

RECENT LITERATURE

EDITED BY FRANK MCKINNEY

ANATOMY AND EMBRYOLOGY

- JOLLIE, M. 1957. Avian anatomy and the anatomist. *Condor*, **59**: 394-397.—Emphasis is placed upon different interpretations of the same muscle by different anatomists. Individual variation as described in the literature may simply be a matter of differences in interpretation.—D. W. J.
- VESELOVSKY, Z. 1957. Die Schwimmbewegungen der Tauchenten und die anatomische Vergleichung des Gattung *Anas* und *Aythya*. Johann Friedrich Naumann—Ehrung: 56-60. Deutscher Kulturbund, Berlin. Describes (with photographs) the diving and underwater swimming movements of the Pochard (*Aythya ferina*), and compares the anatomy of *Aythya* with that of *Anas* (diagrams).—E. E.
- WILLIAMSON, F. S. L., and R. A. NORRIS. 1958. Data on relative heart size of the Warbling Vireo and other passerines from high altitudes. *Wilson Bull.*, **70**: 90-91.—Heart weight relative to body weight for 24 species from mountains of California. *Vireo gilvus* had an unusually high ratio.—J. T. T.

BEHAVIOR

- ANDERSON, A. H., and A. ANDERSON. 1957. Life history of the Cactus Wren. Part I: winter and pre-nesting behavior. *Condor*, **59**: 274-296.—This represents a twenty-year study of a banded population on a ten-acre suburban plot. In the report are data on the construction and use of roosting nests, song and call notes, territoriality (winter and breeding), and pair-formation.—D. W. J.
- BRACKBILL, H. 1958. Nesting behavior of the Wood Thrush. *Wilson Bull.*, **70**: 70-89.—A detailed description of all phases of the nesting of *Hylocichla ustulata*.—J. T. T.
- CASTORO, P. L., and A. M. GUHL. 1958. Pairing behavior of pigeons related to aggressiveness and territory. *Wilson Bull.*, **70**: 57-69.—Laboratory experiments with *Columba livia* showed that the most aggressive males competed more successfully in pairing when there were many males to one female. When the sex ratio was about equal, the possession of territories by males enabled all males to pair.—J. T. T.
- FICKEN, R. W., and M. S. FICKEN. 1958. Head-scratching in *Seiurus* (Parulidae) and other passerines. *Ibis*, **100**: 277-278.—Two Ovenbirds (*S. aurocapillus*) hand-raised from the age of six days by the authors, always scratched directly. Hand-raised Waterthrushes (*S. motacilla* and *noveboracensis*) scratched directly a few times while in the nest, but later scratched indirectly. *Seiurus* seems to be the first example of a genus in which both methods of scratching are seen in the adults. Parulidae joins the Timaliidae as a passerine family with members which scratch directly. Direct scratching in other passerines is reported (Blue Jay and European passerines). The two methods are discussed briefly. A list is given of other captive adult passerines at Cornell University's Laboratory of Ornithology, which scratched indirectly.—J. W. H.
- GRIMM, H. 1957. Zum Verhalten der Amsel bei abnehmender Tageshelligkeit. Johann Friedrich Naumann—Ehrung: 47-55. Deutscher Kulturbund, Berlin. A statistical study of the effect of varying daylight from March to July on the eve-

- ning song of the European Blackbird (*Turdus merula*), including the influence of cloudiness, rain, and wind.—E. E.
- HARTSHORNE, C. 1958. Some biological principles applicable to song-behavior. *Wilson Bull.*, **70**: 41-56.—A series of twelve generalizations concerning bird song are made, e.g., limitations determined by structure, amount and quality of song. Numerous examples illustrate the generalizations.—J. T. T.
- LATHAM, R. M. 1956. Midwinter courtship flights of woodcock in Delaware. *Journ. Wildl. Mgt.*, **20**: 209.—Reports courtships flights of three male woodcock during January, 1955, in the vicinity of Dover, Delaware; the birds were apparently wintering in the area.—R. F. L.
- PETERS, S. S. 1957. Brood capture involving conflict between two female mallards. *Wilson Bull.*, **69**: 363-364.—A female *Anas platyrhynchos*, whose brood of three had flown but who was flightless for an abnormally long time, drove off a second female from the latter's brood of ten and reared nine of them. Another case of brood capture is reported.—J. T. T.
- PRESTON, F. W. 1957. The look-out perch as a factor in predation by crows. *Wilson Bull.*, **69**: 368-370.—Observations suggest that *Corvus brachyrhynchos* needs lookout perches for successful predation on ducks and other ground-nesting birds.—J. T. T.
- RAND, A. L. 1958. Patterns in the use of left and right limbs in vertebrates. *Wilson Bull.*, **70**: 92-93.—A brief summary of the literature.
- ROBINSON, G. 1957. Observations of pair relations of White-headed Woodpeckers in winter. *Condor*, **59**: 339-340.
- SPIERS, D. H. 1957. The notes of the Long-eared Owl. *Ont. Field Biologist*, **11**: 19-21.
- STOTTS, V. D. 1958. The time of formation of pairs in Black Ducks. *Maryland Conservationist*, **35** (4): 11-15.—Substantial numbers of *Anas rubripes* found to be paired throughout year. Adults apparently pair soon after passing flightless stage. Immature females probably begin to pair (age 3 to 7 months) before immature males.—H. B.
- SUMMERS-SMITH, D. 1958. Nest-site selection, pair formation and territory in the House-sparrow, *Passer domesticus*. *Ibis*, **100**: 190-203.—Sexual dimorphism, sedentary habits, and fixed nest-sites are important factors in the existence of this species. Young House-sparrows become independent 2-4 weeks after leaving the nest. They flock in grassland areas early, and later in grainfields where they are joined by the adults. In October and again in January and February parties of young investigate nest-sites. Juvenal and adult males take up permanent sites soon after the latter period and defend these sites. Egg laying is unusual before April, though mating occurs frequently before this. Once House-sparrows have bred they normally remain faithful to their mates and nest-sites for life. There are exceptions imposed by conditions such as plentiful nest-sites. Pair formation usually occurs, from February through the nesting season and in autumn, by replacement, when one bird of a pair dies. First-year males which do not become paired this way select nest-sites and may attract young females to pair. Although some males never acquire mates, a male which loses its mate has no difficulty getting another. Birds forming pairs late in the season probably are birds from early nestings in the same season. Sex recognition is by plumage. A male in display, postures, shivers, and gives a *chirrup* note. The display is a version of an advertising display of the species. Usually no display is involved in the acquisition of a new mate after a former mate is lost during the season. Bigamy is not

common and not very successful when it occurs. House-sparrows are colonial and each pair defends its nest-site. Because of the faithfulness of pairs to nest-sites, it seems probable that spread of populations to new areas is accomplished by young birds.—J. W. H.

- WHITAKER, L. M. 1957. Comments on wing-flashing and its occurrence in Mimidae with uniformly colored wings. *Wilson Bull.*, **69**: 361-363.—“Wing-flashing” needs to be defined more exactly because some descriptions do not make clear whether the behavior is similar to that of *Mimus polyglottos*.—J. T. T.
- WILLIAMS, F. M. 1958. Interspecific defense of roost site by Loggerhead Shrike. *Wilson Bull.*, **70**: 95-96.—*Lanius ludovicianus* drove away all birds which entered its roosting tree in the day.—J. T. T.

DISEASES AND PARASITES

- CARRIKER, M. A., JR. 1957. Neotropical miscellany No. 11. A new species and subspecies of *Ardeiphagus* from Colombia. *Novedades Colombianas*, **3**: 163-166. New forms of Ischnocera (bird-lice) found on the tiger-herons *Tigrisoma salmoni* and *T. l. lineatum*. *Ardeiphagus* has hitherto been reported only from the Boat-billed Heron (*Cochlearius*).—E. E.
- O'MEARA, D. C. 1956. Blood parasites of some Maine waterfowl. *Journ. Wildl. Mgt.*, **20**: 207-209.—Reports incidence of blood parasites among a large sample of wild ducks in Maine; the blood smears were taken mainly from ducks caught in banding traps during the summers of 1945, 1946, and 1953. Three groups of blood parasites were found: *Leucocytozoon* spp., *Haemoproteus* spp., and *Microfilaria* spp. Combined infections involving all possible groupings of the three parasites were recorded. Among 437 black ducks and 499 wood ducks the incidence of single infection was 76.0 and 52.1 per cent *Leucocytozoon*, 28.8 and 23.6 per cent *Microfilaria*, and 9.8 and 56.9 per cent *Haemoproteus*, respectively; 16.9 per cent of the black ducks and 12.4 per cent of the wood ducks were not infected. A difference in the incidence of parasitism was recorded from different ecological areas. New hosts (ducks) for the blood parasites are also reported.—R. F. L.

DISTRIBUTION AND ANNOTATED LISTS

- BAILLIE, J. L. 1957. Recent additions to Ontario's bird list. *Ont. Field Biologist*, **11**: 1-3.
- BAILLIE, J. L. 1958. Six old yet new Ontario breeding birds. *Ont. Field Biologist*, **12**: 1-7.—Breeding records for Redhead, Golden Eagle, Sandhill Crane, Forster's Tern, Rock Dove, and Fox Sparrow.—F. M.
- BASILIO, A. 1957. *Caza y Pesca en Annobón. Aves de la Isla. La Pesca de la Ballena.* 1-98. Instituto de Estudios Africanos (Cosejo Superior de Investigaciones Científicas), Madrid, Spain. 45 pesetas. The first 64 pages of this booklet are devoted to the birds of Annobón, an island in the Gulf of Guinea, just south of the Equator. 22 species are listed, many of them passage migrants. There is some information on breeding season and behavior.—E. E.
- BEHLE, W. H. 1958. The birds of the Raft River Mountains, northwestern Utah. *Univ. of Utah Biol. Series*, **11**, 6, 40 pp.—The third paper of a series dealing with the avifauna of western Utah. Introductory sections describe the region and its ecologic formations, and comparisons are made with avifauna of adjacent areas. 172 kinds (species and subspecies) of birds are known from the region. The systematic list gives information on status and habitat and in many cases subspecific relationships are considered in detail.—F. M.

- BLAKE, E. R. 1958. Birds of Volcán de Chiriquí, Panama. *Fieldiana, Zool.*, **36**, no. 5: 499-577.—A report of a collection of 1611 birds by Señor Tolef B. Mönliche, made over a period of twenty years, containing detailed taxonomic, distributional and ecological notes, and dates of arrival and departure of migrants. Almost all specimens were taken on the Pacific slope at elevations between about 5,000 and 10,500 feet, a few on the Caribbean side of the continental divide. 235 forms are reported.—M. A. T.
- FELTEN, H. and J. STEINBACHER. 1955. Zur Vogelfauna von El Salvador. *Senck. Biol.*, **36** (1/2): 9-20. Forschungs-Institut Senckenberg, Frankfurt am Main, Germany. Report of a collection of 199 specimens, 84 forms, taken in El Salvador.—E. E.
- FELTEN, H. and J. STEINBACHER. 1955. Contribuciones al conocimiento de la avifauna de El Salvador. *Comun. Inst. Trop. Cient.*, **4** (1/2): 1-36. Univ. de El Salvador, San Salvador, El Salvador. Report on the same collection mentioned above, but with additional notes on ecology, behavior, molt condition, weights and stomach contents.—E. E.
- FOSTER, J. B. 1957. Snow and Blue Geese nesting in the southern arctic. *Ont. Field Biologist*, **11**: 22.—Reports nesting near Eskimo Point, at Cape Henrietta Maria, and near Churchill.—F. M.
- KUX, Z., S. SVOBODA and K. HUDEC. 1955. Vezechnis der Avifauna Mährens. *Acta Musei Moraviae*, **40**: 156-219. 12 photos. Annotated check-list of the birds of Moravia, Czechoslovakia. (In Czech and German; Russian summary.) 333 species are listed from Moravia (356 known from all Czechoslovakia); 184 are known to breed (210 in all Czechoslovakia), including four introduced game birds, among them the Turkey, now almost extirpated.—E. E.
- LAMM, D. W., and M. T. HORWOOD. 1958. Species recently added to the list of Ghana birds. *Ibis*, **100**: 175-178.—This paper reports ten additional species not previously known from Ghana, according to Bannerman's "The Birds of Tropical West Africa" (1930-51). Species include *Pseudogyps africanus*, *Porzana marginalis*, *Ortyxelos meiffrenii*, *Sterna f. fuscata*, *Otus s. scops*, *Pachyoccyx v. validus*, *Anthus cervinus*, *Cisticola emini admiralis*, *Lamprocolius splendidus chrysonotis*, and *Hypochera ultramarina neumanni*. An additional form, *Xanthophilus a. aurantius* was previously but erroneously reported, and is here definitely established as a breeding bird of Ghana.—J. W. H.
- MAKATSCH, W. 1958. Ornithologische Beobachtungen zwischen Euphrat und Tigris. *Vogelwelt*, **79**(1): 1-8. Observations in Irak. (In German.)
- MUNSON, H. A. 1958. Winter record of Grasshopper Sparrow in Columbia County. *Kingbird*, **8**(2): 42. Specimen taken Jan. 16, 1958 in eastern New York.
- NORTON, W. J. E. 1958. Notes on birds in the Elburz Mountains of north Persia. *Ibis*, **100**: 179-189.—Observational data are given on 42 species, the status of which seemed to differ from that reported in the literature by Stresemann, Meiklejohn, et al. An additional 24 species were recorded. The area is briefly described.—J. W. H.
- OLROG, C. C. 1956. Un aguila nueva para la Argentina. *Hornero*, **10** (2): 172-173. First record of *Oroaëtus isidori* from Argentina.—E. E.
- OLROG, C. C. 1956. Contenidos estomacales de aves del noroeste argentino. *Hornero*, **10** (2): 158-163. Stomach contents of certain birds from northeastern Argentina.—E. E.
- PARTRIDGE, W. H. 1956. Un nuevo dormilón para la fauna de Argentina y Para-

- guay. Hornero, **10** (2): 169-170. Four specimens from Misiones, Argentina, and one from Paraguay identified as *Caprimulgus serico-caudatus* (Cassin), a nightjar of uncertain origin, according to Peters' "Check-list of Birds of the World." Differences in both sexes between this species and *C. rufus*, with which it has been confused, are stated. The reviewer has been informed by J. Bond (*in litt.*) that the original and correct spelling used by Cassin was "*serico-caudatus*," not "*-is*," as spelled in Peters' work, and that specimens are known from southern Brazil.—E. E.
- ROOR, O. M. 1958. The birds of the Andover region. Reprinted from Bull. Mass. Aud. Soc., **41**, no. 9: **42**, nos. 1, 2, 3, 1957-58, 38 pp.—An account of the occurrence and distribution of birds in the Andover region, which lies in the western part of Essex County in northeastern Massachusetts. Short sections deal with topography, climate, good bird areas, changes in status, and summaries of Christmas and Breeding-bird counts. The paper results from a study over sixteen years, 1942-1957.—F. M.
- SIMPSON, J. M., and J. R. WERNER. 1958. Some recent bird records from the Salt River Valley, central Arizona. Condor, **60**: 68-70.
- STEINBACHER, J. 1956. Über eine kleine Vogelsammlung aus El Salvador. Senck. Biol., **37** (5/6): 371-375. Forschungs-Institut Senckenberg, Frankfurt am Main, Germany. A collection of 18 forms, some northern migrants, from El Salvador.—E. E.
- TRAYLOR, M. A. 1958. Birds of northeastern Peru. Fieldiana, Zool., **35**, no. 5: 87-141.—A collection of 807 specimens, chiefly from lowland localities along the Ucayali River, Department of Loreto (236 species), with some from the subtropical zone on the divide between the Ucayali and Huallaga Rivers in Huanuco (69 species). Only four forms collected were common to both zones. Reported as new to Peru: *Spizastur melanoleucus*, *Geranospiza c. caerulescens*, *Piculus chrysochlorus laemostictus*, *Celeus spectabilis*, *Conopias trivirgata berlepschi*, *Caprimulgus s. serico-caudatus*, *Sporophila americana*. Useful taxonomic comments on many species.—E. E.
- VAURIE, C. 1957. Field notes on some Cuban birds. Wilson Bull., **69**: 301-313.—On 33 species of the western tip of Cuba. Methods of catching birds for cage birds are described.—J. T. T.
- WALKINSHAW, L. H., and M. A. WOLF. 1957. Distribution of the Palm Warbler and its status in Michigan. Wilson Bull., **69**: 338-351.—The first reported nestings of *Dendroica palmarum palmarum* in Michigan are described, along with the habitat, nest site, and nest.—J. T. T.
- ZASTROV, M. 1957. Ornithologische Mitteilungen aus Ellarnaa. Ann. Soc. Tartuensis Res. Nat. Invest. Const. (Ser. nov. in exsilio condita), Lund, **1**: 88-104, 5 figs. (In German).—List of 98 species with brief discussion of habitat.

ECOLOGY AND POPULATION

- BALOGH, J. 1958. Lebensgemeinschaften der Landtiere. Hungarian Academy of Sciences, Budapest: 1-560.—This textbook of ecology with particular reference to terrestrial animals emphasizes the community point-of-view. There is an analysis of the internal structure and dynamics of the community, succession, and classification of different types. Concepts of dominance and productivity are given special attention. Nearly half of the book is concerned, however, with methods of collecting and measuring invertebrate animal populations. It is here that the author makes his greatest contribution. The section on birds and mammals is

- written by F. J. Turcek of Czechoslovakia. Berndt Heydemann prepared a section on methods of studying communities in man-made habitats. Some 800 citations of literature are listed, approximately equally divided between German and English with a scattering of other languages.—S. C. K.
- BERGER, A. J. 1957. Population density of Alder Flycatchers and Common Goldfinches in *Crataegus* habitats of southeastern Michigan. *Wilson Bull.*, **69**: 317-322.—Data are presented on the nesting of *Empidonax traillii* and *Spinus tristis* in a habitat primarily of shrubby *Crataegus* scattered among herbaceous vegetation. Discussed are nesting density, nest height above ground, nesting success, and other related subjects.—J. T. T.
- BURTON, D. E. (Editor). Winter bird and breeding bird population studies. *Ont. Field Biologist*, **11**: 11-16.—The results of a breeding population study in 1956 (in one area) and winter population studies in 1956-57 (in four localities), all in the Toronto area.—F. M.
- DAVIS, J., and L. WILLIAMS. 1957. Irruptions of the Clark Nutcracker in California. *Condor*, **59**: 297-307.—Fall and winter invasions by *Nucifraga columbiana* into the lowlands of California are discussed and correlations are made with food supply and population size. In California the invasions correlate best with food shortage facing an unusually large population of birds.—D. W. J.
- GOODHART, C. B. 1958. Thrush predation on the snail, *Cepaea hortensis*. *Journ. Animal Ecol.*, **27** (1): 47-57.—The snail is eaten in numbers by *Turdus ericetorum* during June-July and again during Jan.-Mar. when other food is scarce. More pink than yellow shells are taken but there is no differential predation of the various shell banding patterns.—S. C. K.
- GOODWIN, C. E. 1956. Black duck and Mallard populations in the Toronto area. *Ont. Field Biologist*, **10**: 7-18.—In 1931, tame mallards and black ducks were released in Toronto and established themselves on a resident semi-wild basis. These birds have hybridized fairly freely, but mallards have increased rapidly in proportion to black ducks. The author reports what is known of this interesting situation, speculates on the factors which might be influencing the population and suggests some of the problems which should be investigated.—F. M.
- LEPKSAAR, J. 1957. Feldornithologische Reminiszenzen aus Estland (Methodik und Biotope). *Ann. Soc. Tartuensis Res. Nat. Invest. Const.* (Ser. nov. in exsilio condita), Lund, **1**: 65-87, 1 fig. (In German).—Detailed outline of biotopes, with brief notes on birds.
- MACNAB, J. A. 1958. Biotic aspection in the Coast Range Mountains of northwestern Oregon. *Ecol. Mono.*, **28**: 21-54.—Description of a new classification of seasonal aspects in ecological communities, useful also in bird studies.—S. C. K.
- MCCLURE, H. E. 1957. A study of summer bird populations near Tokyo, Japan. *Wilson Bull.*, **69**: 323-332.—Twelve species were regularly recorded in a 100-acre plot of upland farms and farmyards. Population changes are described and discussed.—J. T. T.
- ORIAN, G. H. 1958. A capture-recapture analysis of a shearwater population (with a statistical appendix by P. H. Leslie). *Jour. Animal Ecol.*, **27**: 71-86.—Recoveries of *Procellaria puffinus* banded as nestlings show that most of them do not return to the nesting colony until they are 3-4 years old. Survival rate indicated by banding adults is 50-80 per cent, but other considerations make it probable that it is over 90 per cent per year. A method of testing whether banded birds were being sampled at random is described.—S. C. K.
- SALT, G. W. 1957. An analysis of avifaunas in the Teton Mountains and Jackson

- Hole, Wyoming. *Condor*, **59**: 373-393.—In continuing his studies of ecologic analyses of avifaunas, Dr. Salt has calculated standing crop biomasses for each avifauna and category therein. Comparisons are made with avifaunas from other parts of the country. The author suggests that proper analyses of avifaunas may be used as indices of metabolism and efficiency of the biotic community.—D. W. J.
- UDVARDY, M. D. F. 1958. Ecological and distributional analysis of North American birds. *Condor*, **60**: 50-66.—Here is another attempt to analyze in a major fashion the avifauna of North America and to compare it with European avifauna. This is accomplished by selecting ten ecological groups, roughly equivalent to biomes, and by tabulating species and genera common to both continents. In the final analysis the author concludes that passerines of the two continents are much less related than nonpasserines, and considerable discussion is devoted to possible origins of the various avifaunal elements.—D. W. J.
- WILLIAMS, G. R. 1957. Some preliminary data on the population dynamics of the Takahe (*Notornis mantelli*, Owen). *Notornis*, **7**: 165-171.—The breeding season extends from early October to the end of March. Breeding may occur during the first season after hatching; at least some birds breed annually. Clutch-size 1 or 2 eggs. At least 66 per cent fertility recorded in 35 eggs; 29 per cent of eggs laid gave rise to chicks which left the nest. Comparisons are drawn with published data on other Rallidae. Evidence bearing on the replacement rate and population regulation is discussed. It is thought that the species must be long-lived.—F. M.
- WILLIAMSON, F. S. L. 1957. Ecological distribution of birds in the Napaskiak Area of the Kuskokwim River Delta, Alaska. *Condor*, **59**: 317-338.—This is a very significant analysis of avian distribution in a little-known area. The author thoughtfully categorizes ten ecological formations on the basis of life form of the vegetation, and indicates the species which show preferences for each formation. There follows an annotated list of some 62 species in which there are scattered details, as available, on weights, gonad size, nests, ages, and habitat choices.—D. W. J.

GENERAL BIOLOGY

- BURTON, D. E. 1958. Nesting of the Cedar Waxwing in southern Ontario. *Ont. Field Biologist*, **12**: 19-22.—Observations on 41 nests of *Bombycilla cedrorum* show that July and August are the peak nesting months. 33 nests were in hawthorns, and averaged 7 feet from the ground. Early nests are occasionally parasitized by the Cowbird.—F. M.
- CHRISTENSEN, H. O. 1958. [Observations on the breeding biology of the Red Crossbill (*Loxia curvirostra* L.)]. *Dansk. Ornith. For. Tids.*, **51** (4): 168-175. (In Danish: English summary.)
- KLIMSTRA, W. D., and W. O. STIEGLITZ. 1957. Notes on reproductive activities of robins in Iowa and Illinois. *Wilson Bull.*, **69**: 333-337.—Nest location and construction by *Turdus migratorius*, clutch size, incubation, and success.—J. T. T.
- LACK, D. 1958. The significance of the color of turdine eggs. *Ibis*, **100**: 145-166.—Employing information from published works, scientific collections, and personal observations, the author summarizes in table and discussion form information on nest-sites and color of eggs of members of the subfamily Turdinae for which such data are available. It is concluded that egg color as a taxonomic guide is generally unreliable, and that there is a general correlation between type of nest-site and egg color (white eggs in cavities, drab eggs on the ground in

- herbage or on ledges, speckled eggs or immaculate blue eggs in shallow holes or niches, forks of trees or bushes, or in domed nests). It is concluded further that white eggs in cavities are an adaptation for increased visibility to parents rather than to absence of predators, and that eggs of small passerines are not warningly colored.—J. W. H.
- MAYHEW, W. W. 1958. The biology of the Cliff Swallow in California. *Condor*, **60**: 7-37.—This is a major contribution to the biology of this species, conducted over an eight-year period, and involving 18,004 banded swallows in California. Significant data are presented for habitat requirements, arrival of birds, pair formation, vagrancy and homing, nest construction, egg-laying, incubation, brooding, and return of banded birds. One is impressed by the extensive work involved in amassing these data, especially techniques of trapping and banding.—D. W. J.
- MYRES, M. T. 1957. Clutch size and laying dates in Cliff Swallow colonies. *Condor*, **59**: 311-316.
- MYRES, M. T., I. McT. COWAN, and M. D. F. UDVARDY. 1957. The British Columbia nest records scheme. *Condor*, **59**: 308-310.—A cooperative scheme for amassing nest data is outlined, with the principal objective being a central repository for standardized complete nesting data.—D. W. J.
- SAGE, B. L. 1957. Remarks on the taxonomy, history and distribution of the House Sparrow into Australia. *Emu*, **57** (5): 349-352.—Five specimens with wing measuring 71-73 mm.; said to be considerably smaller than European average. *Passer domesticus*, introduced less than a century ago, now breeds in Australia September-December, though derived from European birds breeding in the northern hemisphere spring.—E. E.
- SELANDER, R. K., and J. K. BAKER. 1957. The Cave Swallow in Texas. *Condor*, **59**: 345-363.—This paper summarizes extant data on *Petrochelidon fulva* in Texas, with information on breeding colonies in limestone caves, distribution in the state, annual cycle, nest construction, taxonomy, and vocalizations. It is of considerable interest to note how the authors combine field and laboratory techniques in order to evaluate these life history data.—D. W. J.
- SHARLAND, M. 1957. Egrets at Ulmarra, N. S. W. *Emu*, **57** (5): 296-302.—Colonies of *Egretta alba*, *Bubulcus ibis*, and other species nesting in New South Wales, Australia.
- SKUTCH, A. F. 1958. Life history of the Violet-headed Hummingbird. *Wilson Bull.*, **70**: 5-19, with a color plate by D. R. Eckelberry.—*Klais guimeti*, of Central and northern South America, is briefly described, as are its habitats, the singing assemblies of males, nest, and nesting behavior.—J. T. T.
- SKUTCH, A. F. 1958. Life history of the White-whiskered Soft-wing, *Malacoptila panamensis*. *Ibis*, **100**: 209-231.—Based on observations of six nests of this puff-bird, family *Bucconidae*, the author presents life-history information under the following headings: Appearance and General Habits; Voice; The Nest; The Eggs; Incubation; The Nestlings. The nestlings are habitually silent and after nocturnal brooding ceases, nightly raise up leaves from the floor to form a screen in front of themselves. This paper is an important addition to Skutch's already large list of contributions on tropical American birds.—J. W. H.
- TAYLOR, R. R. 1958. Observations on a Black-backed Three-toed Woodpecker's nest. *Ont. Field Biologist*, **12**: 7-9.—Includes a description of the nest and the plumage of the nestlings.—F. M.
- THOMAS, H. F. 1957. The Starling in Sunraysia District of Victoria. *Emu*, **57** (5): 325-337.—*Sturnus vulgaris*, introduced into Australia from Europe, now has its

- breeding peak in September, October, November. Clutch is usually four or five; broods are sometimes two. No birds with really swollen gonads were found before August.
- VERHEYEN, R. 1957. Contribution à la biologie du Coucou Cuivré, *Chrysococcyx caprius* (Bodd.). *Gerfaut*, 47: 259-264. Observations of the parasitic Didric Cuckoo in the Belgian Congo. A marked male was apparently mated to two females. There is evidence of territorialism. (In French.)—E. E.
- VESEY-FITZGERALD, D. F. 1958. Notes on breeding colonies of the Red-billed Quelea in S. W. Tanganyika. *Ibis*, 100: 167-174.—The nesting and food habits of a flock of the Red-billed Quelea (*Q. quelea*) in the Rukwa Valley are discussed. One colony, established after heavy rains in the area, was estimated to consist of two and one-half million pairs occupying an area of grassland of 93 acres, a density of five nests per square yard. Incubation was principally at night. The average clutch size was three eggs. Incubation apparently is by the female alone. Nesting was very successful; no predators were recorded. Diurnal activity was marked by early morning flights to feeding grounds by flocks. Numerous birds remained in the colony at these times, defending their individual nest-sites. Many birds in the colony were juveniles indicating an earlier nesting that year. Five male plumage phases were evident among the members of the colony. Rukwa birds seem to belong to the race *centralis*. Food consisted primarily of grass seeds and insects.—J. W. H.

MANAGEMENT AND CONSERVATION

- BAILEY, R. W. 1956. Sex determination of adult wild turkeys by means of dropping configuration. *Journ. Wildl. Mgt.*, 20: 220.—The author concludes that the sex of adult wild turkeys, *Meleagris gallopavo silvestris* Vieillot, can be determined by the size and shape of their respective droppings. Droppings of adult gobblers are straighter, longer, and greater in diameter (about 10-15 mm.) than are those of hens. Droppings of hens are characterized by their smaller diameter (5-8 mm.) and their short looped, spiral, or bulbous shape.—R. F. L.
- MCINTYRE, J. D. 1957. Predation on Leach's Petrel on eastern Canadian bird islands. *Ont. Field Biologist*, 11: 4-6.—Unless the number of foxes is reduced, the future of the Leach's Petrel colony on Bonaventure Island may well be imperilled.—F. M.
- ROSENE, W., JR., and F. W. FITCH, JR. 1956. A comparative test of the investigator as a variable in aging quail. *Journ. Wildl. Mgt.*, 20: 205-207.—To test the reliability of current aging techniques (wing molt criteria) for bobwhite quail, five biologists made age determinations from 200 quail wings selected randomly from many wings collected in Alabama during the 1952-53 hunting season. The results of this test showed that a difference of 3.5 per cent (classification varied from 26.0-29.5 per cent for adults and 70.5-74.0 per cent for juveniles) occurred between investigators in their classification of age groups. Authors emphasize the need for investigators to be fully familiar with the aging techniques and their existing weaknesses.—R. F. L.
- SNYDER, L. L. 1958. Collecting birds and conservation. *Ont. Field Biologist*, 12: 16-18.
- HOWLS, L. K., and L. A. GREENWALT. 1956. Large traps for catching quail. *Journ. Wildl. Mgt.*, 20: 215-216.—Describes the increase in trapping efficiency obtained by using large traps (mainly 3 x 3 x 6 feet), rather than the standard quail traps (1 x 3 x 3 feet), for capturing Gambel's Quail, *Lophortyx gambeli* and

- Scaled Quail, *Callipepla squamata*. The average catch from 125 small traps and 355 large traps was 4.7 and 9.0 birds per set, respectively.—R. F. L.
- THIESSEN, G. J., E. A. G. SHAW, R. D. HARRIS, J. B. GOLLOP, and H. R. WEBSTER. 1957. Acoustic irritation threshold of Peking Ducks and other domestic and wild fowl. Journ. Acoustical Soc. of Amer., **29**: 1301-1306.—Experiments with a siren established that Peking ducks respond to sounds of an intensity greater than about 70 db by frequent head shaking, tail twitching and opening of the mouth. Hungry ducks were discouraged from taking food in a low-frequency sound field at 100 db intensity. Experiments carried out in September 1952 on wild Mallards in Saskatchewan were successful in greatly reducing the number of ducks using three sloughs. Siren blasts of 2-4 mins. for a total of about 20 mins. on two successive days cleared an area for the following 48 hours. Tests on Alberta Pintails were less successful and the birds returned to the area within a day, while further tests in Saskatchewan in 1953 were unsuccessful. It is concluded that "with the equipment at present available the protection of crops from mallard and pintail ducks by the use of high-intensity sound is not an economical proposition."—F. M.
- VERHEYEN, R. 1958. [On the average age of the Blackbird (*Turdus merula* L.)] *Gerfaut*, **48**(1): 5-14. Belgian banded individuals when recovered averaged 336 days (11 months) old. Contrary to Lack's English data, Verheyen found no indication that Belgian young birds were more vulnerable than adults. According to his data at the beginning of the nesting season the population consists 34% of older birds and 66% of first year birds. Of the latter 33% survive to the next breeding season, and of the survivors 34% attain the following season. One bird carried a band for over 7 years. (In Flemish; French summary.)—E. E.
- WESTFALL, C. Z., and R. B. WEEDEN. 1956. Plastic neck markers for woodcock. Journ. Wildl. Mgt., **20**: 218-219.—Describes the use of a plastic "neck-bow" for marking woodcock. The 3 x 3/4-inch tag is constructed from 20-gauge upholstery plastic, and is attached to the bird's neck with a surgical clip. Markers should be depended upon *only* for short-term studies.—R. F. L.

MIGRATION AND ORIENTATION

- BELLROSE, F. C. 1958. The orientation of displaced waterfowl in migration. *Wilson Bull.*, **70**: 20-40.—Juvenal Blue-winged Teal (*Anas discors*), held captive in Illinois until after the autumn migration period, were found to migrate in the direction normal for the species. This is thought to be an example of Griffin's type II orientation; the birds were "able to fly in a certain direction even when crossing unfamiliar territory." Mallards (*Anas platyrhynchos*) displaced from Illinois to Utah remained near the release point for the rest of the season, but in subsequent seasons two-thirds of the adults returned to the Mississippi Flyway while two-thirds of the juveniles remained in the Pacific Flyway. Young female Wood Duck (*Aix sponsa*) homed to the area they inhabited just before the fall migration, but transplanted ducklings did not return to their natal home.—F. M.
- BURTON, D. E. 1957. The fall migration of Blue Jays at Toronto, Ontario. *Ont. Field Biologist*, **11**: 7-10.—The Blue Jay has increased in southern Ontario during the past 25 years. A marked movement to the west was observed through the city of Toronto, with peak flights between September 20th and 25th from 1952 to 1955. On September 23, 1954, 2,733 were counted between 7:30 and 10:30 a.m. Flights start early in the morning and are usually over by noon. When the wind is strong the birds fly lower.—F. M.

- JOHNSTON, D. W. 1957. Bird mortality in Georgia, 1957. *Oriole*, **22**: 33-39.
- KENYON, K. W., and D. W. RICE. 1958. Homing of Laysan Albatrosses. *Condor*, **60**: 3-6.—Fourteen out of eighteen adult albatrosses removed from nests at Midway Atoll returned to their nests from widely-spaced points of release. The greatest distance covered was 4120 miles in 32 days, whereas another bird returned 3200 miles in about 10 days, thus averaging 317 miles per day.—D. W. J.
- LINGOLA, P. 1958. [Recoveries of birds ringed at Signilskär indicating the speed of migration.] *Orn. Fen.*, **35** (2-3): 125-126, 127. A list of 12 species (37 individuals) recovered within two months of banding in Finland, with dates and average distance travelled per day. Included are *Falco columbarius*, *Accipiter gentilis*, *A. nisus*, and *Loxia curvirostra*. (In Finnish; English summary.)
- MACDONALD, J. D., and B. P. HALL. 1957. Ornithological results of the Bernard Carp/Transvaal Museum Expedition to the Kaokoveld, 1951. *Annals Transvaal Museum*, **23**: 1-39.—A report on a collection totalling 778 specimens of 140 species made in a little known area of South West Africa. A number of birds still rare in collections and poorly understood are included and the notes on them contribute to their elucidation. The collection was sent to the British Museum to be studied in connection with the material gathered by the British Museum South West Africa Expedition of 1949-50, as the field work of the present expedition was planned to supplement rather than to duplicate that of the other one.—H. F.
- MACKAY, R. H. 1957. Movements of the Trumpeter Swans shown by band returns and observations. *Condor*, **59**: 339.—Birds banded in the Peace River District of Alberta spent the winter on the Red Rock Lakes Refuge in Montana.—D. W. J.
- PHILLIPS, W. W. A. 1958. Terns (*Chlidonias leucopterus* and *Sterna macrura*) and other birds in mid-Atlantic in late April. *Ibis*, **100**: 276-277.
- STEVENS, O. A. 1957. Fall migration and weather, with special reference to Harris' Sparrow. *Wilson Bull.*, **69**: 352-359.—Banding records of 7000 *Zonotrichia querula* showed that southward flights were not well correlated with weather, but seemed to come near certain dates.—J. T. T.
- STONEHOUSE, B. 1958. Notes on the ringing and breeding distribution of the Giant Petrel, *Macronectes giganteus*. *Ibis*, **100**: 204-208.—Recoveries from about 800 banded chicks in Chile, South Africa, Australia, and New Zealand, suggest that young birds in their first and second years of life disperse northward and eastward on leaving their nesting grounds in the South Orkney Islands. The eastward movement may be due to effects of a zone of westerly winds. Rate of travel, distance covered and range of wanderings is discussed. The existence of a colony below the Antarctic Circle is reported.—J. W. H.
- VLEUGEL, V. A. and W. VON WESTERNHAGEN. 1958. Formen des Zugen in abweichender Richtung unter den Einfluss geographischen Faktoren. *Dansk. Ornith. For. Tids.*, **51** (4): 176-190.—Deflected migration under the influence of geographical factors. A general review of directional lines and reverse migration. (In German; Danish summary.)

PHYSIOLOGY

- FISHER, H. I., and L. M. BARTLETT. 1957. Diurnal cycles in liver weights in birds. *Condor*, **59**: 364-372.—Decreases in liver weights overnight are attributed primarily to decrease in fat content, which subsequently rises during the day, along with glycogen content, to a maximum in early evening. It is suggested that "as

- spring comes on, a smaller amount of stored food from the liver is necessary to supply the metabolic needs of the roosting bird."—D. W. J.
- PITELKA, F. A. 1958. Timing of molt in Steller Jays of the Queen Charlotte Islands, British Columbia. *Condor*, **60**: 38-49.—Among other conclusions reached in this study is the fact that the timing of molt is as closely linked with abundance of summer food as is the period of breeding.—D. W. J.
- TOMLINSON, J. T., and R. S. MCKINNON. 1957. Pigeon wing-beats synchronized with breathing. *Condor*, **59**: 401.

TAXONOMY AND PALAEOONTOLOGY

- BAUER, K. 1957. Zur systematischen Stellung des Blutspechtes. Johann Friedrich Naumann—Ehrung: 22-25. Deutscher Kulturbund, Berlin. The Syrian Woodpecker (*Dendrocopos syriacus*) in spreading into central Europe has hybridized with the Great Spotted Woodpecker (*D. major*). The view is expressed that *D. syriacus* is a good species, for hybridization occurs only in the early stage of the invasion when numbers are so few that difficulty exists in finding conspecific mates. The vocalizations of *syriacus* are said to resemble those of *D. medius* more than *D. major*.—E. E.
- COTTIER, W. B., JR. 1957. A serological analysis of some Anatid classifications. *Wilson Bull.*, **69**: 291-300.—The methods used in testing antigen reactions are described in detail. The Muscovy Duck (*Cairina*) is closely related to the Wood and Mandarin Ducks (*Aix*), distantly related to *Anas*, and still more distantly to *Anser*.—J. T. T.
- DAWSON, E. W. 1958. Re-discoveries of the New Zealand subfossil birds named by H. O. Forbes. *Ibis*, **100**: 232-237.—H. O. Forbes described between 1890 and 1893 a number of new species of subfossil birds from the New Zealand Quaternary. The material upon which these descriptions were based, long thought lost, has been re-discovered in the British Museum. Examination of this material suggests that a number of taxonomic and nomenclatural changes are in order.—J. W. H.
- LEHMANN, F. C. 1957. Contribuciones al Estudio de la Fauna de Colombia XII. Novedades Colombianas, Contr. Cient. Mus. Hist. Nat. Univ. del Cauca, Popayan, Colombia, no. **3**: 101-156. (In Spanish.)—*Cathartes burrovianus dugandi* and *Tangara schrankii anchicayae* described as new.
- MOREAU, R. E. 1958. Some aspects of the Musophagidae. *Ibis*, **100**: 67-119; 238-270.—A revised classification of the turacos is presented. Eighteen species in five genera are recognized. *Gymnoschizorhis* is sunk in *Corythaixoides* and *Ruwenzorornis*, *Proturacus* and *Gallirex* in *Tauraco*. *Tauraco corythaix* provisionally is considered polytypic including *persa* and *fischeri*. The author closely describes the geographic and ecologic ranges of each species, including a cogent discussion of the factors involved in the complexities of these distributional patterns. Subspecific variation is described. The third part of the paper is arranged under the following headings: Melanins; Gloss; Turacin and Turacoverdin; Size and proportions; Beaks and nostrils; Head ornamentation; Voice; Habitat and overlap; Points of Musophagid geography; Some problems of musophagid variation. Turacoverdin, like turacin, is mainly a copper complex. Turacin is soluble only in alkali and is therefore not likely to be washed out of the plumage under natural conditions. It is shown that copper as a trace element in soils and foods is sufficiently prevalent to account for the copper in these birds' plumages. Interesting "musings" by the author under the headings from "Size and proportions"

- through "Some problems in musophagid variation" provide food for thought, but he simultaneously and logically arrives at few conclusions — evidence of the primitive state of our knowledge of the biology of Touracos.—J. W. H.
- VERHEYEN, R. 1957. Analyse du potentiel morphologique et projet de classification des Columbiformes (Wetmore 1934). Bull. Inst. R. Sci. Nat. Belgique, **33**, no. 3:1-42. A proposed classification of the pigeons, based on comparison of a long list of characters (anatomical, physiological, ethological, as well as those of external morphology). The author opposes current lumping tendencies and recognizes 8 subfamilies and 13 tribes of Columbidae; he breaks up the genus *Columba* by reviving the genera recognized by Ridgway for the American species. The sandgrouse, Pteroclididae, he removes from the Columbiformes and places in a new order Turniciformes (including also Turnicidae and Thinocorythidae).—E. E.
- VERHEYEN, R. 1957. Contribution au démembrement de l'ordo artificiel des Gruiformes (Peters 1934). I Les Ralliformes. II Les Cariamiformes. III Les Jacaniformes. Bull. Inst. R. Sci. Nat. Belgique, **33**, nos. 21: 44, 39: 1-7, 48: 1-19. In these three papers the order Gruiformes is divided into three new orders: Ralliformes, including Otidae, Psophiidae, Gruidae, Aramididae, Rallidae, and Heliorinthidae; Cariamiformes, including Cariamididae and *Sagittarius* (removed from Falconiformes), given subordinal rank; and Jacaniformes, including Jacanidae (removed from Charadriiformes), Eurypygididae, and Rhynochetidae, each with subordinal rank.—E. E.
- VERHEYEN, R. 1958. Analyse due potentiel morphologique et projet d'une nouvelle classification des Charadriiformes. Bull. Inst. R. Sci. Nat. Belgique, **34**, no. 18: 1-35. A new classification of the Charadriiformes. The gulls, alcids and jacanas are removed; the suborder Charadrii is divided into four families, Haematopidae (including the Recurvirostrinae as well as the oystercatchers), Charadriidae, Phalaropidae, Scolopacidae (restricted to snipes and woodcocks), Tringidae (including *Limnodromus*, the Arenariinae, and the waders placed by Peters in Tringinae and Erolinae). The sheathbills, *Chionis*, are given subordinal rank.—E. E.

MISCELLANEOUS

- KUMERLOEVE, H. 1957. Der Vogelmord in Italien. Kosmos, **53**, (5): 221-226, photos. (In German).—Netting of thousands of small birds for sale as food in the markets.
- PRESTWICH, A. A. "I name this parrot . . ." 1958. 86 pp. Price 5/6. A. A. Prestwich, 61 Chase Road, Oakwood, London, N. 14. A list of parrots bearing dedication names, giving brief biographical accounts of the persons after whom they were named.
- SCHORGER, A. W. 1957. The contributions of Josselyn Van Tyne to the Wilson Ornithological Society. Wilson Bull., **69**: 314-316.
- WADE, D. E. 1957. Tape-recording the American Woodcock. Chat, **21**: 73-78.

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The short reviews in the Recent Literature section of 'The Auk,' vol. 75, were contributed by the following persons (their identity being indicated in most instances by initials): G. A. Bartholomew, A. J. Berger, S. T. Dillon, E. Eisenmann, R. F. Johnston, S. C. Kendeigh, R. F. Labisky, W. E. Lanyon, G. H. Lowery, Jr., F. McKinney, M. T. Myres, K. C. Parkes, F. R. Scott, H. C. Seibert, R. W. Storer, J. T. Tanner, H. B. Tordoff, M. A. Traylor, J. D. Webster, A. Wetmore, R. Zusi.