

RECENT LITERATURE
EDITED BY FRANK MCKINNEY

ANATOMY AND EMBRYOLOGY

- AUBER, L. 1957. The structures producing "non-iridescent" blue colour in bird feathers. Proc. Zool. Soc. London **129**: 455-486. The morphology and evolution in feathers of structural (particularly Tyndall) colors. Possible application to taxonomy of certain avian groups is discussed, including: Alcedinidae, Coliidae, Coerebinae, and Thraupinae.—W. E. L.

BEHAVIOR

- BERGMAN, G. 1957. Analyse der "aggressiven Beugungen" und des "Herabstarren" der "Herrabstarrens" der Raubseeschwalbe, *Hydroprogne tschegrava*. Ornith. Fennica, **34** (4): 113-117. Certain aspects of the behavior of the Caspian Tern compared with other larids. (In German.)—E. E.
- BERGMAN, S. 1957. On the display and breeding of the King Bird of Paradise, *Cicinnurus regius rex* (Scop.) in captivity. Avic. Mag., **63**: 115-124. (reprinted from Nova Guinea. New Ser., 7)—A good account of sexual and parental behavior. 13 excellent photographs of sexual and parental behavior.—W. C. D.
- CONWAY, W. G. 1957. When a bird preens itself—it isn't vanity! Animal Kingdom **60**: 182-186.—A popular and informative discussion of various comfort activities based on a vast experience with zoo birds.—W. E. L.
- DANCKER, P. 1956. Über das Verhalten eines Goldammerpaares (*Emberiza citrinella*) gegenüber Rotrückenvürgern (*Lanius collurio*). Journ. für Ornith. **97**: 430-437.—Nesting Yellow-hammers were tested with a variety of models patterned after the Red-backed Shrike.—H. C. M.
- HESS, E. H. 1957. Effects of meprobamate on imprinting in waterfowl. Annals N. Y. Acad. Sci., **67**: 724-733.—Imprinting is an extremely rapid form of learning. The critical period in which Mallard ducklings learn to follow a moving object is between 12 and 17 hours after hatching. The strength of imprinting is directly related to the amount of energy expended in following i.e. the distance which the duckling is allowed to follow. Treatment with the tranquilizing drug meprobamate gave the following results: imprinting during the critical age is almost impossible when birds are under the influence of the drug; ducklings imprinted normally at the critical age will follow when tested under the drug; ducklings given the drug at 24 hours cannot be imprinted at 26 hours, although they do not show the fear and avoidance behavior typical at that age; ducklings given the drug at 12 hours can be imprinted fairly successfully at 24 to 26 hours when the effect of the drug has worn off. The results agree with the metabolism-lowering and muscle-relaxant effects of the drug.—F. M.
- KORTLANDT, A. 1955. Aspects and prospects of the concept of instinct (vicissitudes of the hierarchy theory). Arch. Neerl. Zool., **11**: 155-284.—This lengthy paper critically discusses the history of various attempts to construct a hierarchical framework within which animal behavior may be organized. The paper is divided into four major parts plus a substantial summary and bibliography. The four main parts are headed: I. The idea of hierarchy in psychoanalytical and child psychology, II. The idea of hierarchy in "hormic" and "dynamic" animal psychology, III. The idea of hierarchy in ethological animal psychology, and IV. Prospects for future research on hierarchy. This paper must be taken into consideration by all who may be interested in the hierarchical organization of behavior.—W. C. D.

- LAHRMAN, F. W. 1957. A quick-witted Yellowlegs. *Blue Jay*, 15: 146.—When approached by a Prairie Falcon (*Falco mexicanus*) a Lesser Yellowlegs (*Totanus flavipes*) dove beneath the water.—R. W. N.
- LEHRMAN, D. S. 1955. On the organization of maternal behavior and the problem of instinct. *In* L'instinct dans le comportement des animaux et de l'homme. Masson et Cie, Paris: 475-520.—The following topics are discussed: the environment and hormone secretion; learning, the autonomic nervous system, and hormone secretion; the role of learning in the organization of maternal behavior; the mode of action of hormones on behavior; a hypothetical account of maternal behavior in two animals; and maternal behavior and maternal "instinct". This paper is a "must" for all those finding themselves dealing with problems involving maternal behavior in birds and other animals.—W. C. D.
- LORENZ, K. 1955. The objectivistic theory of instinct. *In* L'instinct dans le comportement des animaux et de l'homme. Masson et Cie, Paris: 51-76.—Lorenz reviews the present thinking of ethologists in regard to animal behavior. He discusses the limited modifiability, independence of individual learning and spontaneity of "instinctive" behavior.—W. C. D.
- MORRIS, D. 1955. The function and causation of courtship ceremonies. *In* L'instinct dans le comportement des animaux et de l'homme. Masson et Cie, Paris: 261-286.—Courtship is defined as "the heterosexual reproductive communication system leading up to the consummatory sexual act". The following topics as they relate to courtship are discussed: function, causation, pair formation, and ritualization. Emphasis is given to the interactions of the drives typically present in such behavior. This is an excellent treatment of this important subject.—W. C. D.
- TASHIAN, R. E. 1957. Nesting behavior of the Crested Oropendola (*Psarocolius decumanus*) in northern Trinidad, B.W.I. *Zoologica*, 42: 87-98.—The various nesting phases and aspects of breeding biology are considered. Perch displays and vocalizations of the males are compared with those of other oropendolas.—W. E. L.
- TINBERGEN, N. 1956. The activation, extinction and interaction of instinctive urges. *Roy. Instit. Gr. Brit.*, weekly evening meeting, Friday 24th Feb., 1956: 1-8.—The author points out that behavior of intact animals may be grouped in categories according to function such as feeding, mating, etc. The frequencies of such activities with roughly the same function fluctuate together indicating that they share common causal factors. A discussion follows concerning some general considerations of both internal and external causal factors. This is done within the frame outlined in the title.—W. C. D.

DISEASES AND PARASITES

- ANDERSON, R. C. 1956. The life cycle and seasonal transmission of *Ornithofilaria fallisensis* Anderson, a parasite of domestic and wild ducks. *Canad. Journ. Zool.*, 34: 485-525.
- CHEATUM, E. L., J. R. REILLY, and S. C. FORDHAM, JR. 1957. Botulism in game farm pheasants. *Trans. 22nd N. Amer. Wildl. Conf.*: 169-179.—A disease outbreak at the Delmar Game Farm near Albany, New York in July 1955 killed approximately 39% of 16,421 pheasants from the first breeding cycle. Diagnostic experiments pointed to botulism, most probably Type C. Most promising control methods involve strict sanitation patrols with experienced personnel to eliminate conditions favorable to the development of botulinus toxin and fly larvae. The described outbreak apparently extended to some wild pheasants and other birds.—S. T. D.

- CLAPHAM, P. A. 1957. *Sarcocystis* sp. in the red-legged partridge, *Alectoris rufa*, and the pheasant, *Phasianus colchicus*. *Nature*, **180**: 1294.

DISTRIBUTION AND ANNOTATED LISTS

- ALLEN, R. A. 1958. Flamingo news from around the world. *Audubon Mag.*, **60**: 10-13, 38-40.—The unknown nesting area of *Phoenicoparrus jamesi* was discovered at Laguna Colorada in southwestern Bolivia at 14,800 ft. by a party led by A. W. Johnson. Also breeding in the same locality were two other flamingo species, *Phoenicopterus chilensis* and *Phoenicoparrus andinus*. Included is a map showing flamingo sites and breeding areas in northern Chile and adjacent Bolivia. Information is given of the 1957 breeding situation of flamingo species elsewhere.—E. E.
- BERLIOZ, J. 1956. Étude d'une collection d'oiseaux du Dahomey. *Muséum Natl. d'Hist. Nat.*, **28** (3): 265-272. Birds collected in Dahomey.
- BUSS, I. O., and H. M. MATTISON. 1955. A half century of change in bird populations of the lower Chippewa River, Wisconsin. *Milwaukee Public Mus.*, Publ. in Orn., no. 1: 1-319. \$5.00.—Essentially an annotated check-list of the birds of Dunn County and the adjacent areas in western Wisconsin, with comparison of records kept by J. N. Clark in the late nineteenth century. There is useful data on breeding, and numerical information on game birds, as well as measurements and weights of many birds, not found in the usual regional list.—E. E.
- DE SCHAUENSEE, R. M. 1957. Notes on Philippine Birds. *Notul. Nat.*, no. **303**: 1-12.—Report on certain collections in the Academy of Natural Sciences of Philadelphia; the ibis *Threskiornis aethiopica melanocephala* recorded for the first time from the Philippines.—E. E.
- DORST, J. 1956. Étude d'une collection d'oiseaux rapportée du Pérou centrale. *Bull. Muséum Natl. d'Hist. Nat.*, **28** (3): 265-272. Birds collected in the department of Pasco, central Peru.
- DORST, J. 1956. Étude d'une collection d'oiseaux rapportée des hauts plateaux andins du Pérou méridionale. *Bull. Muséum Natl. d'Hist. Nat.*, **28** (5): 453-445. Birds collected in the high Andean plateau of southern Peru in the department of Puno.
- DORST, J. 1957. Étude d'une collection d'oiseaux des hauts plateaux andins du Pérou méridionale. *Bull. Muséum Natl. d'Hist. Nat.* **29** (2): 127-129. Additional birds from the department of Puno, Peru.
- DORST, J. 1957. Étude d'une collection d'oiseaux rapportée du basin Haut Maraïon, Pérou septentrionale. *Bull. Muséum Natl. d'Hist. Nat.* **29** (5): 377-384. Birds collected in the Upper Maraïon basin of northwestern Peru.
- FRASER, J. K. 1957. Birds observed in the central Canadian Arctic, 1953, 1955, 1956. *Canad. Field-Nat.*, **71**: 192-199.
- HOUSTON, S. 1957. The Great Gray Owl in Saskatchewan. *Blue Jay*, **15**: 150-153.—A summary of all known records of the Great Gray Owl (*Strix nebulosa*) in the province.—R. W. N.
- JOUANIN, C. 1956. Une capture méconnue de *Puffinus puffinus Newelli* Henshaw. *Bull. Muséum Natl. d'Hist. Nat.*, **28** (3): 273-274. An unknown specimen in the Paris Museum of this Hawaiian bird, taken at Saipan in the Marianas in May, 1887.
- KOEPCKE, DRA. MARÍA. 1952. El Gorrion europeo en el Perú. *Mar del Sur* (Lima, Perú), **8**, No. 22, July-Aug., 63-72, 3 figs., 1 map. (In Spanish).—The House Sparrow (*Passer d. domesticus*) was found in Tacna, Ilo, and the Tambo Valley, southwestern Perú, in 1951. There is a probable record of one in the same year at Mollendo.

- OEMING, A. F. 1957. Notes on the Barred Owl and the Snowy Owl in Alberta. Blue Jay, **15**: 153-156.—Additional distribution records and some weights.—R. W. N.
- SMITH, W. J. 1957. Birds of the Clay Belt of Northern Ontario and Quebec. Canad. Field-Nat., **71**: 163-181.
- TANNER, J. T., and J. W. HARDY. 1958. Summer birds of the Chiricahua Mountains, Arizona. Amer. Mus. Novitates, **1866**: 11 pp.—Annotated list based on authors' observations during June and July, 1956. New locality records for Goshawk, Clark's Nutcracker, Townsend's Solitaire, Gray Vireo, and Lazuli Bunting.—K. C. P.

ÉCOLOGY AND POPULATION

- DORST, J. 1957. Contribution a l'étude écologique des oiseaux du haut Marañon (Pérou septentrionale). L'Oiseau, **27** (3): 235-269. An ecological study of bird distribution in the upper Marañon valley of north-western Peru.
- ENEMAR, A. 1957. Grashoppsångare (*Locustella naevia*) och kornknarr (*Crex crex*) i Sverige ar 1957. Vår Fågelvärld, **16**(4) 269-287. Report on a 1957 cooperative study in Sweden of the status of the Grasshopper Warbler and the Corn Crake, the former relatively new to the country and increasing, the latter drastically decreasing. 1957 was an unusually good year for both (Swedish, with English summary).
- ODUM, E. P., and G. L. HIGHT. 1957. The use of mist nets in population studies of winter fringillids on the AEC Savannah River Area. Bird Banding, **28**: 203-213.—The technique and value of mist netting as a method of sampling wintering fringillid populations is discussed. In open fields dawn drives were most effective. Netting provides a more random sample than trapping. On the study areas Savannah Sparrows were the most abundant species and showed less specific habitat preferences than other sparrow species. The five wintering races of the Savannah Sparrow showed no habitat segregation. The applicability of the "Lincoln Index" method of population size estimation is discussed. An adjusted return figure indicates that about 40% of the individuals return each season. The authors suggest that this may represent the survival of the populations.—W. J. H.
- ROBINSON, T. S. 1957. The ecology of Bobwhites in south-central Kansas. State Biol. Surv. and Mus. Nat. Hist., Univ. Kansas Misc. Publ. **no. 15**: 1-84.—Some unusual aspects of the study are discussion of the intensity of light as a limiting factor and cloacal temperatures as compared with environmental temperatures. Robinson concludes that Bobwhites are true homoiotherms, with body temperature independent of age, sex, or season.—E. E.

ÉVOLUTION AND GENETICS

- LANDAUER, W. 1957. Primary sex ratio of fowl. Nature, **180**: 1139-1140.—White Leghorn and Black Minorca showed no significant deviation from equality.—H. C. S.
- MORGAN, W., and W. KOHLMAYER. 1957. Hens with bilateral oviducts. Nature, **180**: 98.—Evidence indicates that persistency of the right oviduct may be controlled genetically in chickens.—H. C. S.
- VAN BRINK, J. M., and G. A. UBBELS. 1956. La question des hétérochromosomes chez les Sauropsidés. Oiseaux. Experientia, **12**: 162-164.—The authors discuss obstacles inherent in counting chromosomes of the domestic fowl. The digamety of the fowl might be of the Z-O or of the Z-W type.—P. H. B.

GENERAL BIOLOGY

- FRIEDMANN, H. 1957. Aviculture and our knowledge of the parasitic weaver-birds. *Avic. Mag.*, **63**: 158-160.—A plea to aviculturists for information on parasitic weavers. Aside from a list of species involved there is a list of questions which is an indication of what needs to be known about these birds.—W. C. D.
- HAMILTON, M. 1957. Weights of wild Bobwhites in central Missouri. *Bird Banding*, **28**: 222-228.—Juvenile quail attain adult weight at about 100 days of age. Both old adults and first year adults reach maximum weights in January. The old adults are heavier than first year adults at that time. Bobwhite tend to lose weight in February and March. The males remain light through the breeding season but females recover after March. Comparison shows that heavier birds are found in the northern United States as predicted by Bergmann's Law.—W. J. H.
- KOSKIMIES, J. 1957. Polymorphic variability in clutch size and laying date of the Velvet Scoter, *Melanitta fusca* (L.). *Ornis Fennica*, **34** (4) 118-128.—Study of marked Velvet Scoters over ten years indicates that individual females have their own basic clutch size and that the earliest nesters have the largest clutches; such correlation results in roughly simultaneous hatching of all clutches regardless of size, and ensures rearing at the most favorable period.—E. E.
- REGNALL, S. 1957. En liten fågelsjö i Östergötland med häckande svarthalsad dopping (*Podiceps nigricollis*). *Vår Fågelvärld*, **16** (4): 299-303.—Comparative behavior of Eared and Horned Grebes in feeding young. (Swedish, with English summary.)
- SILVOLA, T. 1957. Kalalokki, *Larus canus* L., rakentanut pesänsä rämemäntyyn. *Ornis Fennica*, **34** (4): 139.—Grass nest of Mew Gull built in a pine-tree at height of about 2 meters in Finland. (Finnish, with English summary.)
- WACKERNAGEL, H. 1957. Notes on captive-bred ostriches at the Basel Zoological Garden. *Avic. Mag.*, **63**: 113-115.—A brief account of the development of young ostriches; touching on activity periods, feeding behavior, etc.—W. C. D.

MANAGEMENT AND CONSERVATION

- CRISSEY, W. F. 1957. Forecasting waterfowl harvest by flyways. *Trans. 22nd N. Amer. Wildl. Conf.*: 256-268.—Reviews in broad terms the evolution of field techniques and data analysis behind the formulation of our annual waterfowl regulations. Spring and summer surveys, designed to detect 20% population changes, provide the basis for a predicted fall flight for each flyway which shows from fair to good agreement with the actual flight as estimated by January inventory and kill statistics.—S. T. D.
- GRIFFITH, R. E. 1957. Management of waterfowl habitat on the National wildlife refuges. *Trans. 22nd N. Amer. Wildl. Conf.*: 215-220.—Basic legislation commits refuge management to "... protection, production, and utilization, with particular emphasis on protection essential to perpetuating the waterfowl resource on a continental scale." Established techniques include the planting of supplemental feeds, intensive predator control, water level manipulation, chemical control of undesirable plants, regulated grazing, and the erection of nesting islands.—S. T. D.
- HAMERSTROM, F. N., JR., O. E. MATTSON, and F. HAMERSTROM. 1957. A guide to Prairie Chicken management. *Wisc. Cons. Dept. Tech. Wildl. Bull.* no. **15**: 1-128.—This report contains a great amount of valuable ecological information, and a most interesting historical review of the status of the Greater Prairie Chicken

- in the prairie states and Canadian provinces from the 1800's. Clearing for agriculture at first improved and extended the habitats of this species; but more intensive agricultural development, with the reduction of grassland, has been steadily reducing the population.—E. E.
- HANSEN, H. A., and U. C. NELSON. 1957. Brant of the Bering Sea—migration and mortality. *Trans. 22nd N. Amer. Wildl. Conf.*: 237–256.—Nesting and banding studies of Black Brant in Alaska and along the Pacific coast from 1949 through 1954 are reviewed. A migration route from the Yukon Delta to the Alaska Peninsula to the Pacific coast is described with 85% of the population wintering in California and Mexico. An average annual population decline of 6.7% since 1949 is reported with excessive hunting as the probable cause. Management needs are discussed.—S. T. D.
- HUNGERFORD, K. E. 1957. Evaluating ruffed grouse foods for habitat improvement. *Trans. 22nd N. Amer. Wildl. Conf.*: 380–395.—The most important foods of ruffed grouse broods on the Idaho Experimental Forest, Latah County, Idaho were determined by dropping analysis. This information was combined with food availability as shown by sample plots to produce a "food index" value or availability-utilization rating. These findings were applied to experimental management through plant seeding on feeding areas and in the construction of exclosures.—S. T. D.
- HUNT, R. A., L. R. JAHN, R. C. HOPKINS, and G. H. AMELONG. 1958. An evaluation of artificial Mallard propagation in Wisconsin. *Wisc. Cons. Dept. Tech. Wildl. Bull. no. 16*: 1–79.—During 1949–1953, 10,371 hand-reared banded Mallards were released at a cost of \$2.04 per 30-day-old duckling. About 27% were recovered, mostly within 20 miles, almost all killed the first year by hunters—a much greater vulnerability than wild-bred birds. The report contains a variety of interesting data, including the finding that fertile eggs may be stored for up to seven days without decrease in ultimate hatchability, but that if held for a longer period before incubation a great drop in hatchability occurs.—E. E.
- MACNAMARA, L. G. 1957. Potentials of small waterfowl areas. *Trans. 22nd N. Amer. Wildl. Conf.*: 92–96.—The pros and cons of small marsh development are discussed. Some advantages are: favorable production, usefulness as refuges and in distributing waterfowl populations, increased local harvest, and opportunities for ecological research. Disadvantages arise in high costs of development, patrol and management per unit area, and in problems of State aid to private development.—S. T. D.
- NEWSOM, J. D., D. M. RUSSELL, F. A. WINSTON, L. E. FOOTE, and H. S. PETERS. 1957. A summary of Mourning Dove investigations—1948–1956. *Trans. 22nd N. Amer. Wildl. Conf.*: 360–379.—Summarizes the work of the cooperative dove study from 1948 to 1956, the major objectives of which have been "... to investigate dove movements, breeding, population densities and distribution and hunting effects and to recommend proper management." Data are presented under the following headings: census and population, production, mortality, migration and movements, and operational and research needs for dove management.—S. T. D.
- ROBINSON, T. S. 1957. Number of Bobwhites in Kansas. *Kansas Sportsman*, 4: 13.—Based on wings of birds shot by sportsmen, the total population is estimated at over six million, of which about 80% die each year, as a result of disease, old age, predation, and hunting.—E. E.
- SCOTT, P., and H. BOYD. (Editors) 1957. *The Eighth Annual Report of The Wildfowl Trust*. Country Life, London. Price 10 shillings.—The activities of

- the Trust in the period May 1954 to August 1956 are described. As well as the usual reports on goose and duck banding, wildfowl counts in the British Isles, and the waterfowl collection at Slimbridge, there are interesting contributions on duck traps, summer recoveries of Wigeon, Pintail, Shoveler, and Tufted Duck banded in Britain, recoveries of British-banded Grey Lag Geese, mass banding of flightless Blue and Lesser Snow Geese in Canada's eastern arctic, the White-fronted Geese of England and Wales, the Russian home of British-wintering ducks, and the use of hand-reared ducks for supplementing wild populations.—F. M.
- STANLOCK, J. L., and J. A. POWELL. 1957. An ecological study of waterfowl areas in central Florida. *Trans. 22nd N. Amer. Wildl. Conf.*: 220-236.—A five-point transect system was used in determining the distribution and relative abundance of shore-line vegetation at five lakes in central Florida. These data, tabulated and analyzed using the IBM mark sense system, were related to duration of inundation and made possible predictions of plant changes upon proposed manipulation of lake levels.—S. T. D.
- STANFORD, J. A. 1957. A progress report of *Coturnix* Quail investigations in Missouri. *Trans. 22nd N. Amer. Wildl. Conf.*: 316-359.—Summarizes Missouri worker's "... thinking, information, and important findings to date, the future objectives of the work, and some questions on the ecology..." of the *Coturnix* Quail (*Coturnix c. japonica*) in the United States. Data and discussions are presented under the following headings: reasons for exotic game investigations, previous stocking in the United States, selection of coturnix, taxonomy, qualifications of exotics, source of stock, description, hatching studies, cross breeding studies, nutrition, hardiness and disease, sexing of coturnix, growth, sex recognition of young birds, wing development, aging, Bursa of Fabricius, voice, bird calling and inventory, field behavior, habitat, food habits, nesting and production in the field, sporting qualities, release experiments and migrations, summer movements, abundance and present status and future plans. In addition appendices provide detailed information on classification, description, hatchery care and production techniques, molts and plumages, and aging.—S. T. D.
- WAGNER, F. H. 1957. Late-summer mortality in the pheasant hen. *Trans. 22nd N. Amer. Wildl. Conf.*: 301-315.—Circumstantial evidence for postnesting mortality in hen pheasants is to be found in sex and age ratio data and in field observation of henless broods. A physiological linkage to breeding and molting stresses is suggested as a cause. Management implications are discussed.—S. T. D.

MIGRATION AND ORIENTATION

- DANIELSON, B. 1957. Verksamheten vid Ottenby fagelstation 1956. *Vår Fågelsvärld*, 16 (4): 241-269. The activities of the Ottenby (Sweden) bird station for 1956, giving data on visible migration, birds banded and recoveries made. (Swedish, with English summary and captions to tables and figures.)

PHYSIOLOGY

- BIGGS, P. M., and A. S. KING. 1957. A new experimental approach to the problem of the air pathway within the avian lung. *Journ. Physiol.* 138: 282-289.—A quantitative comparison is made between tracheal breathing and breathing through one of the air sacs. The authors conclude that the circulation of air within the lung itself is relatively complex rather than a simple oscillation as suggested by other workers.—W. E. L.

- BROWN, W. O., and N. JACKSON. 1957. Biochemical changes associated with folic acid deficiency and oestrogen treatment in the oviduct of the immature chick. *Nature*, **179**: 1193-1194.
- ELIASSEN, E. 1957. Right ventricle pressures and heart-rate in diving birds. *Nature*, **180**: 512-513.—Under simulated diving conditions, a decrease in heart rate of more than 50% was noted; systolic and diastolic pressures were little affected. The birds studied were the shag, razorbill, guillemot, black guillemot, puffin, and eider.—H. C. S.
- FERRARI, W. 1957. Insensitivity of chicken cholinesterase to specific inhibitors of true- and pseudo-enzyme. *Nature*, **180**: 144-145.
- HAZELWOOD, R. L., and F. W. LORENZ. 1957. Responses of the domestic fowl to hyper- and hypoglycemic agents. *Endocrin.*, **61**: 520-527.
- MARSHALL, A. J., and C. J. F. COOMBS. 1957. The interaction of environmental, internal and behavioural factors in the Rook, *Corvus f. frugilegus* Linnaeus. *Proc. Zool. Soc. Lond.*, **128**: 545-589.—“Seasonal changes in the behaviour, sexual cycle, moult and external environment of the Rook were studied in relation to each other over a period of twelve years in the climatically mild Truro area of South-west England where the species is sedentary and undergoes a prolonged autumnal sexual season.” This important paper draws many conclusions which cannot be briefly summarized. It will be of equal interest to students of behavior, physiology, and ecology, though most attention is given to the gonad cycle.—F. M.
- MARSHALL, A. J., and H. J. DE S. DISNEY. 1957. Experimental induction of the breeding season in a xerophilous bird. *Nature*, **180**: 647-649.—In a set of experimental cages it was found that *Quelea quelea* has an innate urge to build nests within 3 months of leaving the nest and before the nuptial plumage is assumed, provided food is easily available. Successful nest building cannot take place until green grass with stems long enough to be used by the males for weaving are available. An internal rhythm of reproduction exists which is modifiable by external conditions and if these are favorable, reproduction is possible at 9 months of age. Experimental rainfall was found to depress the number of ovulations.—H. C. S.
- MIRSKY, I. A., and S. GITELSON. 1957. Comparison of the hypoglycemic action of tolbutamide in the fowl and other species. *Endocrin.*, **61**: 148-152.—The hypoglycemic action of tolbutamide is independent of the presence of the pancreas and/or the discharge of insulin into the circulation.—H. C. S.
- OLOMUCKI, E. 1957. Action of ethylene dibromide on hen gonadotrophic hormones. *Nature*, **180**: 1358-1359.
- ROSENBERG, E. E. 1957. Teratogenic effects of beta-amino-propionitrile in the chick embryo. *Nature*. **180**: 706-707.
- SCHWARTZ, H. G., and G. LITWACK. 1957. A photometric method for avian liver xanthin dehydrogenase. *Nature*, **180**: 761-763.
- TANABE, Y., K. HIMENO, and H. NUZAKI. 1957. Thyroid and ovarian function in relation to molting in the hen. *Endocrin.*, **61**: 661-666.—Acceleration in release rate of I^{131} from the thyroid was not observed either in molting or pre-molting period. Molt occurred whenever laying ceased and ovarian activity decreased. It is suggested that natural autumnal molt in the hen is induced by decrease in ovarian activity, not by increased activity of the thyroid gland.—H. C. S.
- WEISS, P., and A. G. MATOLTSY. 1957. Absence of wound healing in young chicken embryos. *Nature*, **180**: 854.—Wounds made up to 10 days of incubation failed to heal; after 12 days, healing was complete. Between 10 and 12 days, healing was incipient but not completed.—H. C. S.

TAXONOMY

- BERLA, H. F. 1957. Sobre o genero *Merulaxis* Lesson, 1830 (Aves, Rhinocriptidae). Bol. Museu Nacional, Rio de Janeiro, n.s. Zoologia, no. 167: 1-7. *Myiothera rhynolopha* Wied, hitherto known only from a female taken in southern Bahia and generally synonymized with Lesson's *Merulaxis ater* of southeastern Brazil, proves to be a valid form, here treated as a subspecies (*sub nom. rinolopha*) on the basis of another female from southern Bahia (Ilhéus), here described. This female is said to differ strikingly in general color and size (wing 75, tail 95, tarsus 30) from *ater* (wing 61-66, tail 65-77, tarsus 26-27).—E. E.
- DAWSON, E. W. 1957. The generic name of the extinct New Zealand gallinule. Nature, 179: 1307-1308.—Reasons why the spelling *Pyramida* should be used.—H. C. S.
- DE SCHAUENSEE, R. M. 1957. On some avian types, principally Gould's, in the collection of the Academy. Proc. Acad. Nat. Sci. Phila., 109: 123-246.—The Academy is reported to own 1130 bird types; the authors included are listed. There is a full discussion of the question whether the bird collection purchased from Gould included the types of those described in "Birds of Australia". Each Gould specimen deemed to be an actual type is separately considered, as are also types of other authors in the Academy collection, not treated in earlier papers by Witmer Stone.—E. E.
- DIXON, K. L. 1955. An ecological analysis of the interbreeding of crested titmice in Texas. Univ. Cal. Publ. Zool., 54, no. 3: 125-206.—A careful study (comparing song, habitat preferences, and other aspects of behavior) of the relations between the Tufted and Black-crested Titmice (*Parus bicolor* and *P. atricristatus*). The birds respectively occupy humid and arid areas, but in a narrow zone in Texas they appear to hybridize freely, though the visible effects of introgression fade out a few miles from the zone of contact. Dixon concludes that, as the birds have not attained reproductive isolation, they should be treated as conspecific.—E. E.
- DORST, J. 1957. Description d'une espèce nouvelle de tyran du genre *Serpophaga* du Pérou septentrionale. Bull. Museum Natl. d'Hist. Nat., 28 (3): 207-209. New species, *Serpophaga Berliozii*, on single adult male specimen taken in the upper Marañon basin of northwestern Peru, dept. of Amazonas, at 460 m. *Serpophaga* is an emendation of *Serpophaga*; the new form is said to be allied to *S. subcristata*, and possibly to *S. inornata*.—E. E.
- RAND, A. L., and D. S. RABOR. 1957. New birds from the Philippines. Fieldiana, Zool., 42, no. 2: 13-18.—Twelve new subspecies of Philippine birds: *Ptilocichla mindanensis fortichi*, *Stachyris nigrocapitata boholensis*, *Ficedula hyperythra malindangensis*, *Rhinomyias fuficauda boholensis*, *Rhinomyias ruficauda zamboanga*, *Pachycephala philippinensis siguijorensis*, *Sitta frontalis zamboanga*, *Rhabdonis inornatus zamboanga*, *Dicaeum anthonyi masawan*, *Aethopyga boltoni malindangensis*, *Arachnothera clarae malindangensis*, *Hypocryptadius cinnamomeus malindangensis*.—M. A. T.
- VAURIE, C. 1957. Systematic notes on Palearctic birds. No. 27. Paridae: the genera *Parus* and *Sylviparus*. With supplementary notes by David Snow. Amer. Mus. Novitates, 1852: 43 pp.—Notes on 11 species of *Parus* plus *Sylviparus modestus*. Detailed discussions of taxonomy of *P. palustris*, *montanus* (no longer considered conspecific with *atricapillus*), *ater*, *varius*, and *major*. Specific rank is accorded *P. bokharensis*, usually considered conspecific with *P. major*. *P. major* and *P. minor*, frequently cited as a classic example of an "overlapping ring" species, are apparently *not* reproductively isolated along the Amur valley, as has

- been widely believed. Snow's supplementary notes cover chiefly the differing opinions of the two authors on the validity of certain subspecies.—K. C. P.
- VAURIE, C. 1957. Systematic notes on Palearctic [*sic*] birds. No. 28. The families Remizidae and Aegithalidae. Amer. Mus. Novitates, 1853: 21 pp.—The evidence for removing the penduline titmice and the long-tailed titmice from the family Paridae is summarized, and the families Remizidae (including the Verdin) and Aegithalidae (including the Bushtit) set up. The Remizidae may be related to the Dicaeidae. Taxonomic discussions, incorporating some recent Russian literature, are presented for six species of the two families.—K. C. P.
- VAURIE, C. 1957. Systematic notes on Palearctic birds. No. 29. The subfamilies Tichodromadinae and Sittinae. Amer. Mus. Novitates, 1854: 26 pp.—Family relationships among nuthatches, creepers, titmice, and allied groups are discussed. The family Certhiidae is maintained for *Certhia* only. The family Paridae is broadened to include subfamilies Parinae, Sittinae, Tichodromadinae (including *Rhabdornis* and *Climacteris*), and (tentatively) Aegithalinae (but see above). A scrap-basket family "Salpornidae" (properly Salpornithidae) is set up to include *Salpornis*, *Neositta*, *Daphoenositta*, and *Hypositta* "in several subfamilies." Most of the paper is devoted to *Sitta europaea*; the 40 races recognized by Voous and Van Marle (1953. *Ardea*, 41, suppl., pp. 1-68) are reduced to 26. Other species discussed in detail are *Tichodroma muraria*, *Sitta himalayensis*, *S. krüperi*, *S. yunnanensis*, and *S. canadensis*, with which Vaurie places the Corsican *whiteheadi* and Chinese *villosa*. American workers have never accepted this "lumping", and Vaurie adds a supplemental footnote saying that Löhrl and Stresemann in Germany now believe *canadensis*, *whiteheadi* and *villosa* to be separate species.—K. C. P.
- VAURIE, C. 1957. Systematic notes on Palearctic birds. No. 30. The Certhiidae. Amer. Mus. Novitates, 1855: 14 pp.—13 Old World races of *Certhia familiaris*, 5 (weakly differentiated) races of *C. brachydactyla*, and 4 of *C. himalayana* are recognized. As with other papers in this important series, numerous previously proposed races are synonymized.—K. C. P.
- VAURIE, C. 1957. Systematic notes on Palearctic birds. No. 31. Sylviinae: the genus *Leptopoeile*. Amer. Mus. Novitates, 1856: 7 pp.—*Lophobasileus* Pleske is considered inseparable from *Leptopoeile* Severtzov. The races of *L. sophiae* show an interesting distribution pattern "which seems unique among Palearctic passerines, a ring of dark populations encircling one of pale populations." No subspecies of *L. elegans* are recognized.—K. C. P.

MISCELLANEOUS

- BONHAM, L. L., and L. V. BLAKE. 1956. Radar echoes from birds and insects. *Scientific Monthly*, 82: 204-209.—The authors state that radar can pick up returns from birds that are as far away as 20 to 25 miles. Comment is made on the characteristics of radar as they affect picking up bird echoes.—J. C. H.
- MURPHY, R. C. 1957. The sketches of Titian Ramsay Peale (1799-1885). *Proc. Amer. Phil. Soc.*, 101 (6): 523-531. Titian Peale, son of Charles Willson Peale, was the naturalist of a family of artists. His drawings and paintings, chiefly field sketches, now owned by the American Philosophical Society, include many on birds.—E. E.
- RONSIÉ, R. 1957. L'art français dans le livre d'oiseaux. *L'Oiseau*, Suppl. to vol. 27. *Mem. Soc. Orn. de France*, no. 6: 1-136.—A history of French ornithological illustration, with many reproductions, including one in color.—E. E.

STRESEMAN, E. 1956. Jean Cabanis' amerikanisches Abenteuer (1839-1840). *Journ. für Ornith.* 97: 415-429.—An account of Cabanis' two year stay in the United States.—H. C. M.

WILLIAMSON, K. 1957. Mist-nets versus Heligoland traps. *Bird Banding*, 28: 213-222.—On small treeless Fair Isle, north of Scotland, permanent wire-netting traps are maintained by the Observatory to sample migrant and resident bird populations. These traps are briefly discussed and illustrated. Mist nets have proven less satisfactory than these permanent traps in studies of ectoparasites, especially Hippoboscids. Mist nets also tend to restrict the netters' activities due to the constant attention they require. Further, netting is apt to hamper moult studies. The windy climate and open terrain of Fair Isle also makes mist netting operations less effective than permanent traps. Still, in some situations mist nets are effective and supplement the regular trapping program.—W. J. H.

The Bird Watcher's Reference Book.—Michael Lister. 1956. 256 pp., 35 photos., 23 text figs. and maps. Phoenix House Ltd., London. 45 shillings.—This book is designed as a source of reference on some of the "background" subjects impinging on serious bird-watching. Its emphasis is on the ecology of the British Isles, but it includes much of interest to students elsewhere. The ecological sections describe methods of recording habitat and climatic features, the chief types of British vegetation (illustrated by drawings of dominant plants), and major habitats, (supported by a fine series of photographs), with an appendix on habitat classification by W. B. Yapp. There is a chapter on writing an ornithological paper, which also gives the standard printer's marks for correcting proof.

One of the most useful features is the listing, by countries, of the main ornithological serials (as well as other scientific journals likely to carry ornithological articles), with their abbreviations and the meaning of the foreign words used in their names; of the "ring marks" used in bird-banding; and of the names and addresses of the major ornithological (or natural history) organizations. The listing of only three organizations for the United States is likely to mislead those unfamiliar with American ornithology, for important organizations of international scope, such as the Cooper and Wilson Ornithological Societies are not mentioned—though their publications are listed among the American serials. Curiously, while the *Audubon Magazine* is listed, the ornithologically more significant *Audubon Field Notes* is overlooked. A surprisingly interesting chapter is the glossary, which includes many terms, increasingly used in ornithological literature, drawn from ecology, biometrics and ethology, generally with their German, French and Dutch equivalents.—E. EISENMANN.

Derniers Refuges. Atlas commenté des Réserves Naturelles dans le monde. L'Union Internationale pour la Conservation de la Nature et de ses Ressources. 1956. 214 pp., numerous photographs, text figs., and maps. Elsevier, Paris. An exceedingly handsome and well-illustrated book listing the major wild-life refuges and natural parks throughout the world, with maps showing their location and descriptive accounts of the more important. Various authors contribute introductory chapters on the role of such reserves from the viewpoint of science, conservation, tourism, aesthetics, and economics. (In French.)