RECENT LITERATURE

EDITED BY JOHN WILLIAM HARDY

Anatomy and Embryology

Beecher, W. J. 1962. The bio-mechanics of the bird skull. Bull. Chicago Acad. Sci., **11**: 10–33.—An excellent general discussion of the avian skull and jaw apparatus considered as a machine. The kinetic property of the upper jaw is covered in very clear terms with comments on its various functional significances. Variations, such as the long bill of the curlews and the bill-tip grasping of mud-probing woodcocks and kiwis, are included.—W. J. B.

Bock, W. J. 1962. Feather tracts in the Corvidae—a correction. Ibis, **104**: 257–259.—Because of a transposition of figures in Lowe's published description of feather tracts in his studies of the passerine genus *Picathartes*, the dorsal spinal feather tracts of *Corvus frugilegus* and *corone* were figured as strikingly different. They are not, according to a re-examination of the specimens originally examined by Lowe. The drawing of the tract attributed to *C. frugilegus* was in fact a drawing of the condition in *Pica pica*.—J. W. H.

Fisher, H. I. 1962. The hatching muscle in Franklin's Gull. Wilson Bull., **74**: 166–172.

Liversidge, R. 1961. Pre-incubation development of *Clamator jacobinus*. Ibis, **103a**: 624.—In the Jacobin Cuckoo there is indication that copulation precedes each ovulation and that ovulation precedes laying by nearly 48 hours. The critical factor determining length of incubation is the stage of development at which the embryo hatches, rather than rate of development.—J. W. H.

Manger Cats, C. S. W. 1961. Casque and bill of *Rhinoplax vigil* (Forst) in connection with the architecture of the skull. Verh. d. Kon. Ned. Akad. van. Wetensch, Afd. Natuurkunde, Tweede Reeks, Dell, **53**: 1–51, 12 figures.—The cranial morphology of the peculiar hornbill, *Rhinoplax*, is described along with its functional significance. Particular attention is paid to the various articulations and ligaments. In spite of the extremely heavy casque and thick bony skull, *Rhinoplax* has a well developed hinge between the brain case and upper jaw; the upper jaw is fully kinetic. It is of interest that most hornbills have a relatively light skull in spite of their huge bill and casque, but *Rhinoplax* has the heaviest bill of all birds in absolute terms and perhaps the heaviest relatively. The internal trabeculae are described with the aid of excellent figures.—W. J. B.

Niethammer, G. 1961. Sonderbildungen an Ösophagus und Trachea beim Weibchen von *Turnix sylvatica lepurana*. J. f. Orn., **102**: 75–79.—The crop of the female *Turnix* is spindle-shaped and forms a bulb when inflated, which is correlated with its loud booming courtship call. Mucous glands are lacking in the crop. A dilatation is present in the trachea above the syrinx. The male esophagus has the normal mucous glands and a straight unspecialized trachea.—W. J. B.

Rutschke, E., and E. Stresemann. 1961. Über das Filament am längsten Schwanzfederpaar der Paradieswitwe (*Steganura paradisaea*). J. f. Orn., **102**: 470–475.—Describes the fine structure of the filament present on the base of each feather of the long central pair of tail feathers. The filament functions as a "zipper" to hold the broad feathers together.—W. J. B.

Schmidt, W. J. 1961. Über luftführende Federstrahlen beim Blutfasen (*Ithaginis sinensis*) nebst Bemerkungen über Luftgehalt von Federn überhaubt. J. f. Orn., **102**: 34–40.—The occurrence and importance of air in the feathers is discussed,

and a terminology for the location of air is suggested. Air dilutes the green, but not the red or melanin colors in the feather-barbs of *Ithaginis sinensis*.—W. J. B.

Schmidt, W. J. 1961. Über das Schleimhäutchen der Vogeleischale, insbesondere bei *Phoenicopterus, Aptenodytes* und *Spheniscus*. J. f. Orn., **102**: 456–467.—Eggs of birds have a covering of mucus when laid; this layer dries and rips to allow for gaseous exchange. Some birds' eggs have a thicker covering of mucus, which, when it dries, forms a definite pattern of pores. The mucus layer is easily ripped off, either when still wet or when dry, so that it can be easily overlooked even in species possessing a thick layer.—W. J. B.

Völker, O. 1961. Bemerkungen über ein grünes, nicht carotinoides Pigment in Kleingefieder von *Rollulus roulroul* (Galli). J. f. Orn., **102**: 270–272.—The pigment of the green body feathers of *Rollulus roulroul* was investigated because of the variety of green pigments in birds. Studies to date show that the green feather pigment in this bird is not a carotenoid one; investigation on the nature of the pigment is continuing.—W. J. B.

Völker, O. 1961. Die chemische Charakterisierung roter Lipochrome im Gefieder der Vögel. J. f. Orn., **102**: 430–438.—A general paper on the occurrence of red lipochromes in bird feathers. The occurrence of astaxanthin and rhodoxanthin is summarized, after which the method of extracting a third pigment—canthaxanthin—is described and its distribution in bird feathers is given.—W. J. B.

Behavior

Bangert, H. 1960. Untersuchungen zur Koordination der Kopf- und Beinbewegunger beim Haushuhn. Zeits. f. Tierpsychol., **17**: 143–164.—Coordination of head and leg movements were studied in walking chickens. The head moves in either absolute or in relative coordination with the automatic, dominant leg rhythm. The nodding of the head may be released by the shifting of the retinal image alone. (English summary.)—S. E. W.

Bateson, P. P. G., and R. C. Plowright. 1959. Some aspects of the reproductive behaviour of the Ivory Gull. Ardea, **47**: 157–172.—The authors conclude, on the basis of behavior, that *Pagophila eburnia*, although aberrant, is a true gull.—S. E. W.

Blase, B. 1960. Die Lautäusserungen des Neuntöters (*Lanius c. collurio* L.) Freilandbeobachtungen und Kaspar-Hauser-Versuche. Zeits. f. Tierpsychol., **17**: 293–344.—Observations in the field and on 21 birds reared in the laboratory (some from the egg) are related to the ontogeny of vocalization of the Red-backed Shrike. (English summary.)—S. E. W.

Brown, R. G. B. 1961. The aggressive and distraction behaviour of the Western Sandpiper *Ereunetes mauri*. Ibis, **104**: 1–12.—An analysis of breeding biology and aggressive and distraction behavior, from work near Hooper Bay, western Alaska, 1960.—J. W. H.

Cullen, J. M. 1960. The aerial display of the Arctic Tern and other species. Ardea, **48**: 1–37.—The aerial courtship and agonistic behavior of *Sterna paradisea* are described.—S. E. W.

Eibl-Eibesfeldt, I. 1961. Über den Werkzeuggebrauch des Spechtfinken *Camarhynchus pallidus*. Zeits. f. Tierpsychol., **18**: 343–346.—Description and photographs of the Woodpecker Finch using cactus spines to obtain food.—S. E. W.

Frisch, O. v. 1961. Zur Jugendentwicklung und Ethologie des Stelzenläufers (*Himantopus himantopus*) und der Brachschwalbe (*Glareola pratincola*). Zeits. f.

Tierpsychol., **18:** 67–70.—Stilts and pratincoles were reared from the first day after hatching. (English summary.)—S. E. W.

Geyr von Schweppenburg, H. Freih. 1961. Zum Verhalten der Stock- und Schnatterente. J. f. Orn., **102:** 140–148.—Comments on the behavior of the Mallard and the Gadwall with special reference to an earlier paper by Bezzel (1959, Any. Orn. Ges. Bayern). Deals mainly with the problem of aerial displays.—W. J. B.

Gibb, J. A. 1961. L. Tinbergen's hypothesis of the role of specific search images. Ibis, **104:** 106–111.—A test of the hypothesis, using tits (Paridae) and a larva [that of the eucosmid *Ernarmonia conicolana* (Heyl.)]. Contrary to expectations under the hypothesis, tits probably found larvae when they were at low density but rejected them as an uneconomical food item. Predation intensified with increasing density of the larvae, but slacked at higher densities, which, the author states, indicates that the birds had learned how many larvae to expect in a given situation (the learning taking place during moderate abundance of the food source). Application of "predation by expectation to a wide range of concealed foods at which birds . . . leave recognisable traces of their attacks" is possible, although "it probably cannot account for the reduced predation on caterpillars at high densities recorded by Tinbergen. . . ."—J. W. H.

Kipp, F. A. 1961. Zur Flugbiologie von Mauerläufer und Wiedehopf. J. f. Orn., **102:** 273–280.—The large broad wings of the Wall Creeper permit this bird to have a butterfly-like flight compared to the nuthatches (*Sitta*). The striking pattern and color of the wings can be seen only during flight. The sexes are very quiet during courtship and the wing patterns may serve as signals allowing the birds to recognize other members of the same species.—W. J. B.

Kuroda, N. 1961. Ontogeny of behaviours in the Grey Starling. Misc. Reports Yamashina's Inst. for Ornith. and Zool., **3:** 83–112.—Lists 50 "behaviours" (including vocalizations) noted in hand-raised *Sturnus cineraceus* chicks, and notes age at first appearance of each, plus subsequent development. ". . . behaviours were first weakly released to have enough developed by the time they are needed, as in the relation of the development of preening behaviour to the feather growth. Self-sustaining instincts, such as food pecking occurred at a certain time of the growth in the absence of any object for that action, and others, such as drinking, bathing, or aggressive behaviours, were released to the object." (In Japanese; diagrams, legends, and long summary in English.)—K. C. P.

Kuroda, N. 1961. The roosting behaviour system in the Grey Starling. Misc. Reports Yamashina's Inst. for Ornith. and Zool., **3:** 123–125.—Differentiates between sleeping and roosting behavior. The latter is postulated to depend on a series of "appetites" which are stimulated by progressively lowered light intensity in the evening. (In Japanese; English diagram and summary.)—K. C. P.

Kuroda, N. 1961. The stomach stones of the young Adelie Penguins. Misc. Reports Yamashina's Inst. for Ornith. and Zool., **3:** 126–128.—Stones were found packed in the proventriculi of two young *Pygoscelis adeliae* from a Japanese base in Antarctica. These are analyzed in detail (size, number, weight, kind of stone). "Judging from literature on the Emperor Penguin, they were apparently fed by parent and the function of giving weight for deep diving may not be rejected at once until other function becomes clear." (In Japanese; English summary.)—K. C. P.

Löhrl, H. 1961. Vergleichende Studien über Brutbiologie und Verhalten der Kleiber *Sitta whiteheadi* Sharpe und *Sitta canadensis* L. J. f. Orn., **102:** 111–132.—A comparison of the courtship, song, and nesting habits of the Corsican *Sitta white-*

headi and the North American *Sitta canadensis*; both species were studied in natural conditions and in captivity. These forms are similar morphologically and in some of their behavioral traits. There are differences, especially in call notes, and Löhrl concludes that the two forms should be separated specifically.—W. J. B.

Manley, G. H. 1960. The swoop and soar performance of the Black-headed Gull, *Larus ridibundus* L. Ardea, **48**: 37–51.

Mohr, H. 1960. Zum Erkennen von Raubvögeln, insbesondere von Sperber und Baumfalk, durch Klein Vögel. Zeits. f. Tierpsychol., **17**: 686–699.—Behavior of various small birds towards Sparrowhawks, etc., is described from field observations and experiments. (English summary.)—S. E. W.

Mohr, H. 1960. Über die Entwicklung einiger Verhattensweisen bei handaufgezogenen Sperbern (*Accipiter n. nisus* L.) und Baumfalken (*Falco s. subbuteo* L.). Zeits. f. Tierpsychol., **17**: 700–727.—A comparative description of the development of some behavior patterns such as calls, food recognitions, sleeping postures, bathing, and courtship behavior of Sparrowhawks and Hobbies. (English summary.)—S. E. W.

Navas, J. R. 1960. Comportamiento agresivo de *Fulica armillata* Vieillot. Rev. Mus. Argen. Cien. Nat., **6**: 103–129.—Description with drawings of the aggressive behavior and displays of the Red-gartered Coot in Argentina. (In Spanish; English summary.)—E. E.

Owen, D. F. 1959. Some aspects of the behaviour of immature Herons, *Ardea cinerea*, in the breeding season. Ardea, **47**: 187–191.—Interactions of one year old herons with adults in flight and at the nest site are described. Some immatures build small nests without laying eggs in them. Two records of immatures breeding with adults are given. It is assumed that most herons commence breeding when two years old.—S. E. W.

Reinert, V. J. 1960. Unterscheidungsvermögen einer Dohle für verschieden schnelle Metronom-Schlagfolgen. Zeits. f. Tierpsychol., **17**: 114–124.—Conditioning experiments show that a Jackdaw could easily discriminate between various frequencies of metronome beats. (English summary.)—S. E. W.

Thielcke, G. 1961. Stammesgeschichte und geographische Variation des Gesanges unserer Baumläufer (*Certhia familiaris* L. und *Certhia brachydactyla* Brehm). Zeits. f. Tierpsychol., **18**: 188–204.—Vocalizations of *Certhia familiaris* and *C. brachydactyla* analyzed with a sound spectrograph. (English summary.)—S. E. W.

Thielcke, G. 1961. Ergebnisse der Vogelstimmen-Analyse. J. f. Orn., **102**: 285–300.—A general summarizing paper on various aspects of recent studies of bird songs using sound spectrographs. Some topics covered are terminology for the various types of song, function of calls and songs, ontogenetical development, instinctive and learned parts of song, and phylogenetic and geographic variation. —Long bibliography.—W. J. B.

Thielcke-Poltz, H., and B. Thielcke. 1960. Akustisches Lernen verschieden alter schallisolierter Amseln (*Turdus merula* L.) und die Entwicklung erlernter Motive ohne und mit kunstlichem Einfluss von Testosteron. Zeits. f. Tierpsychol., **17**: 211–244.—Vocalizations of Blackbirds raised in acoustic isolation and immatures injected with testosterone are compared with normal wild birds. (English summary.) —S. E. W.

Wall, W. von de. 1961. Die Ausdrucksbewegungen der Kapente, *Anas capensis* Gmelin. J. f. Orn., **102**: 24–27.—A brief description of the courtship behavior of the Cape Duck made at the Severn Wildfowl Trust.—W. J. B.

Diseases and Parasites

Keymer, I. F. 1958. A survey of the causes of mortality in British birds and the significance of wild birds as disseminators of disease. Veterinary Rec., **70**: 713–720, 736–740.

Keymer, I. F. 1961. Infectious sinusitis of pheasants and partridges. Veterinary Rec., **73**: 1034–1038.

Keymer, I. F., and P. K. C. Austwick. 1961. Moniliasis in partridges (*Perdix perdix*). Sabouraudia, J. International Soc. Human and Animal Mycology, **1**: 22–29.

Distribution and Annotated Lists

Blake, E. R. 1961. Notes on a collection of birds from northeastern Colombia. Fieldiana: Zool., **44**: 25–44.—Report on 111 species from the Río Arauca and northern Boyacá, Colombia. Eleven forms are recorded for the first time from Colombia.—M. A. T.

Blake, E. R. 1961. Birds of the Sierra Macarena, eastern Colombia. Fieldiana: Zool., **44**: 69–112.—Report on 315 species taken in this isolated mountain range in eastern Colombia; four are recorded for the first time from Colombia. An element of the Andean subtropical fauna reaches the higher altitudes (ca. 5,000′) on Macarena.—M. A. T.

Cuello, J., and E. Gerzenstein. 1962. Las aves del Uruguay. Lista sistemática, distribución y notas. Com. Zool. Mus. Montevideo, **6**(93): 1–193.—A carefully prepared annotated list of the birds of Uruguay, with current nomenclature, synonymies, and data on Uruguayan distribution. Contains brief history of ornithology in Uruguay, good bibliography, and maps of Uruguay indicating the principal localities mentioned and of South America outlining the major zoogeographic divisions of the continent (according to Cabrera and Yepes). No information is provided on zoogeographic or ecologic subdivisions of Uruguay itself. For a South American country the avifauna is not rich. 370 species are listed, of which 31 are regarded as not fully confirmed, and three (*Passer domesticus*, *Chloris chloris*, and *Carduelis carduelis*) are established European species. Yet considering that Uruguay is small, entirely in the Temperate Zone, and devoid of elevations above 2,000 feet, a total of 67 native families and 264 native genera may not be small. Other than shorebirds, few North American migrants reach the country. Of major general interest are data showing that many breeding species are migratory, leaving Uruguay after the southern hemisphere summer. (In Spanish.)—E. E.

Curio, E. 1961. Zur Kenntnis der Vogelwelt Süd-Mazedoniens. J. f. Orn., **102**: 133–139.—A list of birds observed during a trip through southern Macedonia.—W. J. B.

Elgood, J. H., and R. G. Donald. 1962. Breeding of the painted snipe *Rostratula benghalensis* in southwest Nigeria. Ibis, **104**: 253–256.—The species has not hitherto been recorded breeding in Western Africa. The paper is divided into discussions of indications of breeding in West Africa, records of the species in southwest Nigeria, observations at Ibadan and Iwo, nests, newly hatched chicks, and a general analysis of the history and factors in the distribution and breeding of the species.—J. W. H.

Fleming, R. L., and M. A. Traylor. 1961. Notes on Nepal birds. Fieldiana: Zool., **35**: 447–487.—Report on recent collections by the senior author, primarily from far west Nepal. Included are seven species and six subspecies taken for the first time in Nepal.—M. A. T.

Helmstaedt, K. W. 1961. Faunistische Bemerkungen über Vögel der slowakischen Hohen Tatra. J. f. Orn., **102:** 308–316.—A list of birds seen in the High Tatra Mountains of eastern Czechoslovakia with comments on the several biotopes found in this area. The characteristic plants and birds for each biotope are given.—W. J. B.

Huyskens, G., and H. Voet. 1962. [*Aythya collaris* (Donovan), the American Ring-necked Duck, a new bird for Belgium]. Gerfaut, **52:** 54–58.—A male Ring-necked Duck seen in Antwerp harbor on 25 November 1960, and again on 17 November and 26 December 1961, apparently the fifth European report since 1955. (In Flemish; French summary.)—E. E.

Ivanauskas, T. 1961. Faunistische Mitteilungen aus Litauen. J. f. Orn., **102:** 468–469.—New records of birds from Lithuania.—W. J. B.

Johansen, H. 1961. Die Vogelfauna Westsibiriens. III. Teil (Non-Passeres) 11 Fortsetzung: *Limicolae II* (*Tringa* bis *Haematopus*). J. f. Orn., **102:** 41–67.

Johansen, H. 1961. Die Vogelfauna Westsibiriens. III. Teil (Non-Passeres). 12 Fortsetzung und Schluss: *Otides* bis *Galli*. J. f. Orn., **102:** 237–262.—With an index for the entire series of papers by species, pp. 263–269.

Johansen, H. 1961. Die Entstehung der westsibirischen Vogelfauna. J. f. Orn., **102:** 375–400.—A general work on the origin of the birds of West Siberia—the area between the eastern and the western parts of the Palearctic region. The paper summarizes Johansen's work on the birds of West Siberia, which has been published in many parts in the J. f. O. At present the western limits of Siberian birds and the eastern limits of European birds cross one another in the eastern part of the West Siberian lowlands just to the west of the Middle Siberian Plateau. Johansen traces the history of the birds of this area from the end of the Tertiary when the elevation of the Urals resulted in a dry continental climate to the east and probably in a very early period of glaciation. The spread of the ice sheets separated the birds into eastern and western groups; these came together after the ice retreated. Those forms which were not forced out formed a Transpalearctic group. Later periods of cold again split the fauna into eastern and western groups; even some of the Transpalearctic birds were split. At present a mixing of the eastern and western groups is taking place with the European birds pushing farthest into this region.—W. J. B.

Loustau-Lalanne, P. 1961. The birds of the Chagos Archipelago, Indian Ocean. Ibis, **104:** 67–73.—A description of the islands is followed by a résumé of ornithological investigation of them and notes on the species recorded by the author in two short visits in November–December, 1960.—J. W. H.

Navas, J. R. 1961. El pato de ala azul, *Anas discors*, capturado en Argentina. Neotropica, **7:** 58.—Blue-winged Teal taken in Argentina in September, 1958. One of two individuals (one bearing a U. S. band was released).—E. E.

Olrog, C. C., and J. R. Navas. 1961. *Sicalis luteola* en la fauna Argentina. Neotropica, **7:** 55–57.—The Puna Yellow Finch has often been confused with other members of its genus. Definite examples of this form from Jujuy and Salta, Argentina, and from Bolivia.—E. E.

Peitzmeier, J. 1961. Zur Biotopwahl der Türkentaube (*Streptopelia decaocto* Friv.). J. f. Orn., **102:** 281–284.—The colonization of the Collared Turtle Dove in the Münster Region of Northwestern Germany is discussed in connection with the environment.—W. J. B.

Sibley, F. C. 1962. The Yellow-bellied Egret *Mesophoyx intermedius* in Nigeria. Ibis, **104:** 250.—Since *Mesophoyx* and *Casmerodius* can be easily confused in the

field, it is possible that *Mesophoyx*, thought previously to be only casual in West Africa, is in fact a regular visitor to western Nigeria and a common resident in the Lake Chad area of northern Nigeria.—J. W. H.

Sick, H. 1961. Die Spechte *Trichopicus cactorum* und *Scapaneus leucopogon* in Brasilien. J. f. Orn., **102:** 401–403.—The woodpeckers *Trichopicus cactorum* and *Scapaneus* (= *Phloeoceastes*) *leucopogon* are new to the list of Brazilian birds. Both are restricted to southern South America.—W. J. B.

Smith, F. T. H. 1962. An Australian sight record of the Buff-breasted Sandpiper (*Tryngites subruficollis*). Australian Bird Watcher, **1:** 185.—A detailed account of example seen by numerous observers at Altona, near Melbourne, Victoria, from 17 March to 7 May 1962.

Thompson, M. C. 1962. Noteworthy records of birds from the Republic of Mexico. Wilson Bull., **74:** 173–176.—Fifty-six species from widely scattered localities. —J. T. T.

Watson, G. E. 1961. Aegean bird notes including two breeding records new to Europe. J. f. Orn., **102:** 301–307.—Comments on rarer species collected on two recent trips to Greece and Turkey. Two species, the Spur-winged Plover (*Hoplopterus spinosus*) and the Isabelline Wheatear (*Oenanthe isabellina*), were found nesting; both are new to the list of breeding birds of Europe.—W. J. B.

Ecology and Population

Blondel, J. 1962. Ecologie des oiseaux des monts des Ksours (Sahara Septentrional). Terre et la Vie, **109:** 209–251.—The ecological distribution of birds in an area of northern Sahara.

Bowen, W., N. Gardiner, B. J. Harris, and J. D. Thomas. 1962. Communal nesting of *Phalacrocorax africanus*, *Bubulcus ibis*, and *Anhinga rufa* in southern Ghana. Ibis, **104:** 246–247.—The egret and the shag had not been recorded as nesting in southern Ghana previously. Survival figures in the nestings of the three species compared favorably with figures given by Lack for other nidicolous species, despite the crowded conditions of the colony.—J. W. H.

Drost, R., E. Focke, and G. Freytag. 1961. Entwicklung und Aufbau einer Population der Silbermöwe, *Larus argentatus argentatus*. J. f. Orn., **102:** 404–429.—In 1948, two pairs of Herring Gulls were present near the Ornithological Research Institute Building at Wilhelmshaven. The population grew to 51 pairs in 1955, more than 100 in 1956, and at least 150 pairs in 1960. The increase was due mainly to migration from neighboring colonies; the result of breeding which took place for the first time in 1953, accounted for 5 per cent or less of the total breeding population. Nesting success on rocky breeding grounds is as good as on other areas; on the average 100 eggs result in 25 fledglings. One breeding pair produces, on the average, 0.7 fledglings a year. Most birds stayed near the colony but others straggled up to 360 km away. On the basis of banding returns, the average life expectancy was calculated as 9.5 years after maturity, hence an adult Herring Gull reaches an age of 13.5 years (4 years as immature + 9.5 adult years).—W. J. B.

Dunmire, W. W. 1962. Bird populations in Hawaii Volcanoes National Park. Elepaio, **22:** 65–70.—Recent census figures, when compared with counts in the 1940's, reveal decreases in the native birds and increases in exotic species, particularly the white-eye.—P. H. B.

Ennion, E. A. R., and D. Ennion. 1962. Early breeding in Tenerife. Ibis, **104:** 158–168.—The authors were present at this Canary Island locality in January and

February, 1961. In a one-half mile square area of mixed terrain from sea level to 2,500 ft., the populations, breeding, and ecology of resident birds were investigated. Early breeding begins in January with the first flush of insects and vegetation resulting from winter snow and rain. There follows a drought, after which (in March) renewed spring rains bring further breeding. Such events are considered normal.—J. W. H.

Graczyk, R. 1961. (Studies on variability, biology and economic status of the Blackbird, *Turdus merula* L.) Ekologia Polska, Ser. A, **9**: 453–485. (In Polish; German summary.)—There are no dimensional and color differences between the urban and forest populations of the Blackbird. Marked differences occur, however, in the song and calls of these populations: urban birds use warning calls more frequently, have a simpler song, and produce three broods yearly (forest birds produce only two). About two-thirds of the forest population migrate, while the urban birds are generally sedentary. The genetic fixation of both biological and behavioristic characters of urban Blackbirds has been examined or tested by transplantation of forest birds to urban habitats and of young of urban birds to the forest. Results cannot as yet be evaluated. Endozoochorous distribution of plant diaspores takes place over short distances via Blackbirds.—F. J. T.

Medway, Lord. 1962. The swiftlets (*Collocalia*) of Niah Cave, Sarawak. Ibis, **104**: 228–245.—*C. maxima* and *salangana* can orient by echo-location. Nidification of *C. maxima*, *salangana*, and *esculenta* is discussed in detail. Breeding seasons, the equatorial environment, diet of the swifts, patterns of daily movements, predation, and the role of the environment in regulating breeding are discussed. The first two species have long, annually recurrent breeding seasons, September to April. *C. esculenta* has three brief breeding seasons annually. Because of periodic food shortages, nestling mortality is high for all species. Predation seems of limited importance in controlling population size. There is evidence that day-length has a role in regulation of breeding in *C. esculenta*, but food seems to be the major factor of regulation in the other two species. In all three, social factors function in synchronization of breeding activity.—J. W. H.

Ratcliffe, D. A. 1961. Breeding density in the peregrine *Falco peregrinus* and raven *Corvus corax*. Ibis, **104**: 13–39.—Population limiting factors effecting relative stability of breeding density in 19 counties of the British Isles are examined. Raven populations have remained fairly stable and not 15 per cent below maxima since 1945. Peregrines show indications of local decline but the species had numerical stability equal to that of the raven in the period under consideration. Golden Eagles compete for nest sites, while under severe conditions peregrines and ravens may compete with each other. Increased nesting density does not follow high breeding success. The raven has non-breeding surplus populations. Territorialism seems to be the factor controlling maximum nesting density and has evolved in relation to food supply, so that numbers of predators are permanently balanced against this factor.—J. W. H.

Schüz, E., and J. Szijj. 1961. Vom Weissstorchbestand in Deutschland 1934 bis 1958. J. f. Orn., **102**: 28–33.—A survey of the population of White Storks in Germany from 1934 to 1958. The number of nesting pairs for each German Land (= state) is given for the two years. Except for Bavaria which had more storks in 1958 than in 1934 (186 pairs versus 119), all sections had fewer breeding storks in 1958. The total loss in all of Germany was about 50 per cent of the number in 1934. At present (1958), 4,569 pairs of storks breed in Germany, most found in the lowlands of northern Germany.—W. J. B.

Semyonov-Tjan-Shanskij, O. I. 1960. (On ecology of tetraonids.) Trudy Laplandskogo gos. zapovednjika (Works of the Lapland State Reserve), tom. **5:** 1–318. Moscow. Price, Rub. 1 40 Kop. (In Russian; English summary.)—This important book deals with tetraonids in the Murmansk area, with sections on distribution, habitats, ecology, foods, growth of chicks, and seasonal variation in weight of adults, molt and methods of age-determination, parasites and predators, census methods, and dynamics of numbers, as well as migrations of *Tetrao urogallus*, *Tetrastes bonasia*, *Lyrurus tetrix*, *Lagopus lagopus*, and *L. mutus*. Long summary in English (9 pages) and 7 pages of lit. cit., both Russian and foreign.—F. J. T.

Stonehouse, B. 1962. Ascension Island and the British Ornithologists' Union centenary expedition 1957–9. Ibis, **103b:** 107–123.—This paper serves to introduce others in this number [103b(2)]. All deal with some aspect of the research carried out by the expedition on the birds of Ascension Island.—J. W. H.

Taylor, R. H. 1962. The Adelie Penguin *Pygoscelis adeliae* at Cape Royds. Ibis, **104:** 176–204.—At this Ross Island locality, Adelie Penguins were under daily observation from 23 October 1959 to 26 February 1960. Though the total area used for nesting has remained nearly constant for 50 years, there has been a shift of colonies to sheltered positions. The author marked and observed 44 pairs and 122 nests (eggs and chicks were also marked). Birds begin arriving in mid-October, males first, and soon begin building nests. Eggs, laid from 4 November to 4 December, were usually two to a clutch. In 65 per cent of nests in which the first egg was lost, a third was laid. There is a decrease in size of successive eggs. Eggs are laid every three plus days. The incubation period ranged from 30 to 39 days. Parental routine is described (females seldom incubate first). Fasting is discussed. Hatching, plumage, care, and development of chicks is described. Chicks left the rookery after about 50 days, but many swam previous to this. Of 600 adults that returned to molt (in February) about two-thirds were non-breeders. Mortality of adults was slight at the rookery. Egg losses were typically due to displacement from nests, or abandonment of nests by adults. Of chick losses 67 per cent were due to Skua predation. Of the eggs 66 per cent hatched, and 75 per cent of the chicks survived to leave for the sea. Breeding seasons at Cape Royds and in the South Orkney Islands are discussed. Availability of food influences length of the breeding seasons at different rookeries.—J. W. H.

Obituaries

Piechocki, R. 1961. Max Schönwetter †. J. f. Orn., **102:** 486–489.—Obituary of Max Schönwetter (1874–1961) with a list of his publications.—W. J. B.

Stresemann, E. 1961. Walter Hoesch †. J. f. Orn., **102:** 490–495.—Obituary of Walter Hoesch (1896–1961) with a list of his publications.—W. J. B.

Physiology

Hinde, R. A. 1961. Temporal relations of brood patch development in domesticated canaries. Ibis, **104:** 90–97.—Development of the brood patch (including defeathering, vascularization, and edematization) and other aspects of reproduction (building, egg-laying, and incubation) are described, with emphasis on the development of the patch in females.—J. W. H.

Howell, T. R., and G. A. Bartholomew. 1961. Temperature regulation in the Sooty Tern *Sterna fuscata*. Ibis, **104:** 98–105.—Studies of thermoregulatory responses of nesting terns to environmental conditions, conducted in July, 1959 and 1960, Mid-

way Island, Pacific Ocean. Temperatures of eggs, young, and adults were studied. Body temperature of adults was higher diurnally than nocturnally, during incubation. Brood patch temperature was higher than incubated eggs without visible embryos, pipped eggs, or brooded hatchlings. Solar radiation causing severe heating is a principal environmental problem of nesting Sooty Terns. Young chicks are shaded from this by adults, older ones seek natural shade and/or lose heat by panting. Body temperature may rise to 45°C and usually stabilizes in the low range of black bulb temperature. Relationships of physiological and behavioral mechanisms of thermoregulation to environment are discussed.—J. W. H.

Lord, R. D., Jr., F. C. Bellrose, and W. W. Cochran. 1962. Radiotelemetry of the respiration of a flying duck. Science, **137:** 39–40.—A miniature radio transmitter (total weight 38 gm.) fastened to the back of a wild Mallard, originally for orientation studies, was found to be telemetering respiration. Average respiration rate of the duck at rest was 14 respirations per minute; while flying, 96 per minute. Certain markings on the recording of the flying bird are attributed to wing beats, indicating a synchronization of two wing beats to every respiration, occurring during exhalation and between respirations.—K. C. P.

Piechocki, R. 1961. Über die Grossgefieder-Mauser von Schleiereule und Waldkauz. J. f. Orn., **102:** 220–225.—The molt of the wing and tail feathers was checked on two captive Barn Owls born June, 1957. The sixth primary (from the inside) was the first to drop in 1958. It was followed by the seventh after 46 days. The rest of the primaries were shed in 1959 and 1960 proceeding from the 6th and going out to the 10th and in to the first in a regular fashion. The cycle started again in 1960 with the 6th primary. The tail molt took place in 1958 and 1959; the outer and innermost pairs of rectrices were shed first; none was replaced in 1960. —W. J. B.

Wagner, H. O. 1961. Beziehungen zwischen dem Keimdrüsenhormon Testosteron und dem Verhalten von Vögeln in Zugstimmung. Zeits. f. Tierpsychol., **18:** 302–319.—This investigation seems to indicate that sexual hormones regulate the intensity of "migratory restlessness," and are more important than many environmental stimuli. (English summary.)—S. E. W.

Weber, H. 1961. Über die Ursache des Verlustes der roten Federfarbe bei gekäfigten Birkenzeisigen. J. f. Orn., **102:** 158–163.—Discusses the causes for the loss of red color from the feathers of captive redpolls; molted feathers are replaced by yellow ones. A number of winter-captured male redpolls were placed in open-air aviaries of different sizes from 21.5 × 17 meters to 11.5 × 5.6 m. Birds in the largest aviaries replaced red feathers with red ones, but those in the smaller cages changed from red to yellow; light, food, temperature, and humidity were equal in all cages. Birds kept in a small cage, thus having yellow feathers, were placed in a large cage, where they then grew red feathers. The author thinks that the ability to fly in the larger aviary may be essential for maintaining the proper physiological condition for producing red pigment.—W. J. B.

Wilson, W. O., H. Abplanalp, and L. Arrington. 1962. Sexual development of *Coturnix* as affected by changes in photoperiods. Poultry Sci., **41:** 17–22.

Taxonomy and Paleontology

Biswas, B. 1961. Further notes on the shrikes *Lanius tephronotus* and *Lanius schach*. Ibis, **104:** 112–115.—Taxonomic controversy concerning specific distinction of these and related shrikes.—J. W. H.

Blake, E. R. 1959. A new species of *Todirostrum* from Peru. Nat. Hist. Misc., Chicago, **171:** 2 pp.—*Todirostrum albifascies* new sp. from Madre de Dios described.—M. A. T.

Blake, E. R. 1959. Two new game birds from Peru. Fieldiana: Zool., **39:** 373–376.—*Crypturellus strigilosus peruvianus* new subsp. from Madre de Dios and *Odontophorus gujanensis rufogularis* new subsp. from Loreto described.—M. A. T.

Blake, E. R. 1961. A new Peruvian race of *Crypturellus obsoletus*. Fieldiana: Zool., **39:** 573–575.—*Crypturellus obsoletus traylori* new subsp. from Marcapata Valley, Cuzco, described.—M. A. T.

Blake, E. R. 1961. Variation in *Myiozetetes luteiventris*. Fieldiana: Zool., **44:** 63–66.—*Myiozetetes luteiventris septentrionalis* new subsp. from Surinam described. —M. A. T.

Blake, E. R. 1962. A new race of *Penelope montagnii* from southeastern Peru. Fieldiana: Zool., **44:** 121–122.—*Penelope montagnii marcapatensis* new subsp. from Marcapata Valley, Cuzco, described.—M. A. T.

Blake, E. R., G. Hoy, and F. Contino. 1961. Variation in the Quail-Dove *Geotrygon frenata*. Fieldiana: Zool., **39:** 567–572.—Four races recognized; *Geotrygon frenata margaritae* new subsp. from Jujuy, Argentina, described.—M. A. T.

Chapin, J. P. 1961. Sibling species of small African honey-guides. Ibis, **104:** 40–44.—*Indicator willcocksi*, *I. meliphilus*, and *I. pumilio*, although similar to *I. exilis* in appearance, are each now regarded by the author as separate species; the range of each of these forms overlaps, in some part, that of *I. exilis*, and extends also outside the range of that form. Recognition of these forms as species greatly reduces the known geographic range of true *I. exilis*, and establishes the existence of three additional species of honey-guides of the *I. exilis* type. Each had been described as species previously, *willcocksi* by Alexander in 1901, *meliphilus* by Oberholser in 1905, and *pumilio* by Chapin in 1958.—J. W. H.

Cheng, T. H., and E. Stresemann. 1961. Ein übersehener Brutvogel der Palaerktis: "*Emberiza*" *siemsseni* (Martens). J. f. Orn., **102:** 152–153.—The breeding of the finch "*Emberiza*" *siemsseni* in "Joujou pa (Kanson S)" China is described. Previously this species was not known to have bred within the Palearctic Region and was excluded from Vaurie's "Birds of the Palearctic Fauna." The taxonomic position of this bird is discussed briefly. It was originally described as a *Junco*, but usually placed in the widespread genus *Emberiza*. After comparing a male specimen of *siemsseni* with the material in the Berlin Museum, Stresemann agreed with the earlier conclusion of Bangs that it should be placed in a separate genus *Latoucheornis*.—W. J. B.

Eisenmann, E. 1962. Notes on nighthawks of the genus *Chordeiles* in southern Middle America, with a description of a new race of *Chordeiles minor* breeding in Panamá. Amer. Mus. Novitates, **2094:** 21 pp.—Field observations and museum specimens suggested existence of a Panamá breeding population of *C. minor*. This was confirmed by the author, who collected an adult female with chick; the former becomes the type of the new race *C. m. panamensis*. Other known Middle American specimens are analyzed, most being northern migrants. Specific distinctness of the West Indian *C. gundlachii* is upheld. Specimens and field observations suggest a Middle American breeding population of *C. acutipennis*; one proven breeding female from Nicaragua is known. This population is tentatively placed with *C. a. acutipennis* of South America. There is color parallelism in populations of the two species of nighthawk; possible correlation with soil color and climate is discussed.—K. C. P.

Jouanin, C. 1962. Inventaire des oiseaux éteints ou en voie d'extinction conservés au muséum de Paris. Terre et la Vie, **109:** 257–301.—Inventory of extinct or almost extinct birds preserved in the Paris museum. Many of these specimens were not listed in Greenway's "Extinct and Vanishing Birds of the World."—E. E.

Kuroda, N. 1961. On the comprehensive species concept: a brief outline. Misc. Reports Yamashina's Inst. for Ornith. and Zool., **3:** 129–131.—"The seven approaches for species analysis may be classified, i.e., (1) Phenotypic or Morphological, (2) Anatomical or Functional, (3) Physiological or Biological, (4) Genotypic or Molecular, (5) Ethological or Behavioral, (6) Populational or Sociological, and (7) Supplementary. These approaches are on the levels of subindividual, individual, and superindividual. Throughout these levels the adaptations of all kinds, endo-, exo-, and socio-adaptations, are universal. These considerations lead to a comprehensive species concept diagrammatically expressed here." (Author's summary.) (In Japanese; summary and diagram in English.)—K. C. P.

Mishima, T. 1961. Note on the Willow-tit from Korea. Misc. Reports Yamashina's Inst. for Ornith. and Zool., **3:** 132–133.—Identifies four fall and winter specimens as *Parus atricapillus baicalensis*. The abstractor would add that this identification agrees with that of Vaurie (Birds Palaearctic Fauna, 1959: 480–481), but apparently does not help to clear up the status of this species in Korea (resident, migrant, or straggler). Note that most ornithologists consider the Willow-tit a separate species, *P. montanus*, not conspecific with the New World *P. atricapillus*.—K. C. P.

Owen, D. F. 1962. Wing length, body weight, and geography. Wilson Bull., **74:** 185.—Because of the known variation in weight of individual birds, data presenting the mean weight of a population is of little value unless the sample is large and the dispersion (e.g., standard deviation) is also reported.—J. T. T.

Rand, A. L., H. Friedmann, and M. A. Traylor. 1959. Birds from Gabon and Moyen Congo. Fieldiana: Zool., **41:** 221–411.—Annotated list of 378 species from Gabon and Moyen Congo. Of particular interest for those species originally described from Gabon, for which fresh topotypical material has long been lacking. —M. A. T.

Rand, A. L., and D. S. Rabor. 1960. Birds of the Philippine Islands: Siquijor, Mount Malindang, Bohol, and Samar. Fieldiana: Zool., **35:** 225–441.—Includes separate lists of the collections from each of the four localities listed in the title, and an added section of taxonomic comments on special species.—M. A. T.

Rand, A. L., and D. S. Rabor. 1961. A new race of crow, *Corvus enca*, from the Philippines. Fieldiana: Zool., **39:** 577–579.—*Corvus enca sierra-madrensis* new subsp. from Sierra Madre, Luzon, described.—M. A. T.

Salomonsen, F. 1961. Notes on flowerpeckers (Aves, Dicaeidae). 4. *Dicaeum igniferum* and its derivatives. Amer. Mus. Novitates, **2057:** 35 pp.—Two lines of radiation are believed derived from *D. igniferum*, one including *D. cruentatum* and *D. trochileum*, the other *D. maugei* and the superspecies *D. hirundinaceum* (in which Salomonsen includes as species *D. hirundinaceum*, *sanguinolentum*, *celebicum*, *monticolum*, and *ignipectus*). These constitute the "most advanced group within the genus *Dicaeum*." One new race: *D. cruentatum simalurense*, from Simalur or Simeulue Island off Sumatra.—K. C. P.

Salomonsen, F. 1961. Notes on flowerpeckers (Aves, Dicaeidae). 5. The genera *Oreocharis*, *Paramythia*, and *Pardalotus* (except the superspecies *Pardalotus striatus*). Amer. Mus. Novitates, **2067:** 24 pp.—Of the two aberrant New Guinea flowerpeckers, *Oreocharis arfaki* is monotypic while *Paramythia montium* has four

races. One of these is described as new: *P. m. alpinum* from Mt. Wilhelmina, Oranje Range, Snow Mountains. *Pardalotus quadragintus* is considered the most primitive of the eight species of the genus, *contra* Mayr and Amadon. *P. rubricatus* has four races, of which *P. r. carpentariae* (Normanton, northern Queensland) is described as new.—K. C. P.

Salomonsen, F. 1961. Notes on flowerpeckers (Aves, Dicaeidae). 6. The superspecies *Pardalotus striatus*. Amer. Mus. Novitates, **2068**: 31 pp.—A complicated evolutionary and taxonomic situation involving five taxa on the borderline between species and subspecies. *P. striatus*, *ornatus*, and *substriatus* are considered "monotypic sibling species," while *P. melanocephalus* and *uropygialis*, which interbreed freely over a broad zone, are considered conspecific. The origin of *P. ornatus* has been much debated; it is exactly intermediate between *striatus* and *substriatus*, and occurs only where these two species overlap. However, it is not known to mate with *striatus*, and does so with *substriatus* only at the periphery of its range. Although there are no known instances of interbreeding between *striatus* and *substriatus*, *ornatus* is interpreted as being of hybrid origin with a selective advantage over the parental types (both of which are rare within the range of *ornatus*). The distributional history of this group is postulated and mapped. Four races are recognized in the *melanocephalus-uropygialis* group, two of which are described as new: *P. m. bowensis* (central eastern Queensland) and *P. m. restrictus* (northern Cape York Peninsula).—K. C. P.

Smith, E. T. 1960. Review of *Pionus maximiliani* (Kuhl). Fieldiana: Zool., **39**: 379–385.—Four races recognized.—M. A. T.

Stresemann, V., and E. Stresemann. 1961. Die Handschwingen-Mauser der Kuckucke (Cuculidae). J. f. Orn., **102**: 317–352.—The pattern of primary feather molt in the Cuculidae is described on the basis of 300 specimens representing almost every genus. The pattern follows the transilient mode (a new term) indicating that the molt proceeds by forward or backward leaps across one or more adjoining quills. The starting mode may be random or may be orderly; the latter condition is restricted to certain parasitic cuckoos of the subfamily Cuculinae. The transilient mode permits each growing feather except the outermost one to be flanked on both sides by a full grown neighbor. The particular form of molt exhibited by the different genera is felt to be a good clue to affinities within the family.—W. J. B.

Stresemann, V., and E. Stresemann. 1961. Die Handschwingen-Mauser der Eisvögel (Alcedinidae). J. f. Orn., **102**: 439–455.—The pattern of primary molt in the kingfishers provides additional support for the classification of this family by W. deW. Miller. The subfamily Daceloninae (including *Pelargopsis*) have a descending molt starting with the first (innermost) primary. The Alcedininae also have a descending molt, but from two centers, one represented by the first primary, the other by the seventh. In the Cerylinae the molt is more or less irregular and never follows the descending mode.—W. J. B.

Traylor, M. A. 1960. A new race of *Emberiza striolata*. Nat. Hist. Misc., Chicago, **175**: 2 pp.—*Emberiza striolata sanghae* new subsp. from French Sudan described.

Traylor, M. A. 1962. New birds from Barotseland. Fieldiana: Zool., **44**: 113–115. —*Mirafra apiata jappi* new subsp. and *Calandrella conirostris makawai* new subsp. from Kalabo, Barotseland, Northern Rhodesia, described.—M. A. T.