

RECENT LITERATURE

EDITED BY FRANK MCKINNEY

ANATOMY AND EMBRYOLOGY

- BERGER, A. J. 1960. Some anatomical characters of the Cuculidae and the Musophagidae. *Wilson Bull.*, **72**: 60-104.—The musculature of *Tauraco leucotis donaldsoni*, a musophagid, is described. Pterylography, skeleton, and musculature are compared within the Cuculidae and between the two families. Implications of anatomy for the classification of cuckoos are discussed. The Musophagidae deserve ordinal rank.—J. T. T.
- HUDSON, G. E., P. J. LANZILLOTTI, and G. D. EDWARDS. 1959. Muscles of the pelvic limbs in Galliform birds. *Amer. Midl. Nat.*, **61**: 1-87.
- SIGMUND, L. 1959. Mechanik und anatomische Grundlagen der Fortbewegung bei Wasserralle (*Rallus aquaticus* L.), Teichhuhn (*Gallinula chloropus* L.) und Blasshuhn (*Fulica atra* L.). *Jour. für Ornith.*, **100**: 3-24.—The mechanical and anatomical bases for locomotion (walking and swimming) in a rail, gallinule, and coot. In addition to anatomical data, a series of pleasing diagrams of the progression of these birds, based on motion pictures, characterizes the varying appearance in movement of the three genera, and will interest ethologists, bird artists, and field students, as well as anatomists and physiologists.—E. E.

BEHAVIOR

- BETTS, M. M. 1958. The behaviour of adult tits toward other birds and mammals near the nest. *Brit. Birds*, **51**: 426-429.
- CROOK, J. H. 1960. Nest form and construction in certain west African Weaverbirds. *Ibis*, **102**: 1-25.—The basic construction of a weaver-bird nest is described, beginning with the initial ring and proceeding to shaping and stitching. Several types of these nests are described, including globular, kidney shaped, incomplete kidney shaped, and retort shaped. Detailed description of nest construction is given for *Quelea quelea* and compared with that of other species. Methods of attachment, size of bird, and construction from a fixed point inside the ring are factors determining nest form. Length of funnel is correlated with time spent building and duration of breeding season. In evolution of nest forms there is a correlation between long breeding seasons, insect diet, nesting in trees, and tubular entrances. Short breeding seasons and globular or kidney-shaped nests are also correlated. Individual and local variation in nest form indicates direct adaptation to special circumstances and nest sites available. Breeding behavior is discussed. Construction of a properly built nest requires constant repetition of building sequences and sustained building. Low motivation results in irregular positions and shapes.—J. W. H.
- HAILMAN, J. P. 1960. Direct and indirect scratching by a fledged Mockingbird *Mimus polyglottos*. *Ibis*, **102**: 129-131.—Besides a description of both types of scratching in Mockingbirds, there is a list of scratching methods observed in 13 nonpasserines and 26 passerines. It is suggested that age of bird and circumstances of the observation should be noted in future recording of birds seen scratching.—J. W. H.
- HICKLING, R. A. O. 1959. The burrow-excavation phase in the breeding cycle of the Sand Martin *Riparia riparia*. *Ibis*, **101**: 497-500.—Sand Martins arrive at

- the breeding place unpaired and in a stage of low social organization. Group display with mounting excitement and mutual stimulation is climaxed by communal digging of burrows (approximately one burrow per individual), then building and laying. The display period sexually synchronizes the entire colony, seemingly a necessity for the continued communal behavior of its members.—J. W. H.
- HOFFMANN, K. 1959. Über den Tagesrhythmus der Singvögel im arktischen Sommer. *Jour. für Ornith.*, **100**: 84–89.—In Arctic Sweden (68° 21.5 N.) during June, song and flight activity of songbirds began to drop after 7:00 P.M., reached a minimum between 10:00–11:00 P.M., and began to rise again after midnight.—E. E.
- KILHAM, L. 1959. Early reproductive behavior of Flickers. *Wilson Bull.*, **71**: 323–336.—The activities of *Colaptes auratus* from midwinter to egg laying are described, based on observations of wild and captive birds.—J. T. T.
- LEHTONEN, L. 1958. [On the movements of tit flocks in the coniferous and mixed forests of southern Finland.] *Ornis Fennica*, **35**: 76–93.—The organization and movements of wandering bird flocks of which one or more species of tits generally form the nucleus. (In Finnish; German summary and table captions.)—E. E.
- NICOLAI, J. 1959. Familientradition in der Gesangsentwicklung des Gimpels (*Pyrrhula pyrrhula* L.). *Jour für Ornith.*, **100**: 39–46.—The Bullfinch learns its song chiefly from hearing its father. A young Bullfinch reared by canaries learned a canary song; four years later the descendants of this bird still sang unchanged the canary phrases.—E. E.
- RATTASUO, K. 1958. Beobachtungen über brutzeitliches Verhalten beim Teich- und beim Schilfrohrsänger. *Ornis Fennica*, **35**: 94–108.—Observations on the behavior of Reed and Sedge Warblers (*Acrocephalus scirpaceus* and *A. schoenobaenus*) in protecting nestlings from the weather, the heat reactions of the adults, and nest sanitation, including experiments to test the size, shape, and color of objects that would release the sanitation activity. (In German; Finnish summary.)—E. E.
- RASPER, A. 1960. Biophysics of bird flight. *Science*, **132**: 191–200.—A rather technical paper for most ornithologists. Covers soaring (rather than flapping) flight almost exclusively; the physical mechanism of bird propulsion by flapping is surprisingly poorly understood. It is concluded that experiments with anything other than living birds (models, mounted birds, frozen birds) are of dubious value; productive past experiments (wind tunnel, following in sail planes) are described and additional experiments proposed. Many gaps in our knowledge (*i.e.*, how do birds locate thermal upcurrents at a distance?) are pinpointed. A valuable review.—K. C. P.
- RICHARDS, T. J. 1958. Concealment and recovery of food by birds, with some relevant observations on squirrels. *Brit. Birds*, **51**: 497–508.
- ROLLIN, N. 1958. Late season singing of the Yellowhammer. *Brit. Birds*, **51**: 290–303.
- ROTHSCHILD, M. and C. LANE. 1960. Warning and alarm signals by birds seizing aposematic insects. *Ibis*, **102**: 328–330.—Many aposematic insects are not only unpalatable but possess chemical substances causing pain or distress in the predator. Learning in birds confronted with such insects is described and discussed.—J. W. H.

- SIMMONS, K. E. L. 1957. A review of the anting-behaviour of passerine birds. *Brit. Birds*, **50**: 401-424.—Two forms of anting are distinguished: active (the bird applies crushed ants to the underside of the wing and tail with its bill) and passive (the bird allows ants to crawl on to its plumage). The distribution of these behavior patterns in passerine birds is summarized. Active anting has probably evolved from preening movements and may function as an aid in preening.—F. M.
- SMYTHIES, B. E. 1960. Subspecific variation in birds' songs and call-notes. *Ibis*, **102**: 134-135.—Twenty species common to Borneo and Burma but represented in each place by different subspecies are compared as to song and call notes by an author familiar with both forms in each case. In each subspecies pair, vocalizations are similar, in some cases identical. When only similar, that of the Bornean forms are often thinner or less resonant, correlating with smaller size of most Bornean forms.—J. W. H.
- THIELCKE, G. 1959. Über Schlafgewohnheiten des Gartenbaumläufers (*Certhia brachydactyla*) und des Waldbaumläufers (*Certhia familiaris*). *Jour. für Ornith.*, **100**: 25-38.—On the sleeping habits of tree creepers, with excellent photographs.—E. E.
- WILLIS, E. 1960. Red-crowned Ant-Tanagers [*Habia rubica*], Tawny-crowned Greenlets [*Hylophilus ochraceiceps*], and forest flocks. *Wilson Bull.*, **72**: 105-106.—The behavior of several flocking species in British Honduras is described.—J. T. T.

DISEASES AND PARASITES

- ASH, J. S. 1960. A study of the Mallophaga of birds with particular reference to their ecology. *Ibis*, **102**: 93-110.—An important summary of facts on the biology of these parasites, with data on their temperature and food requirements, effects on birds, parasite-host relationship, changes in infestation, distribution on host, and valuable suggestions for collection, examination, and sampling of Mallophaga. Infestation of bird species in Great Britain and Sweden is discussed.—J. W. H.
- BANKOWSKI, R. A., R. E. CORSTVET, and G. T. CLARK. 1960. Isolation of an unidentified agent from the respiratory tract of chickens. *Science*, **132**: 292-293.—An undescribed filterable virus causing hemagglutination of red blood cells was isolated from tracheae of young chickens simultaneously afflicted with infectious laryngotracheitis. The latter disease masked the effects of the unknown virus, which causes, by itself, a mild and transient illness. The new agent appears to be a member of the myxovirus group.—K. C. P.
- COOMBS, C. J. F. 1960. Ectoparasites and nest fauna of rooks and jackdaws in Cornwall. *Ibis*, **102**: 326-328.
- MEYER, K. F. and B. EDDIE. 1960. Feather mites and ornithosis. *Science*, **132**: 300.—Ornithosis virus has been isolated from several species of poultry ectoparasites, suggesting for the first time that this too may be a vector-borne infection. [Authors' summary.]

DISTRIBUTION AND ANNOTATED LISTS

- BOYD, J. M. 1958. The birds of Tiree and Coll. *Brit. Birds*, **51**: 41-56, 103-118.—Detailed records for two islands of the Inner Hebrides.

- BUXTON, E. J. M. 1960. Winter notes from Madeira. *Ibis*, **102**: 127-129.—An annotated list comprises the first published observations on wintering birds from this island in about 50 years.—J. W. H.
- HINDWOOD, K. A. and A. R. MCGILL. 1958. The birds of Sydney (County of Cumberland) New South Wales. 128 pp., map, 19 photo. pls. Royal Zool. Soc. of N.S.W., 28 Martin Place, Sydney, Australia. Price, 12/6.—While essentially a check-list (giving local status and habitat) of the 377 native and 15 introduced species recorded in the vicinity of Australia's most populous city, this booklet also provides a succinct statement (usually under four lines) of the identifying characters of each species. Photographs of habitats and of a number of birds add to the usefulness of the work. Though subspecies are not mentioned, systematists will be interested in a list of birds erroneously recorded, for many of which Sydney is stated in the literature to be the type locality.—E. E.
- JAMES, D. and J. R. PRESTON. 1959. An inventory in 1957 of the distribution of the Wild Turkey (*Meleagris gallopavo silvestris* Vieillot) in the Ozark Plateau region of Arkansas. *Proc. Ark. Acad. Sci.*, **13**: 83-90.
- JOHANSEN, H. 1959. Die Vogelfauna Westsibiriens. III. Teil (Non-Passeres). 6. Fortsetzung: Anseres I (*Cygnus-Casarca*). *Jour. für Ornith.*, **100**: 60-76.—Continuing the annotated catalogue of West Siberian birds (swans, geese, and shelducks). Data on distribution, ecology, and breeding biology.—E. E.
- JÓZSEFIK, M. 1960. Modifications of the south-west border of the range of *Erythrina e. erythrina* (Pall.) during the last two hundred years. *Acta Ornithologica*, **5**: 307-324.—Two expansion waves are documented from the south-west boundary of this species, the first from the 1790's to the 1880's, following a regression, the second, from the 1930's to date. The factors that might have caused these range fluctuations are briefly discussed. (In Polish; with Russian and English summary.)—M. D. F. U.
- KEVE, A. 1960. *Nomenclator Avium Hungariae*. Hungarian Ornithological Institute, Budapest. 89 pp.—This publication replaces the 1938 check-list of the birds of Hungary. The bilingual text also gives the whereabouts of the documentary specimens of each species. There is a hypothetical list. The list of species that occurred up to 1938 in the Carpathian Basin but outside the present boundaries of Hungary is included, but not brought up to date. (In Hungarian and German.)—M. D. F. U.
- KOEFKE, M. 1958. Die Vögel des Waldes von Zárate (Westhang der Anden in Mittelperu). *Bonn. Zool. Beitr.*, **9**: 130-193.—Annotated list of birds found in temperate woodland on the west slope of the Andes (alt. 2500-3500 m.) near Lima, Peru. In this hitherto undescribed biotope the author discovered a new genus and species of cotingid, *Zaratornis stresemanni*, of which the female occurs there in some numbers for two months prior to the breeding season, but of which the male is still unknown. The paper contains much data on ecology, vocalizations, and behavior.—E. E.
- KUMERLOEVE, H. 1960. [On the distribution of the Squacco Heron, *Ardeola ralloides* (Scop.) in S.W. Asia.] *Acta Ornithologica*, **5**: 301-306.—Summary based on personal observations and comprehensive literature search. (In German; with Polish and Russian summary.)—M. D. F. U.
- KURODA, N. 1960. Analysis of sea bird distribution in the northwest Pacific Ocean. *Pacific Science*, **14**: 55-67.—Sea bird census made during a research cruise from Japan to the western Bering Sea, June-July 1954. Data presented include population density, correlation of the latter with food supply, and corre-

- lation of distribution of individual species with sea zones defined in the paper.
—K. C. P.
- LÖHRL, H. 1959. Beitrag zur Avifauna Korsikas. Jour. für Ornith., **100**: 79–83.
—Notes on Corsican birds.
- MICZYNSKI, K. 1960. [Ornithological notes from the East Carpathians /Gorgany; Czornahora/.] Acta Ornithologica, **5**: 333–345.—(In Polish; with Russian and German summary.)
- NICHOLSON, E. M., I. J. FERGUSON-LÆES, and P. A. D. HOLLOW. 1957. The Camargue and the Coto Donana. Brit. Birds, **50**: 497–519.—A comparison, in the light of recent studies, of the avifauna of these two famous regions in southern France and south-west Spain.—F. M.
- PYMAN, G. A. 1959. The status of the Red-crested Pochard in the British Isles. Brit. Birds, **52**: 42–56.
- RASANEN, T. 1959. [On Razorbill and Pigeon Guillemot colonies in the Simo archipelago.] Ornis Fennica, **36**: 94–97.—(In Finnish; with German summary.)
- STÄEBLER, A. E. 1959. Subspecies of the Canada Goose in Michigan. Wilson Bull., **71**: 344–347.—Four subspecies of *Branta canadensis* were tentatively identified from migrant geese in Kalamazoo County, Michigan.—J. T. T.
- STEGMANN, B. 1958. Die Herkunft der eurasiatischen Steppenvögel. Bonn. Zool. Beitr., **9**: 208–230.—The derivation (geographical) of the avifauna of the Eurasian steppes.—E. E.
- SZARSKI, K. 1955. The birds of Wrocław in 1946–1952. Acta Ornithologica, **5**: 1–49.—Avifaunistic notes; ruins created new nesting habitat, first for rock dwellers, later, when crumbled down, for birds of barren and semi-open areas. (In Polish; with Russian and English summary.)—M. D. F. U.
- TOMKINS, I. R. 1958. The birdlife of the Savannah River Delta. Gaviiformes through Charadriiformes. Georgia Ornith. Soc., Occ. Publ., no. **4**: 1–68. 4 figs. incl. map. Price, \$1.50.—This river forms the boundary between South Carolina and Georgia. The annotated list of species is introduced by useful sections on the ecology of the area, which consists mainly of marshes. Of general interest are the data on the favored habitats of the shorebirds and breeding forms.—E. E.
- WILEY, R. H., JR. 1959. Birds observed during two Atlantic crossings. Wilson Bull., **71**: 364–371.—Twelve species of oceanic birds observed between New York and France or England.—J. T. T.
- WILLIAMS, G. R. 1960. The birds of the Pitcairn Islands, central south Pacific Ocean. Ibis, **102**: 58–70.—A species list based on observations made in late 1956 is presented. Twenty-eight forms are listed and the numbers found on each island in the group given. The avifauna is oceanic and migrant, the land birds having Polynesian affinities (most closely to the Austral Islands and Tuamotu group), and so far as known no native species have become extinct. *Gallus gallus* and *Phasianus colchicus* were introduced on Pitcairn; the former is now feral, the latter extinct.—J. W. H.

ECOLOGY AND POPULATION

- COULSON, J. C. and E. WHITE. 1960. The effect of age and density of breeding birds on the time of breeding of the Kittiwake *Rissa tridactyla*. Ibis, **102**: 71–86.—Differences in time of breeding in a colony of Kittiwakes were recorded over an eight-year period. Females breeding for the first time began about 10 days later than females breeding for at least the fourth time. Older colonies

- have fewer birds breeding for the first time than younger colonies. But these factors do not account for differences in times of breeding of the colonies; the latter is directly related to density of birds. Maximum nest density is usually related to rock structure, but in one colony density is probably determined by minimum distance that neighbors can tolerate each other. Density also is directly correlated with earliness of return to the colony in spring. Correlation is made between onset and progress of breeding phases with maximum density, range in density, and presence of low-density areas. Social stimulation is different from that envisaged by Darling; effective distance was five feet and tended to produce a longer breeding season.—J. W. H.
- CREUTZ, G. 1958. Wo fehlt der Haussperling als Brutvogel. *Falke*, **5**: 98–101, 116–119.—German localities where the House Sparrow (*Passer domesticus*) is absent as a breeder, and the probable reasons.—E. E.
- CZARNECKI, Z. 1956. Ecological observations of birds in the Golecin Wood near Poznań in 1952. *Acta Ornithologica*, **5**: 113–158.—Ecological study of a 26.9 ha. suburban wood (pine plantations, deciduous woodland with pond) with phenological data and breeding census (average density 1,304 pairs/sq. km.). Nests were mapped and habitat subdivisions analyzed; 57 per cent of nests were destroyed by people and feral and wild predators. Breeding densities seemed to depend on suitable nest sites rather than on proximity of ample food. (In Polish; with Russian and English summary.)—M. D. F. U.
- DRINNAN, R. E. 1958. Observations on the feeding of the Oystercatcher in captivity. *Brit. Birds*, **51**: 139–149.—Captives ate 230–260 cc. mollusc flesh per day. Estimated food intake of wild birds was higher. Feeding rate in the dark was about half that in light. Wild birds estimated to be eating an amount of dry food equal to 17.5 per cent of their own live body weight per day.—F. M.
- FRITH, H. J. 1959. The ecology of wild ducks in inland New South Wales. I Waterfowl habitats; II Movements; III Food habits; IV Breeding. C.S.I.R.O. Wildlife Research, **4**: 97–107, 108–130, 131–155, 156–181.—An important study of Australian ducks in an area subject to periodic drought. In Part I habitats are described and shown to fluctuate widely in amount each year. In Part II the highly erratic and extensive movements characteristic of some ducks are shown to be associated with changes in habitat and to vary between species. In Part III food habits of six common species are compared, and the ecological significance of diet variation is shown. Part IV is concerned with the effect of water levels on the breeding of three species. The differences in response are related to specific habitats and food habits of the young. The main species dealt with are *Anas gibberifrons*, *A. superciliosa*, *A. rhynchotis*, *Chenonetta jubata*, *Malacorhynchus membranaceus*, and *Aythya australis*.—J. P. R.
- GIBB, J. A. 1960. Populations of tits and goldcrests and their food supply in pine plantations. *Ibis*, **102**: 163–208.—A description of a five-year study to test the hypothesis that populations of tits and goldcrests (*Regulus regulus*) are controlled by food shortage and to assess the effect of predation by birds on populations of forest insects.—J. W. H.
- GOODACRE, M. J. and D. LACK. 1959. Early breeding in 1957. *Brit. Birds*, **52**: 74–83.—Following an unusually mild winter and early spring, seven resident passerine species and one resident owl laid 6–12 days earlier than usual. Less-certain evidence is given for other British resident species. Temperature is thought to act directly on the birds.—F. M.

- HOFFMANN, L. 1958. An ecological sketch of the Camargue. *Brit. Birds*, **51**: 321-350.—Describes the habitats and vertebrate fauna with special emphasis on birds. Includes a selected bibliography on the region.—F. M.
- LINKOLA, P. 1959. [On bird census methods in inland waters.] *Ornis Fennica*, **36**: 66-78.—The span of nesting period on a lake necessitates at least four censuses throughout May and June to give a complete record of bird densities. (In German.)—M. D. F. U.
- MATHESON, C. 1957. Further Partridge records from Wales. *Brit. Birds*, **50**: 534-536.—Total bags of *Perdix perdix* on two estates from 1866 to 1950.—F. M.
- PINOWSKI, J. 1959. Factors influencing the number of feeding Rooks (*Corvus frugilegus frugilegus* L.) in various field environments. *Ekologia Polska—Seria A*, **7**: 435-482.—Number of feeding birds varies with the type of fields. More Rooks are found in sparsely wooded fields than in those densely wooded, during the period of intensive feeding. Rooks call far less frequently than Jackdaws while feeding, but they call as often as Jackdaws when alighting with or flying over the feeding flock. Large feeding flocks were found in treeless field areas, while in fields with many clumps of trees flocks were small. Good visibility in open country is thought to favor "passive cooperation" in searching for food.—F. M.
- SIIIRA, J. 1959. [Notes concerning the census of breeding populations of species of the genus *Anas*.] *Ornis Fennica*, **36**: 98-107.—Egg-laying time and the beginning of the incubation period was found most suitable for census, and repeated counts were found necessary. (In Finnish; with English summary.)—M. D. F. U.
- SOUTHERN, H. N. 1959. Mortality and population control. *Ibis*, **101**: 429-436.—Death rate is considered to be a more important density-dependent regulator of bird populations than birth rate. Data on Tawny Owls uphold the importance of mortality and indicate that it is a factor in populations that seems to control level by territorial spacing. Southern argues that birth rate is a part of mortality, since "it is a fine point whether an egg should fall into different categories according to whether it dies inside or outside the parent's body"; in other words, repression is effective mortality just as is a young bird starving to death.—J. W. H.
- STINE, P. M. 1959. Changes in the breeding birds of Bird Haven Sanctuary over a period of forty-five years. *Wilson Bull.*, **71**: 372-380.—The area includes woods and fields once owned by Robert Ridgway in Richland County, Illinois, and the 45 years spanned began with a few years of his observations and ends with 10 years of the author's observations. Eighty-one species of birds are noted, most of which were present in all years concerned.—J. T. T.
- SUMMERS-SMITH, D. 1959. The House Sparrow *Passer domesticus*: population problems. *Ibis*, **101**: 449-454.—House Sparrows are partial to areas of dense human population (ratio, one sparrow: five humans). Estimates of numbers of House Sparrows per acre in urban, suburban, and rural areas in Great Britain, Germany, and U.S., among other regions, allow estimates of total populations of sparrows (10 million in Great Britain). Seasonal composition and mortality in populations in Great Britain are discussed. Food supply and colonial behavior seem to be important factors in control of population size.—J. W. H.
- VALVERDE, J. A. 1958. An ecological sketch of the Coto Donana. *Brit. Birds*, **51**: 1-23.—Describes the different habitats and the vertebrate fauna of each.—F. M.

- WILLIAMSON, K. 1958. Population and breeding environment of the St. Kilda and Fair Isle Wrens. *Brit. Birds*, **51**: 369-393.
- WYNNE-EDWARDS, V. C. 1959. The control of population-density through social behaviour: a hypothesis. *Ibis*, **101**: 436-441.—It is a fact that size of population and food supply of a given species are directly correlated. Population density arises from the activity of the animals, implying internal control or self-regulated density. The author hypothesizes that animals have become adapted to this controlling ability and are able to limit the population to its optimum level. Further it is suggested that this result is achieved by "imposing artificial goals [such as are achieved in social displays, singing] as substitutes for competing for food. . ." These goals impose a ceiling density *below* starvation level and direct combat for food.—J. W. H.

GENERAL BIOLOGY

- ALLEN, F. G. H. 1960. A nest of the Spine-tailed Swift *Chaetura g. gigantea*. *Ibis*, **102**: 126-127.—The first known nest of this nominate race is described from the Cameron Highlands, Malaya. The nest differs from that described by Lack for *C. g. indica*; a comparison of nest site and construction in the two races is made.—J. W. H.
- BARTKOWIAK, S. 1959. Contributions to the biology of the great tit, *Parus major* (L.), during the breeding period. *Acta Ornithologica*, **5**: 217-232.—Feeding frequencies were studied and found to be greatest between the 8th and 15th days after hatching at the five nests studied. While atmospheric conditions are decisive in the first days of nestling life, later the size of clutch and availability of food also influence the length of nestling period. (In Polish; with Russian and English summary).—M. D. F. U.
- BATESON, P. P. G., and R. C. PLOWRIGHT. 1959. The breeding biology of the Ivory Gull in Spitsbergen. *Brit. Birds*, **52**: 105-114.
- BROWN, L. H. 1960. The African fish eagle *Haliaeetus vocifer* especially in the Kavirondo Gulf. *Ibis*, **102**: 285-297.—Data are presented on numbers, movements, territories, home ranges, mutual stimulation to breed, breeding and hunting difficulties (caused by overcrowding), food habits, breeding cycle, breeding season (and its relation to food supply and climate), and breeding success.—J. W. H.
- BURTON, P. J. K. and M. H. THURSTON. 1959. Observations on Arctic Terns in Spitsbergen. *Brit. Birds*, **52**: 149-161.—Discusses diurnal rhythms, predation, nesting associations, mobbing, and feeding.—F. M.
- CAMPBELL, B. 1959. Attachment of Pied Flycatchers *Muscicapa hypoleuca* to nest-sites. *Ibis*, **101**: 445-448.—*M. hypoleuca* was studied on nesting grounds of 60 acres of oakwood in Gloucestershire from 1947-58. The birds utilized 250 nest boxes on 200 trees scattered at about 50-yard intervals. Data are given on frequency of birds returning to nests where born and/or where previously nested. Males proved to have a closer attachment to the previous nesting site (average return to 125 yards away compared with 175 yards for female). Nestlings show no attachment to birth site. Failure of some adults to return to exact former nest site is probably primarily due to existence of many equally suitable sites.—J. W. H.
- COX, G. W. 1960. A life history of the Mourning Warbler. *Wilson Bull.*, **72**: 5-28.—The breeding activities of *Oporornis philadelphia* were studied in the

- Itasca State Park, Minnesota. Described are habitats, territories, voice, nesting, and care of young after they leave the nest.—J. T. T.
- GERBER, R. 1958. Die Rohrdommel [*Botaurus stellaris*]. Falke, **5**: 111–116.—General account of biology of the European Bittern.—E. E.
- GILLHAM, E. H. 1958. Further notes on the Tufted Duck in St. James's Park, London. Brit. Birds, **51**: 413–426.—Study of the breeding and postbreeding phases in *Aythya fuligula*. Topics discussed are nonbreeders, spans of nesting, hatching, fledging and molt periods, mixed broods, clutch and brood sizes, unattached young and their adoption by unattached females, desertion of the young by the female, duckling mortality, the wing molt in adult females, and postbreeding movements.—F. M.
- HANGSTROM, B. 1959. Ur gökytans [*Jynx torquilla*] familjeliv. Fauna och Flora, **1959**: 1–8.—The family life of the Wryneck. Observations suggest that the parents try to induce the smaller young to leave the nest to join the older siblings. (In Swedish; English summary.)—E. E.
- HAUSER, D. C. 1959. Notes on pairing and nest-building of mismatched vireos. Wilson Bull., **71**: 383–384.—A female *Vireo solitarius* mated to a male *V. flavifrons*, at Fayetteville, North Carolina, built a nest with proportions typical of her species. She was later replaced by a female *V. flavifrons*, which worked on the nest, but it was never used.—J. T. T.
- LØVENSKIOLD, H. L. 1960. The Snow Petrel *Pagodroma nivea* nesting in Dronning Maud Land. Ibis, **102**: 132–134.—Nesting places of the Snow Petrel in the Antarctic south and east of "Norway Station" are listed. The birds breed in colonies well inland where the mountains meet the glacier. Here they lay in burrows and incubate the eggs, which rest against the belly skin and on the long breast feathers. When approached they eject an oily, odorless spray the color of tomato juice. This substance hardens to rocklike consistency and coats the entrances and vicinities of burrows. Skuas are associates of the petrels, preying on the young.—J. W. H.
- MACNAE, W. 1960. Greater flamingoes eating crabs. Ibis, **102**: 325–326.—*Phoenicopterus ruber* feeds on soldier crabs, *Dotilla fenestrata*, on sand flats near the island of Inhaca, entrance of Bay of Lourenço.—J. W. H.
- MEBS, T. 1958. Beitrag zur Siedlungsdichte und Brutbiologie des Mäusebussards (*Buteo buteo* L.). Vogelwelt, **79**: 161–170.—Data on population density and breeding biology of the Common Buzzard.—E. E.
- TOMKINS, I. R. 1959. Life history notes on the Least Tern. Wilson Bull., **71**: 313–322.—*Sterna albifrons* has decreased greatly in the vicinity of Savannah, Georgia, since 1930, for no known cause. Courtship and nesting are briefly discussed.—J. T. T.
- WARNCKE, K. 1958. Zur Brutbiologie des Schwarzstirnwürgers (*Lanius minor*). Vogelwelt, **79**: 177–181.—On the breeding biology of the Lesser Gray Shrike.
- WARNER, D. W. 1959. The song, nest, eggs, and young of the Long-tailed Partridge. Wilson Bull., **71**: 307–312.—*Dendrortyx macroura*, observed along the border of the Mexican States of Morelos and Mexico.—J. T. T.
- WAYNE, P. and G. F. JOLLY. 1958. Notes on the breeding of the Iceland Gyr Falcon. Brit. Birds, **51**: 285–290.
- WENDLAND, V. 1958. Der Schreiadler [*Aquila pomarina*]. Falke, **5**: 6–13.—General biology (particularly breeding) of the Lesser Spotted Eagle in north Germany.—E. E.

- WILLIAMS, G. 1959. Some ecological observations on the Purple Heron [*Ardea purpurea*] in the Camargue. *La Terre et la Vie*, 1959: 104-120.—Data on annual cycle, migration, breeding sites (*Phragmites* beds), reproduction, food habits, etc. (In English; French summary.)—E. E.

MANAGEMENT AND CONSERVATION

- BOYD, H. 1959. The composition of goose populations. *Ibis*, **101**: 441-445.—Knowledge of changes in size and composition of populations is important in conservation of geese. Examples are cited of long-term studies in the U.S., and recommendations made for similar work in Great Britain and on the European continent. Although banding has been helpful, direct observation of flocks is proving valuable in determining age structure, breeding success and mortality of flocks. New information on populations and habits is presented and application to management discussed.—J. W. H.
- BURKHOLDER, P. R. 1960. Penguins thrive on antibiotic plankton. *Parks and Recreation*, **43**: 264.—Penguins feed on euphausiids, *Euphasia superba*, which exhibit strong antibacterial properties against aerobic bacteria in some birds, and against all bacteria in the upper gastrointestinal segments of other birds. The source of the antibiotic is a yellow-green alga, *Phaeocystis poucheti*, eaten by the euphausiids. Perhaps, penguins would thrive in captivity if they were kept cool and provided with special feeds.—R. T. R.
- HANSON, H. C. 1959. The incubation patch of wild geese: its recognition and significance. *Arctic*, **12**: 139-150.—A discussion of the use of the incubation patch as an aid in population studies. In Canada Geese, presence or absence of the patch (or the refeathered area) can be used throughout the flightless period, in addition to cloacal characters, to distinguish older females from yearlings and adult females from adult males. At this time the patch could give a measure of the proportion of females that have laid eggs, and thus a measure of the extent of nonbreeding. The refeathered patch cannot be reliably identified in winter.—F. M.
- MURTON, R. K. 1960. The effect on Wood-pigeon breeding of systematic nest destruction. *Annals of Applied Biology*, **48**: 95-106.—*Columba palumbus* is considered an agricultural pest in some parts of England. Nest destruction as a means of control was tested, and found to reduce the number of fledged young in test areas to 37 per cent of normal expectation. Nest destruction is somewhat more expensive (figuring labor costs) than shooting, but is more efficient and can be done by less skilled employees.—K. C. P.
- REUTHER, R. 1960. We're learning how to feed albatrosses. *Parks and Recreation*, **43**: 267.—Successful maintenance of albatrosses in captivity requires sufficient NaCl in their diets. At the Cleveland Zoo such birds are fed 18½ grains of salt and one multivitamin capsule as a precautionary measure daily inserted in fish. Almost any fish is suitable food. Some birds are self-feeders and others require force feeding.—R. T. R.

MIGRATION AND ORIENTATION

- ALLEN, R. H. and G. RUTTER. 1958. The moult migration of the Shelduck from Cheshire in 1957. *Brit. Birds*, **51**: 272-274.
- BELLROSE, F. C. and J. G. SIEH. 1960. Massed waterfowl flights in the Mississippi flyway, 1956 and 1957. *Wilson Bull.*, **72**: 29-59.—The tremendous flights of

- waterfowl occurring on 6-8 November 1956 and 23-25 October 1957 are described, especially as they were observed crossing the northern states in the Mississippi Valley. Elevation, direction, effect of geography on direction, speed, and the associated weather are included.—J. T. T.
- BIRD MIGRATION. A Bulletin of the British Trust for Ornithology. Vol. 1. No. 1. December 1958.—A new journal, edited by Kenneth Williamson, the recently appointed Migration Research Officer of the B.T.O., will be published twice yearly. The scope of the journal is similar to that of Audubon Field Notes; detailed reports from the network of British Bird Observatories, documenting the spring and fall migrations, with digests and analyses of special topics. This publication will be welcomed especially by students of migration in Britain and on the continent.—F. M.
- BOASE, H. 1959. Shelduck counts in winter in east Scotland. *Brit. Birds*, **52**: 90-96.
- BROWNE, P. W. P. 1958. A North Atlantic transect in September. *Brit. Birds*, **51**: 93-99.
- BROWNLOW, H. G. 1960. Migrational fidelity in Egypt. *Ibis*, **102**: 126.—Olivaceous Warblers, *Hippolais pallida*, are shown by banding to return to previous nesting areas to breed. Fidelity of Willow Warblers, *Phylloscopus trochilus*, and Garden Warblers, *Sylvia borin*, to migration routes is revealed, as well as fidelity to wintering areas of Stonechat, *Saxicola torquata*, and Chiffchaff, *Phylloscopus collybita*.—J. W. H.
- HOFFMANN, K. 1959. Über den Einfluss verschiedener Faktoren auf die Heimkehrleistung von Brieftauben. *Jour. für Ornith.*, **100**: 90-102.—On the influence on homing by carrier pigeons of various factors (age, training, failure to keep in training, direction, locality).—E. E.
- JONES, H. I. 1957. Some observations on birds in the North Atlantic. *Brit. Birds*, **50**: 528-534.—Observations in August from a weather ship 300 miles south of Iceland.—F. M.
- KUMERLOEVE, H. 1957. Ornithologische Beobachtungen im "Zubringerraum" (Bulgarisch-Rumänische Schwarzmeerküste) des Bosphoruszuges. *Bonn. Zool. Beitr.*, **8**: 248-274.—Bird migration observations on the Black Sea coast of Bulgaria and Roumania.—E. E.
- LACK, D. 1960. Migration across the North Sea studied by radar. Part 2. The spring departure 1956-59. *Ibis*, **102**: 26-57.—Data were collected from late February to late April in four years. Bird echoes were most common around 9:00 P.M., with a smaller peak soon after dawn. Volume of emigration was influenced by internal state of the bird, temperature, wind speed, rain, and cloud cover. There was more migration in warm than cold weather in February and March but not later. Marked temperature change had no immediate effect. Morning migration was visible from the ground with opposed but not with following winds. Most migration was below 5,000 feet, some to 13,000 feet. Migration was north of east with southerly winds, south of east with a northerly wind. Sense of direction but not sense of position seems to be maintained. With total overcast, migrants flew at random, gradually drifting with the wind. Observations of Starling flocks are described.—J. W. H.
- LOFFS, B. and A. J. MARSHALL. 1960. The experimental regulations of *Zugunruhe* and the sexual cycle in the Brambling *Fringilla montifringilla*. *Ibis*, **102**: 209-214.—Captive Bramblings kept under light conditions of winter during normal migratory period showed no significant gonadal enlargement or evidence

- of *Zugunruhe*. When photoperiod was increased (after normal migratory season) to 14½ hours, nocturnal unrest appeared. The Brambling does not come rhythmically into breeding condition as do young of xerophilous species (such as *Melospittacus undulatus*). Accompanying light-induced unrest was fat deposition and gonad enlargement in males. Experimentation with castrates suggests that *Zugunruhe* and migration can occur in absence of sex hormones.—J. W. H.
- MCCARTAN, L. 1958. The wreck of Kittiwakes in early 1957. *Brit. Birds*, **51**: 253–266.
- MCLEAN, I. and K. WILLIAMSON. 1958. Waders at ocean Weather Ships in 1956. *Brit. Birds*, **51**: 152–156.
- MCLEAN, I. and K. WILLIAMSON. 1958. Migrant land-birds in the Western Approaches. *Brit. Birds*, **51**: 351–353.—Observations in April and October 1957 from a weather ship located in the Atlantic 500 miles from Land's End and 300 miles from the northwest corner of Spain.—F. M.
- MEWALDT, L. R. and R. G. ROSE. 1960. Orientation of migratory restlessness in the White-crowned Sparrow. *Science*, **131**: 105–106.—*Zonotrichia leucophrys gambelii* and *Z. l. pugetensis* were kept in a cage designed for continuous automatic recording of activity, at San Jose, California. During the normal migration period the birds showed strong orientation of nocturnal (but not diurnal) activity, toward the north in spring and south in fall. The more diffuse orientation in fall than in spring is ascribed to the birds being close to their normal wintering area but far from the breeding grounds.—K. C. P.
- NORDSTRÖM, G. 1958. Bird-banding in Finland in the years 1913–1957. *Ornis Fennica*, **35**: 113–121.—A list of species with the number of each banded and recovered, percentage of recoveries, and the countries in which recoveries have been made. Of 215 species, 259,367 individuals banded, 6,457 (2.4 per cent) were recovered. The longest distances (to South Africa) were travelled by an Arctic Tern (10,860 km.) and a Common Tern and a Spotted Flycatcher (over 10,550 km.). One Lesser Black-backed Gull was recovered 26 years and 8½ months after being banded as a nestling.—E. E.
- RAPPE, A. 1959. Contribution à l'étude de la migration vespérale. *Gerfaut*, **49**: 83–90.—In autumn certain diurnal migrants resume migration for a couple of hours before sunset. Among such vesper migrants is the Barn Swallow.—E. E.
- SAGE, B. L. and B. KING. 1959. The influx of Phalaropes in autumn 1957. *Brit. Birds*, **52**: 33–42.
- SALOMONSEN, F. 1959. [Eighth preliminary list of recoveries of birds ringed in Greenland.] *Dansk Orn. Foren. Tidsskr.*, **53**: 31–39.—The banding data indicate that most Greenland migrants winter in Europe. Among the American recoveries: King Eiders breeding in Arctic Canada migrate to molt in western Greenland; the high Arctic race of the Black Guillemot (*Cepphus grylle ultrimus*) banded in Greenland recovered on Baffin Island; Parasitic Jaeger banded on 19 July taken less than a month later 15 August 1958 in Newfoundland. A Snow Bunting banded in N.E. Greenland taken in N.E. Russia; as this is the second similar recovery, the writer believes that the N.E. Greenland population crosses the Polar Sea to northern Russia to winter in the steppes. (In Danish; full English summary; banding data self-explanatory.)—E. E.
- SMITH, F. R. 1959. The Crossbill invasion of 1956 and the subsequent breeding in 1957. *Brit. Birds*, **52**: 1–9.

- SWIRSKI, Z. 1956. [Results of Polish bird ringings. The Grey Heron (*Ardea c. cinerea* L.)] Acta Ornithologica, **5**: 51-75.—315 returns out of 2509 Polish banded birds (1932 to 1950) and 231 returns of foreign banded birds indicate wintering grounds in the S. W. Mediterranean area, and S. Italy-Tunisia. Numerous cases of strong philopatry (return to birth place) are indicated. Longevity and mortality are also calculated. (In Polish; with Russian and German summary.)—M. D. F. U.
- SZCZEPSKI, J. B. and M. W. SZCZEPSKI. 1956. Compte rendu de l'activité de la Station Ornithologique pour l'année 1950. Acta Ornithologica, **5**: 77-112.—This is essentially a banding report of the Station personnel (Director: J. B. Szczepski) and volunteers throughout Poland. 6,406 birds belonging to 99 species were banded, 132 recovered. (In Polish; with Russian and French summary.)—M. D. F. U.
- SZCZEPSKI, J. B. and M. W. SZCZEPSKI. 1957. Report of the Ornithological Station for 1951. Acta Ornithologica, **5**: 161-209.—10,613 birds were banded, 214 recovered in Poland. (In Polish; with Russian and English summary.)—M. D. F. U.
- SZCZEPSKI, J. B. and M. W. SZCZEPSKI. 1959. Report of the Ornithological Station for 1952. Acta Ornithologica, **5**: 233-282.—12,557 birds were banded, 224 recovered in Poland. Research was continued in use of birds for control of the Colorado beetle, and on wintering waterfowl of the Wisła river. (In Polish, with Russian and English summary.)—M. D. F. U.
- THOMSON, A. L. 1958. The migrations of British Hawks (Accipitridae) as shown by ringing results. Brit. Birds, **51**: 85-93.
- THOMSON, A. L. 1958. The migrations of British Falcons (Falconidae) as shown by ringing results. Brit. Birds, **51**: 179-188.
- VAUGHAN, R. 1960. Notes on autumn migrants in Morocco. Ibis, **102**: 330-332.
- VLEUGEL, D. A. 1959. [About the most probable method of wind orientation in migrating Chaffinches.] Ornis Fennica, **36**: 78-88.—The author argues for the hypothesis that the bird, sun-oriented when starting, keeps its direction by anemotaxis. (In German.)—M. D. F. U.
- WEST, J. D. and J. M. SPEERS. The 1956-1957 invasion of Three-toed Woodpeckers. Wilson Bull., **71**: 348-363.—During the 1956-57 fall and winter season 59 records of *Picoïdes tridactylus* and 293 records of *P. arcticus* were made in southeastern Canada and northeastern United States. The data are fully reported.—J. T. T.
- WILLIAMSON, K. 1958. Bergmann's Rule and obligatory overseas migration. Brit. Birds, **51**: 209-232.—In a polytypic species the body size of a subspecies tends to increase with the decreasing mean temperature of its habitat. The selection pressures responsible for this tendency have been thought to be operating on the breeding grounds or on the wintering grounds. Evidence is presented to show that in some species (*e.g.*, *Oenanthe oenanthe*, *Turdus musicus*, *Falco columbarius*, *Tringa totanus*) selection operates during the period of migration. Races making a long overseas flight have greater body weight and longer wing and tail.—F. M.
- ZABŁOCKA, T. 1959. Spring arrival of the White Stork, *Ciconia ciconia* (Linn.), in Poland in 1946-1952. Acta Ornithologica, **5**: 283-299.—Reports of 2842 first arrival dates from seven years are evaluated. (In Polish; with Russian and German summary.)—M. D. F. U.

PHYSIOLOGY

- KIRKPATRICK, C. M. 1959. Testicular response in Bobwhites to interrupted dark periods. *Wilson Bull.*, **71**: 337-343.—Pairs of *Colinus virginianus* were exposed to a daily cycle of nine hours of light, then seven of darkness, one of light, and seven of darkness. Sperm production began seven and 14 days after the treatment started, but the first egg was not produced until 61 days.—J. T. T.
- LEHRMAN, D. S. 1959. Hormonal responses to external stimuli in birds. *Ibis*, **101**: 478-496.—Appropriate external stimuli seem to stimulate hormonal activity in birds: for example, stimuli arising from courtship behavior induce secretion of FSH in the female of many species while nesting material may cause secretion of LH. In many species, general environmental variables induce more rapid development in males than in females. Thus, males arriving at the breeding ground are usually closer to sexual maturation than females. The physiological-anatomical basis for the reflex causation of changes in hormonal levels due to external stimuli is established. Synchronization of male and female is due to hormonal excitation caused by mutual stimulation and that evoked by eggs and young.—J. W. H.
- MARSHALL, A. J. 1959. Internal and environmental control of breeding. *Ibis*, **101**: 456-478.—The phases of the internal reproductive rhythm are discussed. The roles of external regulating factors (light, temperature, rainfall, territory, nest site and materials, food, behavioral interactions) are considered in turn. The sexual cycle and timing of breeding in different latitudes and environments are considered and correlated with migrational habits.—J. W. H.
- PEIPONEN, V. 1959. [Color vision and the colored oil globules in the eye of birds.] *Ornis Fennica*, **36**: 88-94.—Field experiments indicated that three species of passerines showed color preference corresponding to their own plumage coloration. Microscopic study showed that the central part of their retina contains predominantly oil globules of the corresponding color. This fact is interpreted as facilitating the species-specific color perception. (In German.)—M. D. F. U.
- SCHMIDT-NIELSEN, K. 1960. The Salt-Secreting Gland of Marine Birds, in *Symposium on Salt and Water Metabolism, Circulation*, Vol. **21**: 955-967.—An important review article on the extrarenal excretion of Na, K, and Cl by the supra-orbital gland. More information is given on the anatomical structure, counter-current flow, and a counter-current multiplier system. Adrenaline and carbonic anhydrase inhibitors block secretion.—F. G. C.
- SCOTHORNE, R. J. 1959. Histochemical study of succinic dehydrogenase in the nasal (salt secreting) gland of the Aylesbury Duck. *Quart. Jour. Exp. Physiol.*, **44**: 329-332.—The distribution of succinic dehydrogenase in the nasal gland of the Aylesbury Duck (domestic Mallard) was studied histochemically. The enzyme concentration was high in the secretory tubules and low in the duct system. Concentration of the enzyme is apparently correlated with a concentration of mitochondria.—F. G. C.
- SCOTHORNE, R. J. 1959. The nasal glands of birds: a histological and histochemical study of the inactive gland in the domestic duck. *Jour. of Anat.*, **93**: 246-257.—Secretory cells of the gland are characterized by their eosinophilia and unusually abundant mitochondria. Serozymogenic and mucous elements are absent. Nasal glands are less obvious in the domestic duck than in wild mallards because of fresh-water habitat of former. Secretion was at rate of 400 m.eq/litre of Na and 500 m.eq/l. Cl.—F. G. C.

WOLFSON, A. 1960. The ejaculate and the nature of coition in some passerine birds. *Ibis*, **102**: 124–125.—In some passerines sperm are characteristically gathered into dense masses in a liquid exudate. Sperm in these tiny drops are highly motile and move radially. The tiny papilla protruding from the cloaca in at least some male passerines is inserted into the cloaca of females and the mass of sperm implanted at the mouth of the oviduct through the groove-like passageway in the papilla. Seasonal appearance of the protuberance may be related to reproductive success and reproductive isolation of species. Genital characters of nonpasserines are noted.—J. W. H.

TAXONOMY AND PALAEOLOGY

- HALL, B. P. 1960. Variation in the African Black Tits, *Parus niger* and *Parus leucomelas*. *Ibis*, **102**: 116–123.—The relationship between Black and Grey Tits is discussed. Variable characters of the Black Tit are listed; five forms can be distinguished; the characters, ranges, and ecology of the five forms are listed, together with discussion of atypical populations and regional variation. Speciation, it is concluded, is taking place in many populations of *P. niger*, making assessment of relationships difficult. *P. n. niger* and *carpi* are considered specifically distinct from the others. *P. l. leucomelas* and *insignis* need more study in Uganda and Abyssinia; *purpurescens* is regarded as a race with further work needed.—J. W. H.
- MAYAUD, N. 1958. La Gorge-bleue à miroir *Luscinia svecica* en Europe. Evolution de ses populations. Zones d'hivernage. *Alauda*, **26**: 290–301.—Taxonomy and winter ranges of the White-spotted Bluethroats of Europe.—E. E.
- MOREAU, R. E. 1960. Conspectus and classification of the Ploceine Weaver-Birds. *Ibis*, **102**: 298–321.—Parts 1 and 2 of a four-part paper to be included in a subsequent number of the *Ibis*. Part 1 deals with allocation of genera to groups, and Part 2 deals with the author's Group A Ploceinae. Classification in past, rearrangement at specific level, plumage, environment, nests and nest sites, eggs and clutch size, food and beaks, size and proportions, and classification are discussed.—J. W. H.
- PARKES, K. C. and D. AMADON. 1959. A new species of rail from the Philippine Islands. *Wilson Bull.*, **71**: 303–306.—*Rallus mirificus*, new species, Luzon, Philippine Islands. A color plate illustrates the bird.—J. T. T.
- PIMENTEL, R. A. "1959" [=1960]. Mendelian infraspecific divergence levels and their analysis. *Syst. Zool.*, **8**: 139–159.—The first of two parts attempts to define "levels" ("patterns" would perhaps be a better word) of infraspecific differentiation, from the uniform, continuous population to the subspecies. The author, deploring the abuse of the latter category, defines it as "a physically isolated, obviously different entity that would crossbreed with the rest of its species IF contact occurred under natural conditions." The author accepts a consistent separation of 84 per cent in "several characters" as "meriting subspecific designation." The second part recommends "reliable procedures" for infraspecific analysis that appear to be utterly unrealistic for bird (and probably many other) taxonomists, presupposing complete freedom of choice of collecting localities and sample sizes. The author considers himself a "student of biometry," and his seeming disdain for most taxonomists is implicit throughout the paper. He calls his concept the "new" or "restricted" subspecies, as opposed to the "old," "unrestricted," or "broad" subspecies. The author steers a middle

- course through the debate long filling the pages of "Systematic Zoology" by dwelling on the shortcomings of the viewpoints of extremists.—K. C. P.
- SIBLEY, C. G. 1960. The electrophoretic patterns of avian egg-white proteins as taxonomic characters. *Ibis*, **102**: 215–284.—Electrophoretic profiles of egg-white proteins of 359 nonpasserines and the bearing of these on understanding taxonomic relationships is discussed by family. There is a detailed appendix giving profile data for all species studied and a phylogenetic tree.—J. W. H.
- STARCK, D. 1959. Neuere Ergebnisse der vergleichenden Anatomie und ihre Bedeutung für die Taxonomie, erläutert an der Trigemini-Muskulatur der Vögel. *Jour. für Ornith.*, **100**: 47–59.—Observations on the light thrown by the trigeminal musculature of birds on their taxonomy—particularly the Accipitres (Falconiformes). The Falconidae and the owls are considered more closely allied than are the Falconidae to the Accipitridae, and the New World vultures Catartidae are also quite distinct.—E. E.
- СТОКОЕ, R. 1958. The spring plumage of the Cormorant. *Brit. Birds*, **51**: 165–179.—Discussions of plumage, size, and distribution suggest that the two European races of the Cormorant *Phalacrocorax c. carbo* and *Ph. c. sinensis* are not separable in the field, if at all. A cline of decreasing size and increasing greenness of gloss and whiteness of head from west to east is postulated.—F. M.
- VAURIE, C. 1960. Systematic notes on Palearctic birds. No. 40. Caprimulgidae. *Amer. Mus. Novitates*, **1997**: 14 pp.—No races are recognized of *C. inornatus*, which is so variable that not even color phases can be defined. *C. indicus memnon* Koelz is a synonym of *C. i. hazarae*. *C. nubicus taruensis* is upheld, *contra* Mackworth-Præd and Grant. Four races of *C. europæus* are accepted, *sarudnyi* Hartert being a synonym of *europæus*. The population in England is shown to differ from continental birds, but below the subspecific level. *C. ruficollis* is definitely recorded from the Balearic Islands for the first time. Most authors admit only two races of *C. aegyptius*, but Vaurie also upholds *arenicolor* Severtzov, to which most of the casual extralimital records probably belong.—K. C. P.
- VAURIE, C. 1960. Systematic notes on Palearctic birds. No. 41. Strigidae: the genus *Bubo*. *Amer. Mus. Novitates*, **2000**: 31 pp.—A detailed review of *B. bubo*, and a short note on *B. africanus*. Sixteen races of *B. bubo* are admitted, including *bengalensis* and *ascalaphus*, both of which have been considered full species by some authors. The latter form interbreeds with a race of *bubo* at the eastern end of its range, but overlaps (or formerly did so) another race at the western end. Although Vaurie does not specifically mention this point, *Bubo bubo* may thus be added to the list of species demonstrating an "overlapping circle" of subspecies. Three races of *B. africanus* are admitted, with *kollmanspergeri* Niethammer placed as a synonym of *cinerascens*.—K. C. P.

The short reviews in the Recent Literature section of *The Auk*, vols. 76 and 77, were contributed by the following persons (their identity being indicated in most instances by initials): P. H. Baldwin, F. G. Cooch, W. C. Dilger, S. T. Dillon, E. Eisenmann, J. W. Hardy, H. Howard, J. C. Howell, D. W. Johnston, S. C. Kendeigh, R. F. Labisky, F. McKinney, H. C. Mueller, M. T. Myres, R. W. Nero, K. C. Parkes, R. E. Phillips, R. T. Reuther, J. P. Rogers, H. C. Siebert, R. I. Smith, J. T. Tanner, M. A. Traylor, F. J. Turček, M. D. F. Udvardy, A. Wetmore.