164: 161–172.—A general review of the problem of the correlation between environmental factors and breeding time, number of clutches and their size.—W. J. B.

EVOLUTION AND GENETICS

- ERSKINE, A. J. 1962. Some new data on introgression in flickers from British Columbia. Canadian Field-Nat., 76: 82-87.
- HARRISON, J. M., and J. G. HARRISON. 1963. Comments on a hybrid Red Shoveler \times Northern Shoveler. Bull. Brit. Orn. Club, **83**: 21-25.—An adult drake hybrid of *Anas platalea* and *A. clypeata* shows characters of Australian Shoveler, *A. rhynchotis* (absent in the parents), in color of face and in having white facial crescent; also has white collar like Mallard; these characters are sometimes transiently suggested in first winter drakes of *A. clypeata*.—E. E.

GENERAL BIOLOGY

- ALLAN, R. G. 1962. The Madeiran Storm Petrel Oceanodroma castro. Ibis, **103b**: 274-295.—With a twelve-month sexual cycle, this petrel first arrives in the Ascension Island area in July and lays most of its eggs in November. Descriptions are given of growth and development of chicks, records of egg losses, chick losses and injuries to adults and chicks.—J. W. H.
- ASHMOLE, N. P. 1962. The Black Noddy Anous tenuirostris on Ascension Island Part 1. General Biology. Ibis, **103b**: 235–273.—Several breeding colonies were studied for a complete year and part of another. There is discussion of breeding synchrony and the relationship between breeding and molting cycles.—J. W. H.
- BILEWICZ, S. 1961. [On mechanic armament for grinding materials in the muscular stomach of the Turkey hen.] Przeglad Zoologiczny, 5: 140–141.—Grit found in the gizzards of domestic turkeys weighs up to 55 gm and consists of several hundred pieces. (In Polish; English summary.)—F. J. T.

BOYER, G. F. 1961. A loon's nest with three eggs. Canadian Field-Nat., 75: 109-110.

- BROWN, R. H. J. 1961. The power requirements of birds in flight. Symposia of the Zool. Soc. London, no. 5: 95–99.—The problem of power for avian flight is reviewed. Brown concludes that aerodynamic efficiency may be greater than might be expected, but that energy release in the muscles of flying animals is certainly higher than in non-flying animals. There are oversights, however, such as the use of faulty physiological data; e.g., results of Pearson's study of hummingbird metabolism, which Lasiewski has recently shown to be too high.—W. J. B.
- COMFORT, A. 1961. Survival curves of some birds in the London zoo. Ibis, **104**: 115-117.-Survival curves are presented for the Peafowl, Reeves Pheasant, Brush Turkey (*Alectura lathami*), Sacred Ibis, and a night heron (*Nycticorax nycticorax*). —J. W. H.
- CZARNECKI, Z. 1962. [Some biological observations on the Scarlet Grosbeak Carpodacus erythrinus e. Pall.] Przeglad Zoologiczny, 6: 171-176. (In Polish; English summary.)—The Scarlet Grosbeak has recently invaded Poland, eastern Germany, and northern Czechoslovakia. It occupies habitats characteristic of it throughout its range: low and humid willow-alder thickets on river banks. Data on song, nesting, measurements, and migration are presented. Some photos are given.—F. J. T.
- DAVIES, S. J. J. F. 1961. Magpie Goose behaviour. Australian Mus. Mag., 13: 314-318.—Notes on Anseranas semipalmata in the wild and in captivity.—The male mates with two females, which lay in one nest eggs which the three parents incubate; the trio remains together throughout the year. Experiments indicate that young flee from all kinds of objects drawn overhead, whether or not shaped like hawks; they must learn which are safe. In captivity artificial vertical fibrous material inserted in a board simulated reedy growth sufficiently to induce nest building. —E. E.

- DELVINCT, W. 1962. Die Beziehungen zwischen Brutgrösse und Jungengewicht beim Star. J. f. Orn., **103**: 260-265.—Artificial broods (16) of 2 to 7 young were formed using 69 nestlings hatched the same day from clutches of the same size. Weights were obtained until 18 days; until 12 days the average weight was obtained by weighing the whole brood. In favorable weather conditions, no difference was seen between the broods. In unfavorable conditions, the mean weight of large broods was significantly less than that of normal or small broods. Mortality of young was greater in large broods.—W. J. B.
- DORWARD, D. F. 1962. Comparative biology of the White Booby and the Brown Booby *Sula* spp. at Ascension. Ibis, **103b**: 174-220.—White Boobies had an annual breeding cycle, while Brown Boobies possessed an eight-monthly one; both species had breeding seasons spanning from six to seven months.—J. W. H.
- GUSEV, V. M., A. A. GUSEVA, et al. 1962. [The role of birds in the transfer of ticks and fleas. Materials collected in the Azerbayjan SSR.] Zoologicheskiy Journal, 41: 905-912. (In Russian; English summary.)—Examined were 3,147 birds of 182 species, collected in recent years, mostly in spring and fall. From these, 3,351 ticks (94 per cent larvae and nymphs) were collected on 426 birds of 46 species and an additional 1,867 ticks in 12 nests of 6 bird species; over 70 per cent of the ticks were found on ground-feeding birds. Of the fleas, 303 belonged to 15 species. The important role of birds in the transportation, distribution, and dispersal of these ectoparasites (only a few specific to birds) over the country and other parts of Asia, mainly during the migration, is stressed. The materials are tabulated according to parasite and bird species and seasons.—F. J. T.
- HALL, V. M. 1961. Observations of Wood Duck broods. Passenger Pigeon, 23: 83-85.
- HAMERSTROM, F., F. HAMERSTROM, and D. D. BERGER. 1961. Nesting of Short-eared Owls in Wisconsin. Passenger Pigeon, 23: 46-48.
- HARRIS, R. D. 1961. House Sparrows burrowing in asbestos insulation. Canadian Field-Nat., 75: 162-163.
- HAVERSCHMIDT, F. 1962. Beobachtungen an der Schleireule, *Tyto alba*, in Surinam. J. f. Orn., **103**: 236-242.—The Barn Owl found in Surinam belongs to the subspecies *hellmayri*. The biotope, nesting including clutch size and length of nestling period, and food are described. Small opossum, bats, and rodents comprised the major portion of the diet. Frogs were second, while birds, lizards, and insects formed a very minor part of the diet.—W. J. B.
- HÜE, F., and R. D. ETCHÉCOPAR. 1962. Rapaces termitophiles en Ethiopie. L'Oiseau, 32: 174-176.—Raptors found feeding on flying sexual brood of termites in Africa, included vultures, kites, eagles, and falcons. The presence of Aquila rapax and Falco peregrinus indicates the broad spectrum of species attracted by termites. (In French.)—E. E.
- Law, C. 1960. The Great Gray Owl of the woodlands. Blue Jay, 18: 14-16.—Notes on the behavior and biology of this uncommon species.—R. W. N.
- LIVERSIDGE, R. 1961. The Wattled Starling (Creatophora cinerea) (Menschen). Annals Cape Prov'l Museums, 1: 71-80.—Results of study of a breeding colony, with comparisons made to previously published information. The species is nomadic. Its association with breeding locusts, feeding habits, and other aspects of its ecology are discussed. Information is presented on the wattle, sexual dimorphism, clinal color variation, and breeding habits. Both sexes participate in nesting activities. Synchronization of breeding in the colonies and its relationship to brief (5 week) duration of colonial existence is discussed.—J. W. H.

- MAKATSCH, W. 1962. Einige Beobachtungen am Brutplatz des Spornkiebitzes Hoplopterus spinosus. J. f. Orn., **103**: 219-228.-The nest and eggs of the Spur-winged Plover in northern Greece are described. The red eye and the concealment of the black-white contrast plumage by long, tan shoulder feathers are well shown in two color photographs.-W. J. B.
- MANNING, T. H., and A. H. MACPHERSON. 1961. A biological investigation of Prince of Wales Island, N. W. T. Trans. Roy. Canadian Inst., **33**: 116-239.—An account of the birds and mammals collected or observed on an expedition in the summer of 1958. The breeding Snow Goose in this region of western Canada (judging by an adult with young) agrees in large size with the Greater Snow Goose, *Chen hyperborea atlantica*, of eastern Canada. One Blue Goose was observed once with Snow Geese, but as none was taken, it was not determined whether that bird was the smaller *Chen caerulescens* or a hitherto unrecorded color phase of *atlantica*.— E. E.

MILLER, R. S. 1961. Partial albino Sandhill Crane. Blue Jay, 19: 112.

- MILSTEIN, P. LE S. 1962. The Angola Kingfisher Halcyon senegalensis. Part I, Biology. Ostrich, 33: 2-12.—General review of the biology of Halcyon senegalensis (including the southern form cyanoleuca) covering habits, ecological requirements, feeding, calls, and breeding.—M. A. T.
- MORGOTCH, L. A. 1961. Watching a heron colony at Horseshoe Lake. Blue Jay, 19: 158-159.—Brief notes on habits of the Great Blue Heron.—R. W. N.
- NERO, R. W. 1960. One-winged ducks. Blue Jay, 18: 76.
- NERO, R. W. 1960. Mallard survives mandible injury. Blue Jay, 18: 77.
- NERO, R. W. 1961. Bank Swallows nesting in gravel stock-pile. Blue Jay, 19: 20-21.
- NOWAK, A., and E. NOWAK. 1962. Weitere Ausbreitung der Turkentaube in Polen und Osteuropa. J. f. Orn., 103: 229-235.—A detailed account of the spread of the Collared Turtle Dove in Poland and eastern Europe as far as Estonia and Finland. —W. J. B.
- OSTOFOROFF, L. R. 1960. Impressions of a Boreal Owl. Blue Jay, 18: 57-60.— Sketches and brief behavioral notes.—R. W. N.
- PHILLIPS, A. R. 1958 (stated publ. date 31 March, actual date 19 June 1959). Las pecularidades del Sastrecito (*Psaltriparus* Familia Paridae) y su incubación. Anales Inst. de Biol. Univ. Nac. Aut. de México, **29**: 355-360.—Skutch (*Ibis*, 98: 69-93, 1956) erroneously concluded that in *Psaltriparus minimus* more than one female incubated the eggs laid in one nest by one female and that 12 young in 3 nests were all males. The error resulted from lack of collecting and proper understanding of variation in age and sex. All juveniles have blackish ear coverts and dark irides; first prebasic molt is complete. Adult males have a dark iris, adult females a pale iris. A second clutch may be laid in a nest still containing nestlings. There is no valid evidence of an unbalanced sex ratio.—R. W. D.

PUTNAM, W. L. 1961. Starling feeds nestling Robin. Canadian Field-Nat., 75: 52-53.

- ROWDON, L. F. 1961. Yearly occurrence of Common Grackles in dry lobster pots. Canadian Field-Nat., 75: 242-244.—Grackles, for some unknown reason, regularly enter and are trapped in stored lobster pots.—R. W. N.
- SHAUB, M. S. 1960. Unusual plumage variations of the eastern Evening Grosbeak. Passenger Pigeon, 22: 18-21.
- SIMKISS, K. 1962. Viviparity and avian reproduction. Ibis, **104**: 216-219.—Suggests that viviparity has not developed in birds because of their ovulatory pattern, which would result in a graduated series of developing embryos. To achieve vivi-

parity, this pattern would have to be changed or birds would have to produce only one offspring at a time.—J. W. H.

- STENHOUSE, D. 1962. A new habit of the redpoll *Carduelis flammea* in New Zealand. Ibis, **104**: 250–252.—Introduced redpolls in New Zealand are plaguing fruitgrowers, principally of apricots and peaches, by pecking the fruit blossoms, causing failure to produce fruit. The habit is seemingly newly acquired.—J. W. H.
- STONEHOUSE, B. 1962. The tropic birds (genus Phaethon) of Ascension Island. Ibis, 103b: 124-161.—This paper presents detailed life history data on P. athureus aethereus and P. lepturus ascensionis, from observations made on Boatswain Bird Island, near Ascension Island. Data are given primarily on lepturus which was twice as common as its congener.—J. W. H.
- TERRILL, L. M. 1961. Cowbird hosts in southern Quebec. Canadian Field-Nat., 75: 2-11.
- TSUNJIKHIN, S. P. 1962. [On the systematics and ecology of the Willow Warbler *Phylloscopus collybitus lorenzii* Lor.] Zoologicheskiy Journal, **41**: 954–956.—Nests of this warbler in the central Caucasus are described, eggs of both this and the race *abietunus* are compared, and the rareness of hybridization between these subspecies, due to almost complete ecological isolation, is stressed. (In Russian; English summary.)—F. J. T.
- VERHEVEN, R. 1962. Note sur la mue alaire chez quelques oiseaux du centre Africain (Accipitres, Bucerotidae, Muscicapidae). Gerfaut, 52: 255-274.—Notes on the wing molt of certain African hawks, hornbills, and flycatchers. Contends that variation in molt from "descendant" method in certain large hawks is phenotypic, not genetic. (In French.)—E. E.
- WALTER, H. 1962. Vergleichende Untersuchungen an den Raubmöwen Stercorarius parasiticus und longicaudus. J. f. Orn., 103: 166-179.—A comparison of the molt, wing and tail feathers, and color pattern of the Parasitic and Long-tailed jaegers with a key to the species of the genus Stercorarius, including juvenile plumages.—W. J. B.
- WILLIAMS, G. R. 1962. Extinction and the land and freshwater-inhabiting birds of New Zealand. Notornis, 10: 15-32.—Surveys extinctions of Recent birds both before and after European settlement, as well as species in some danger of extinction. Since European settlement 5 full species and 5 additional subspecies have become extinct, and about 13 additional forms (including 10 more species) are in danger. A few may have already disappeared.—E. E.

MANAGEMENT AND CONSERVATION

- BRANDER, T. 1962. [Aesen von Kifernnadeln beim Auerhuhn, Tetrao urogallus.] Lounais-Hameen Luonto, Forssa, 13: 104-105.—Concerns feeding by Capercaillie on pine needles of treetops and on young plants in autumn and winter. Some plants were severely injured and the injury has mistakenly been ascribed to moose. (In Finnish; German summary.)—F. J. T.
- MARCHLEWSKI, J. H. 1957. [The artificial rearing of tetraonids.] Przeglad Zoologiczny, 1: 202-209.—The artificial rearing of Capercaillie, Black Grouse, and Hazel Grouse is dealt with on the basis of the author's extensive experiments. Mortality of chicks, even after four months, was very high. Cause was enterohepatitis of a fungous origin. The pathogene is *Candida albicans*, not, as Tyzzer (1919) stated, *Mastigophora* sp. (In Polish; English summary.)—F. J. T.

MIGRATION AND ORIENTATION

- AGRON, S. L. 1962. Evolution of bird navigation and the earth's axial precession. Evolution, 16: 524-527.—Sauer and other adherents to the theory of star navigation by birds have almost completely neglected the evolutionary implications of the relatively rapid changes in star positions. Because of earth's axial precession, stars and seasons reverse their relationships completely every 13,000 years. There are also slower changes in star pattern due to "proper motion" of stars. Any ability of birds to navigate by the stars must thus be continuously evolving at a rate not incompatible with known rates of evolutionary change in certain mammals.— K. C. P.
- DARROW, H. N. 1963. Direct autumn flight-line from Fire Island, Long Island to the coast of southern New Jersey. Kingbird, 13: 4-12.—Many shorebirds and the Peregrine Falcon (occasionally other diurnal migrants) regularly cut across a corner of the Atlantic, rather than follow the coastline. There is a discussion of the reasons for the presence of so many land bird migrants along the south shore of Long Island.—E. E.
- DELVINCT, W. 1962. Les migrations des Étourneaux, Sturnus vulgaris L., bagués ou reprises en Belgique. Gerfaut, **52**: 59-172.—An elaborate study based on 2,508 recoveries, illustrated by numerous maps. Of Belgian Starlings about 70 per cent are sedentary, and 5 to 10 per cent migratory to the Atlantic coast of France. Passage migrants through Belgium winter in southern England and the French coast and breed northeast of Belgium; changes of winter quarters are frequent. (In French.)—E. E.
- GOLLOP, J. B. 1960. Mallard goes north after nesting. Blue Jay, 18: 77.—A band recovery 500 miles north.—R. W. N.
- HICKEV, MARGARET B. 1960. Migrants at airport ceilometers. Passenger Pigeon, 22: 23-26.
- HOUSTON, C. S. 1962. Common Tern recovery from Cook Islands. Blue Jay, 20: 58-59.
- McLACHLAN, G. R. 1962. Eighth ringing report. Ostrich, **33**: 29-40.—Report of birds ringed in South Africa 1 July 1957 to 30 June 1958. The most spectacular recoveries are two steppe buzzards, *Buteo buteo*, ringed in the Transvaal and recovered in Russia.—M. A. T.
- NERO, R. W. 1960. A record of flight altitude of Whistling Swans. Blue Jay, 18: 159.
- NERO, R. W. 1961. Regina TV tower bird mortalities-1961. Blue Jay, 19: 160-164.

OBITUARIES AND BIOGRAPHIES

- NIETHAMMER, G. 1962. Arnold Fehr. v. Vietinghoff-Riesch [†]. J. f. Orn., 103: 294-296.
- VAN TASSEL, R., and L. VAN MEEL. 1962. René Verheyen (1907-1961). Notice Biographique. Inst. Roy. Sci. Natur. Belgique, 38: 1-14.—Contains a complete bibliography of the papers of the very productive and controversial Belgian systematist. (In French.)—E. E.

PHYSIOLOGY

BLJUMENTAL, T. J. 1961. [Molt and fatness of some passerine birds of the Kurische Nehrung in the autumn migration of 1959.] *In*: Ekologiya i migracii ptic Pribaltiki. Riga, Latv. SSR, pp. 295-304.—Autopsied were 3,800 passerine birds of 35 species. Subcutaneous fat was examined visually on four apteries and estimated according to a scale of four points. About 70 per cent of the birds were in molt; 25 per cent of all birds were very fat. Molt does not hinder the accumulation of fat (author's conclusion). (In Russian.)—F. J. T.

- GEORGE, J. C., and C. L. TALESARA. 1962. Histochemical demonstration of certain oxidizing enzymes in the pectoralis major muscle of the rosy pastor (*Pastor roseus*), goose (*Anser albifrons*) and fowl (*Gallus domesticus*). J. Anim. Morph. and Physiol., 9: 59-62.—Of these species the *Pastor* has the highest concentration of cytochrome oxidase and various dehydrogenases in the pectoralis major muscle; the *Gallus* has the smallest concentrations.—W. J. B.
- JAHN, M., and C. S. SHAFFNER. 1962. Developmental dissociation of the feather tissues in ragged wing chicks. J. Exp. Zool., **150**: 155–159.—Chicks carrying ragged wing show structural abnormalities and finally feather losses among large wing feathers. The condition was traced to developmental dissociation of ectodermal and mesodermal components of the feather germ.—J. W. H.
- KING, A. S., and D. C. PAYNE. 1962. The maximum capacities of the lungs and air sacs of *Gallus domesticus*. J. Anat., **96**: 495-503.—Casts were made of the lungs and air sacs of adult domestic chickens (heavy breeds), using "Marco resin 26 C," injected by means of gravity flow. Estimates were made of the maximum capacity of the whole respiratory tract (550 ml 3, 300 ml 2), the lungs (70 ml 3, 35 ml 2) and of the minimal air in the lungs after collapse (8 ml 3, 6 ml 2). From these figures, the maximum volume of the lungs was found to be 60 ml 3 and 30 ml 2. Associated studies showed that the amplitude of breathing was about 130 ml 3, 93 ml 2, or about twice as much as the lungs could hold in the male and three times the lung capacity in the female. These measurements confirm the concept that the air sacs act as bellows to maintain a forced draft through the lungs during heavy breathing.—W. J. B.
- MORTON, M. L., and L. R. MEWALDT. 1962. Some effects of castration on a migratory sparrow (*Zonotrichia atricapilla*). Physiol. Zool., **35**: 237-247.—Gonadal recrudescence and the concomitant release of gonadal hormone has a modifying role in the total physiological preparation for and manifestation of migration. —J. W. H.
- NAGRA, C. L., R. P. BREITENBACH, and R. K. MEYER. 1962. Effect of caloric intake and castration on body weight in the male pheasant (*Phasianus colchicus*). J. Exp. Zool., **150**: 95-101.
- VÖLKER, O. 1962. Experimental Untersuchungen zur Frage der Entstehung roter Lipochrome in Vogelfedern. J. f. Orn., **103**: 276–286.—Red birds differ from yellow birds mainly through the presence of red lipochromes in their feathers. Canaries were fed different dyes in their food, which affected their color, whether yellow or red. It is suggested that lipochromes may be formed from yellow carotinoids in the foodstuffs.—W. J. B.

TAXONOMY AND PALEONTOLOGY

BERLIOZ, J. 1962. Notes critiques sur quelques espèces de trochilidés. L'Oiseau, 32: 135-144.—Critical notes on the following hummingbirds: Glaucis hirsuta (subspecies insularum questioned), Phaethornis eurynome (paraguayensis held a valid subspecies), Leucippus baeri (types in author's collection), Agyrtrina fimbriata (variation reviewed), Uranomitra violiceps and U. viridifrons (genus separable from Amazilia, viridifrons not an immature stage of violiceps, being either a subspecies or a species), Amazilia castaneiventris, and Iolaema schreibersi whitelyana (additional example). (In French.)—E. E. July]

- HOOGERWERF, A. 1963. A new race of the Spotted Munia, Lonchura punctulata (Linn.). Bull. Brit. Orn. Club, 83: 36-40.—L. p. baweana subsp. nov. from Bawean Island, Indonesia.—E. E.
- IRWIN, M. P. S. 1962. The specific status of *Batis soror* and its relationship to *Batis molitor*. Ostrich, **33**: 17-28.—In southern Africa, the evidence shows conclusively that *B. soror* is a species distinct from *molitor*.—M. A. T.
- KOEPCKE, M. 1962. "Crypturellus rubripes": das Männchen von Crypturellus transfasciatus Sclater & Salvin. J. f. Orn., **103**: 272-275.—C. rubripes was described and known only from the single type specimen, a male. Recently collected specimens of this "species" were compared with C. transfasciatus and found to be identical with males of the latter species.—W. J. B.
- LAWSON, W. J. 1962. Variation in the South African populations of the coucal *Centropus superciliosus* Hemprich and Ehrenberg. Ostrich, **33**: 45-47.—*C. s. burchelli* and *fasciipygialis* are recognized from southern Africa; plumages and molts, which vary between races, are discussed.—M. A. T.
- LAWSON, W. J. 1963. Geographical variation in *Batis pririt* (Vieillot). Bull. Brit. Orn. Club, **83:** 29–32.—Recognizes two races of this African muscicapid.—E.E.
- PARKES, K. C. 1962. New subspecies of birds from Luzon, Philippines. Postilla, 67: 1-8.—Gallicolumba luzonica griseolateralis, Copsychus saularis heterogynus, Dicaeum aeruginosum striatissimum, Dicaeum hypoleucum lagunae, Dicaeum pygmaeum salomonseni.—E. E.
- PAYNTER, R. A., JR. 1961. Notes on some Corvidae from Nepal, Pakistan, and India. J. Bombay Nat. Hist. Soc., 58: 379-386.—New subspecies: Dendrocitta vagabunda bristoli, West Pakistan. Taxonomic and distributional data on D. vagabunda, Nucifraga caryocatactes, and Corvus macrorhynchos. Weights of these and other Corvidae from the Indian subcontinent are given. In C. macrorhynchos the longwinged, long-tailed montane race levaillantii is smaller (weighs less) than the shortwinged, short-tailed lowland intermedius, suggesting that appendicular measurements may not indicate relative mass even within the same species.—E. E.
- RYZIEWICZ, Z. 1961. [Finding of third specimen of Archaeopteryx.] Przeglad Zoologiczny, 5: 122-126.—Describes the third specimen, found in 1956 at Solenhofen, and compares it with the previously found specimens. The taxonomic status and some morphological features are discussed. (In Polish; English summary.)— F. J. T.
- TIMMERMANN, G. 1959. Drei neue Sturmvogelfederlinge. Zool. Anz., 162: 148-153. —Three new species of Mallophaga of the genus *Saemundssonia* are described from the Procellariiformes. This genus is also known from the Charadriiformes. Previously it was believed that the occurrence of *Saemundssonia* on procellariiform birds was the result of accidental infestation, but the discovery of these new species proves that the shearwaters are a normal host for this genus of bird louse and suggests a close relationship between the Procellariiformes and Charadriiformes.— W. J. B.
- VAURIE, C., and D. AMADON. 1962. Notes on the honey buzzards of eastern Asia. Amer. Mus. Novitates, no. 2111: 11 pp.—Chiefly a review of mainland races of *Pernis ptilorhynchus*. Individual, sexual, and geographic variation in plumage and size are discussed. The only two valid races of this group are *orientalis* and *ruficollis*, with *gurneyi* a synonym of the latter. The six races now grouped as *P*. *ptilorhynchus* may represent two species.—K. C. P.
- WHITE, C. M. N. 1963. Notes on African Estrildinae. Bull. Brit. Orn. Club, 83: 25-29.—Taxonomic notes on eight genera.—E. E.