

RECENT LITERATURE

EDITED BY FRANK MCKINNEY

ANATOMY AND EMBRYOLOGY

- AUBER, L. 1957. The distribution of structural colours and unusual pigments in the Class Aves. *Ibis*, **99**: 463-476.—The two types of common structural colors (barbule-borne iridescence and Tyndall color) in feathers do not occur together (some members of the Cuculidae, Thraupinae, and Paradiseidae are exceptions). Tyndall colors of bare skin and beaks usually do not occur intensely in birds with either type of structurally-colored feathers.—R. F. J.
- DAVIS, J. 1957. Determination of age in the Spotted Towhee. *Condor*, **59**: 195-202.—For determining age in *Pipilo erythrophthalmus* the author has employed five characteristics in combination: color of primary coverts, shape of rectrices, width of white spots on the fourth rectrix, wear, and iris color.—D. W. J.

BEHAVIOR

- ANDREW, R. J. 1957. Influence of hunger on aggressive behavior in certain buntings of the genus *Emberiza*. *Physiol. Zool.*, **30**: 177-185.—Aggressive encounters become more frequent in flocks of *E. citrinella* after food is removed. This is caused by increased activity due to hunger. After fasting, encounters are frequent because of close crowding of birds trying to feed at once. Experiments suggest that hunger has no direct effect on the threshold of aggressive responses. The relation of aggression to other "drives" is discussed and it is suggested that aggression should not be considered as subordinated to other instincts (sex and feeding).—F. M.
- BANKS, E. M., and W. C. ALLEE. 1957. Some relations between flock size and agonistic behavior in domestic hens. *Physiol. Zool.*, **30**: 255-268.—Variations in rates of pecking, threatening, and avoiding in flocks containing 6, 12, and 24 hens are interpreted in terms of dominance relationships and the effects of crowding.—F. M.
- DAVIS, D. E. 1957. Aggressive behavior in castrated Starlings. *Science*, **126** (3267): 253.—"This paper reports the maintenance of aggressive behavior in castrated starlings and the failure of testosterone to affect their social rank."
- DZUBIN, A. 1957. Pairing display and spring and summer flights of the Mallard. *Blue Jay*, **15**: 10-13.—A brief account which describes the main display postures and reports original observations on aerial behavior made in Manitoba and Saskatchewan. Spring courtship flights, territorial pursuits, group chases, and summer courtship flights are distinguished. The Continuous Call of the female is heard during a short period prior to egg-laying.—F. M.
- GOODWIN, D. 1956. The significance of some behaviour patterns of pigeons. *Bird Study*, **3**: 25-37.—Observations on many species are reported. Head Shaking, resembling the comfort movement, occurs in response to another bird's "coos." It appears to be the outlet for psychological as well as physical irritants. It may be inhibited in the case of positive sexual feeling toward the other bird. Nodding is derived from nest-building movements and signifies the bird's intention of "holding its ground." It may be hostile or appeasing in context. Driving occurs only in the presence of other pigeons and serves to prevent the mate being inseminated by other males. The behavior of the male when interfering with

- copulation of another pair has the same causation and function as driving. The interfering male reacts to the female of the pair as though she were his mate. An instantaneous response to the sight of a pair copulating is thought to have survival value in ensuring efficient protection of the mate when she happens to be the bird involved. Displacement preening and caressing are also discussed.—M. T. M.
- HAMERSTROM, F. 1957. The influence of a hawk's appetite on mobbing. *Condor*, 59: 192-194.—A tethered male Red-tailed Hawk was mobbed more frequently when hungry ("sharp set") than when well fed. It was mobbed more consistently at high rather than at low perches, and also when flying low rather than soaring. Conditioned mobbing was observed to occur in Robins.—D. W. J.
- HINDE, R. A. 1954. The courtship and copulation of the Greenfinch (*Chloris chloris*). *Behaviour*, 7: 207-232.—A detailed analysis of the behavior of captive birds. Each behavior pattern which occurs during courtship and copulation is associated with a particular combination of strengths (and relative strengths) of tendencies to attack, flee from, and behave sexually toward the mate. The male is dominant to the female in winter but is subordinate during the breeding season. Comparisons are drawn between the Greenfinch and Chaffinch.—F. M.
- HINDE, R. A. 1956. The behaviour of certain Cardueline F_1 inter-species hybrids. *Behaviour*, 9: 202-213.—In a study of hybrids between *Carduelis carduelis*, *Chloris chloris*, and the domestic Canary, behavior patterns which are common to both parent species are unchanged in the hybrids. Other behavior patterns which differ in the parent species occur in an intermediate condition.—F. M.
- JOHNSTON, R. F. 1957. Selection and emberizine distraction display. *Condor*, 59: 266.
- LAHRMAN, F. W. 1957. Aggressive behavior of a Whooping Crane. *Blue Jay*, 15: 14-15.—A family of Whooping Cranes walked many yards toward the author, led by the male which behaved in an aggressive manner.—R. W. N.
- LEHRMAN, D. S. 1955. The physiological basis of parental feeding behavior in the Ring Dove (*Streptopelia risoria*). *Behaviour*, 7: 241-286.—Author's conclusions: "Prolactin acts to elicit parental regurgitation-feeding primarily because it causes engorgement of the crop and suppression of sexual behavior, rather than through an effect on central nervous mechanisms specific for parental behavior. The engorgement of the crop makes it sensitive to emetic stimuli provided by movements of the squab's head against the parent's breast. In addition, this crop-engorgement acts as a drive stimulus through which the dove learns to respond to the sight and/or sound of the squab."
- LOCKIE, J. D. 1956. Winter fighting in feeding flocks of Rooks, Jackdaws and Carrion Crows. *Bird Study*, 3: 180-190.—Aggressive behavior of *Corvus frugilegus*, *C. monedula*, and *C. corone* was either in defence of a mate, or over food. Various postures are illustrated. Courtship feeding and copulation continued until the mean temperature reached about 40° F. When the ground was frozen, fighting over food was greatly increased. In the warm fall of 1953, food was abundant but encounters were frequent (recrudescence of sexual behavior). It is suggested that food fighting combined with the existence of social hierarchy has the same survival value as asynchronous hatching in nestlings: the unequal distribution of food ensures that some birds survive in good condition.—M. T. M.
- MORRIS, D. 1956. The feather postures of birds and the problem of the origin of social signals. *Behaviour*, 9: 75-113.—This valuable review focusses attention on the part played by body-feather posturing in display. In a discussion of the

- thermoregulatory function of body feathers, four feather postures are distinguished: sleeked, relaxed, fluffed, and ruffled. The signal functions of these feather postures in both thwarting and nonthwarting situations are discussed. The physiological relationship between thwarting and feather-erection is thought to be the basis of feather-posture displays, and has led to the evolution of crests, ruffs, and other specialized structures. The somatic and autonomic responses to thwarting are discussed and the signal mechanisms which have evolved from alimentary, circulatory (bare-skin-flushing displays), respiratory (vocalization and inflation displays), and thermoregulatory changes (feather-erection displays) are described.—F. M.
- NAVAS, J. R. 1956. Manifestaciones Vocales de las gallaretas. *Hornero*, **10**: 119–135.—Description of the considerable differences in the call notes of *Fulica armillata* and *F. rufifrons*, with observations on distinctions in calls of male and female through which the sex may be recognized. (English summary.)
- RIPLEY, S. D. 1957. The display of the Sickle-billed Bird of Paradise. *Condor*, **59**: 207.
- ROST, K. 1957. Am winterlichen Schlafplatz der Türkentauben. *Journ. für Ornith.*, **98**: 204–209.—Discusses the roosting habits of the Collared Turtle-dove (*Streptopelia decaocto*) in relation to weather and time of year.—H. C. M.
- SCHAEFER, J. 1955. A White-billed Diver in captivity. *British Birds*, **48**: 501–504.—Observations on the behavior of a bird of the northern species *Gavia adamsii*.—M. T. M.
- SIMMONS, K. E. L. 1955. The nature of the predator-reactions of waders towards humans; with special reference to the role of the aggressive-, escape- and brooding-drives. *Behaviour*, **8**: 130–173.—An important review and discussion, illustrated by photographs and drawings. The reactions of nesting shorebirds are classified under the heading of escape, displacement-activities, demonstration, distraction-display, threat behavior, and attack. Most of the reactions, other than overt escape and attack, are the result of conflict between these two tendencies. The role of the brooding part of the parental drive is discussed. Although distraction-displays are so ritualized that their origin is obscure, it is suggested that the locomotory intention-movement may be the most important source.—F. M.
- SIMMONS, K. E. L. 1957. The taxonomic significance of the head-scratching methods of birds. *Ibis*, **99**: 178–181.—Birds scratch their heads either by bringing a leg straight up forward or by drooping a wing and bringing the leg up over the shoulder. Implications of the occurrence of these patterns are discussed; for example, Beecher's phylogeny of the oscines is not supported (the Timaliidae scratch straight forward).—R. F. J.
- THORPE, W. H. 1956. The language of birds. *Scientific American*, **195**(4): 128–138.—A general account of the types of sounds characteristic of birds and their functions. The Chaffinch (*Fringilla coelebs*) is used as an example. Chaffinches use an easily located call to warn of the location of a perched bird of prey. Flying birds of prey elicit a warning note which is difficult to locate. The Chaffinch inherits a song of about the length typical of the species. However, certain characteristics of the song must be learned from older more experienced singers. Individual Chaffinches have a critical six-week period of ability to learn a song pattern, following which their song pattern is fixed for life.—J. C. H.
- THORPE, W. H. 1957. Some implications of the study of animal behavior. *Scientific Monthly*, **84**(6): 309–320.—A review of past concepts of the behavior of animals

and a consideration of the meaning of recent researches. The behavior of animals other than man is more like that of man than earlier students of animal behavior believed it to be.—J. C. H.

BIBLIOGRAPHY AND BIOGRAPHY

- ROKITANSKY, G. 1957. Johann Natterer, Erster Ornithologe Oesterreichs. Journ. für Ornith., 98: 133–144.—A transcript of a speech on the life of Natterer (1787–1843), who was for many years associated with the museum in Vienna and is known for his work with Brazilian birds.—H. C. M.
- STRESEMANN, E. 1957. Aus der Gründungsgeschichte des "Journal für Ornithologie." Journ. für Ornith., 98: 172–184.—On the founding of the J. f. O.; the exchange of letters between J. Cabanis and E. Baldamus.—H. C. M.

DISEASES AND PARASITES

- ASMUNDSON, V. S. and C. F. PUN. 1956. Crooked neck dwarf in the turkey. Journ. Exp. Zool., 131: 225–238.—Description of a lethal mutation resembling one known in the domestic fowl.—J. T. E.
- GROUPÉ, V., and F. J. RAUSCHER. 1957. "Nonviral" tumors produced in turkeys by Rous sarcoma virus. Science, 125 (3250): 694–695
- JENKINS, D. 1955. Causes of death in partridges. Bird Study, 2: 142–143.
- JENNINGS, A. R. 1955. Diseases in wild birds. Bird Study, 2: 69–72.
- JENNINGS, A. R., and E. J. L. SOULSBY. 1956. Diseases in wild birds, third report. Bird Study, 3: 270–272.
- MCGHEE, R. B. 1957. Infection of chick embryos by *Crithidia* from a phytophagous hemipteron. Science, 125 (3239): 157–158.
- OLSEN, M. W. 1956. Fowl pox vaccine associated with parthenogenesis in chicken and turkey eggs. Science, 124 (3231): 1078–1079.
- QUORTRUP, E. R., M. E. GOETZ, J. W. DUNSING, and M. N. ROSEN. 1957. Studies on the incidence of poultry diseases in wild ducks. Calif. Fish and Game, 43: 139–141.—Reports the results of serological tests on 651 wild ducks and 181 Coots. In the ducks, the incidence of salmonellosis was negligible, but 1/2% showed exposure to Newcastle disease. The Coots showed a relatively high exposure to *Salmonella typhimurium*, 4.9% giving a strong positive reaction.—F. M.
- ROSEN, M. N., E. R. QUORTRUP, M. E. GOETZ, and J. W. DUNSING. 1957. Studies on the incidence of poultry diseases in Coots. Calif. Fish and Game, 43: 143–146.—Serological tests on 862 Coots revealed a relatively high incidence of exposure to salmonellosis.—F. M.
- SCHINAZI, L. A. 1957. Observations on a fast-moving protein in avian malarial serum. Science, 125 (3250): 695–697.
- WILLIAMS, M. C. 1957. Birds in relation to the arthropod-borne virus zoonoses. Ibis, 99: 303–306.

DISTRIBUTION

- BORRERO, J. I., and J. H. CAMACHO. 1957. Notas sobre aves colombianas. Dos nuevas aves para la avifauna colombiana. Caldasia, 8 (35): 357–358.—First Colombian records for *Cinnycerthia unirufa chakei* (Sierra de Perijá, originally recorded as the nominate race) and *Dendroica pensylvania* (Oct. 23–Nov. 15; first reports from South America).—E. E.
- BOURNE, W. R. P. 1957. Additional notes on the birds of the Cape Verde Islands, with particular reference to *Bulweria mollis* and *Fregata magnificens*. Ibis, 99: 182–190.

- CAMPBELL, B. 1955. The breeding distribution and habitats of the Pied Flycatcher (*Muscicapa hypoleuca*) in Britain. Parts II and III. Bird Study, 2: 24-32, 179-191.—A British Trust for Ornithology Investigation. Distribution was discussed in Part I. The general biotope is highland valleys and foothills up to the tree limit. Favored habitats lack continuous shrub layer and field layer. Habitat requirements are food available upon arrival, protective cover, nest sites, (including nest boxes), perches for song, display and feeding sallies, nest materials, and continuing food supply. Absence from the Scottish Highlands may be due to a temperature barrier, or to deforestation-reafforestation sequences, and may be related to the northward spread of the Great Spotted Woodpecker. "Influxes" of flycatchers in 1864-6, 1885, 1898, 1899, and 1901 produced establishment in new areas. Since 1901 its spread has been gradual from established breeding areas.—M. T. M.
- EISENMANN, E. 1957. Notes on birds of the province of Bocas del Toro, Panama. Condor, 59: 247-262.—This is a report of birds observed during a five-day trip. In all, 85 species are mentioned of which thirteen represent new records for the province and one, the White-collared Seedeater, a new record for Panama.—D. W. J.
- ESCALANTE ROSSI, R. 1956. Nuevo hallazgos de la Pajera de Pico Recto en el Uruguay. Hornero, 10: 164-166.—Record of *Limnocittes rectirostris* (Gould) taken near Manantiales, 16 Km. east of Maldonado, Uruguay, in February, 1953. Colors of bill, iris, and feet are given.
- GLADKOV, N. A. 1957. Birds of Mangyshlak Peninsula (Caspian). Ibis, 99: 269-274.
- GODFREY, W. E. 1956. Some distributional notes on Canadian birds. Canad. Field-Nat., 70: 136-138.
- HAEDO ROSSI, J. A. 1956. Notas Ornitológicas I: Presencia del Piquero Pardo en la Argentina. Hornero, 10: 166-167.—Second record of *Sula leucogaster leucogaster* (Boddaert), taken in the Río de la Plata, July 11, 1952.
- JOHANSEN, H. 1957. Die Vogelfauna Westsibiriens. Journ. für Ornith., 98: 155-171.—Birds of western Siberia, Part III, Falconinae.—H. C. M.
- LEMIEUX, L. 1956. Seventh census of nonpasserine birds in the bird sanctuaries of the north shore of the Gulf of St. Lawrence. Canad. Field-Nat., 70: 183-185.
- LÓPEZ, R. B. 1956. La Paloma Antártica en Mar del Plata. Hornero, 10: 168.—10 Sheathbills (*Chionis alba*) observed July 9, 1954, at the port of Mar del Plata, Province of Buenos Aires; most northern record to date in Argentina.
- LUMSDEN, H. G. 1957. A Snow Goose breeding colony in Ontario. Canad. Field-Nat., 71: 153-154.—More than 1,000 Snow Geese (*Anser caerulescens*) were found breeding on Cape Henrietta Maria in 1956.—R. W. N.
- MCATEE, W. L. 1957. Early notes on Carolina birds. Chat, 21: 31-37, 50.
- MC EWEN, E. H. 1957. Birds observed at Bathurst Inlet, Northwest Territories. Canad. Field-Nat., 71: 109-115.
- NISBET, I. C. T. 1955. Bewick's Swans in the Fenlands: The past and present status. British Birds, 48: 533-537.—Since 1938 *Cygnus bewickii* has begun to winter regularly in East Anglia. Numbers have increased. It is suggested that a movement in the latter part of the winter through Scotland, to Ireland, has shifted southward and that birds from Holland find fen conditions favorable and remain there.—M. T. M.
- OLIVARES, A. 1957. Aves de la costa del Pacifico, municipio de Guapi, Cauca, Colombia. I. Caldasia, 8 (35): 359-381.—First introductory section of an article on the birds of an area on the Pacific coast of Colombia.—E. E.

- PAYNTER, R. A., JR. 1957. Rough-winged Swallows of the race *stuarti* in Chiapas and British Honduras. *Condor*, **59**: 212-213.
- PAYNTER, R. A., JR. and M. ALVAREZ DEL TORO. 1957. Blue and White Swallow in Mexico. *Condor*, **59**: 268.
- PEITZMEIER, J. 1957. Zur neuesten Diskussion des nordwesteuropäischen Misteldrossel-Problems. *Journ. für Ornith.*, **98**: 145-154.—Discusses the recent range extensions of the Mistle-thrush into northwest Europe.—H. C. M.
- PORTER, R. D., and J. B. BUSHMAN. 1957. Characteristics and status of the Solitary Sandpiper in Utah. *Condor*, **59**: 203-206.—In a study of ten specimens of *Tringa solitaria*, the race *solitaria* is known from Utah by a single specimen taken in the fall, whereas *cinnamomea* has been taken once in the spring and several times between July 9 and September 13. No nest has been found for this species in the state.—D. W. J.
- REED, E. B. 1956. Notes on some birds and mammals of the Colville River, Alaska. *Canad. Field-Nat.*, **70**: 130-136.
- SCOTT, P. 1955. Ring-necked Duck in Gloucestershire: A new British Bird. *British Birds*, **48**: 377.—A wild *Aythya collaris* appeared at the Wildfowl Trust collection at Slimbridge on March 12, 1955 and stayed three days. It is the first authentic record for Europe; however an 1801 record appears acceptable.—M. T. M.
- SMITH, K. D. 1957. An annotated check list of the birds of Eritrea. *Ibis*, **99**: 1-26; 307-337.
- SOPER, J. D. 1957. Notes on wildfowl of Slave River delta and vicinity, Northwest Territories. *Canad. Field-Nat.*, **71**: 74-81.
- STAFFORD, J. 1956. The wintering of Blackcaps in the British Isles. *Bird Study*, **3**: 251-257.—An average of 25 records each winter of *Sylvia atricapilla*. Possible foods eaten by this insectivore in winter are discussed. Females predominated in northern records. Early migration in February is discussed as a possibility. There is a slight, but definite northward movement within the country from December onward.—M. T. M.
- TENER, J. S. 1956. Annotated list of birds of part of the Back River, N. W. T. *Canad. Field-Nat.*, **70**: 138-141.
- URBAN, E. K. 1957. Birds observed at Resolute Bay, Cornwallis Island, Northwest Territories. *Passenger Pigeon*, **19**: 73-75.
- WATSON, A. 1957. Birds in Cumberland Peninsula, Baffin Island. *Canad. Field-Nat.*, **71**: 87-109.—A thorough study of the bird-life from May to September 1953 with data on several aspects of bird-biology.—R. W. N.
- WELTY, C. 1957. The geography of Birds. *Scientific American*, **197**(1): 118-128.—A popular account of bird distribution presenting many of the factors responsible and examples of the birds they influence.—J. C. H.
- WETMORE, A. 1957. The birds of Isla Coiba, Panamá. *Smiths. Misc. Coll.*, **134**, no. 9: 1-105.—Wetmore collected for a month on Coiba, the largest island off the Pacific coast of Central America, with results which are of general zoogeographic interest. Though Coiba is but 15 miles from the mainland, four endemic races had previously been recorded, and Wetmore describes sixteen more: *Centurus rubricapillus subfuscus*, *Cranioleuca vulpina dissita*, *Thamnophilus doliatus eremnus*, *Contopus cinereus aithalodes*, *Camptostoma obsoletum orphnum*, *Leptopogon amaurocephalus idius*, *Troglodytes aedon carychrous*, *Poliophtila plumbea cinerica*, *Hylophilus flavipes xulhus*, *Parula pitayumi cirrha*, *Basileuterus delatirii actuosus*, *Thraupis virens cumatilis*, *Ramphocelus*

dimidiatus arestus, *Saltator albicollis scotinus*, *Tiaris olivacea ravida*, *Arremonops conirostris viridicata*. The *Cranioleuca* is a species previously known only from South America east of the Andes. Other species new to Panama are *Laterallus exilis* and *Larus heermanni* (a sight record of a species hitherto unreported south of Guatemala). Of the 133 forms recorded from Coiba, 97 are believed to be breeding species, which means that over 20% of the residents are endemic races. Nevertheless all the land birds (except *Cranioleuca vulpina*) are species common on the adjacent mainland. A curious feature of Coiba is that, despite being almost wholly forested, the passerines consist almost entirely of birds which, on the mainland, are generally found in fairly open areas or "edge" situations. On Coiba many of these species live also in the canopy of the highest forest trees—a niche occupied on the mainland by species absent from Coiba. Despite an abundance of suitable forest habitat, missing from Coiba are many of the characteristic neotropical families and genera. Either these groups had not yet reached the adjacent mainland at the time that Coiba became an island, or the habitat was then (or for some period became) unsuitable. In addition to listing the birds known from Coiba and observed on trips to and from that island, the paper contains valuable notes on behavior, breeding, ecology, taxonomy, and nomenclature. Each species is supplied with a Spanish and an English name, the former drawn, when available, from the local vernacular, the latter according in the main with "The Species of Middle American Birds."—E. E.

WILLIAMS, R. J. 1957. The Great Blue Heron colonies of Wisconsin. *Passenger Pigeon*, 19: 51-66.

WILLIAMSON, K., and V. M. THOM. 1955. Hudsonian Whimbrel at Fair Isle. *British Birds*, 48: 379-381.—A single *Numenius phaeopus hudsonicus* from 27-31 May 1955—the first British record of this race. Suitable conditions for transatlantic drift existed in the previous four days. *N. p. hudsonicus* lacks the white rump of the European race, and might deserve specific rank were it not for an Asiatic race with a barred rump. The rump probably has significance in courtship display, as in the Curlew, and ethological studies are called for.—M. T. M.

ECOLOGY AND POPULATION

BOYD, H. 1957. Mortality and kill amongst British-ringed teal *Anas crecca*. *Ibis*, 99: 157-177.—Analysis of 11,500 banded teal showed that female losses exceeded male losses (mean annual survival rate, ♂ ♂, 0.507; ♀ ♀, 0.430). The proportion killed by man seems to be greatly exaggerated in reported causes of death. Deaths in a summer are inversely proportional to deaths in a preceding winter.—R. F. J.

BOYD, J. M. 1956. Fluctuations of Common Snipe, Jack Snipe and Golden Plover in Tiree, Argyllshire. *Bird Study*, 3: 105-118.—The game record of the Tiree Estate was analyzed for *Capella gallinago*, *Lymnocyrtes minimus*, and *Pluvialis apricaria*. The considerable limitations of these data are discussed. Common Snipe were very abundant in 1911-14 and again in 1945-47. Troughs occurred in 1929-30 and 1952-54. For Jack Snipe the trends are similar, but the decline appears to be more sudden and the build up slower. Fluctuations in Golden Plover numbers are much less. Monthly fluctuations and weather are discussed.—M. T. M.

BURTON, J. F. 1956. Report on the National Census of Heronries 1954. *Bird Study*, 3: 42-73.—A publication based on the B.T.O. census. Changes in the population of a bird species in Great Britain are better known for *Ardea cinerea* than any other. The total population was censused in 1928, and again in 1954. Be-

- tween these dates an Index has been calculated each year from an annual sample census. The Heron has increased considerably since 1928, especially in Wales. In England and Wales there were 4,708 nests in 301 heronries.—M. T. M.
- CHURCH, H. F. 1956. The Mute Swan population of the eastern Borders. *Bird Study*, 3: 212-217.—*Cygnus olor* has evidently been increasing in Northumberland in the last 40 years. There is a seasonal movement between the lower Tweed valley (summer) and coastal flats (winter). The summer population on the estuary consists of non-breeders. This swan may not breed until its fourth or fifth year. M. T. M.
- FRITH, H. J. 1957. Breeding and movements of wild ducks in inland New South Wales. *C. S. I. R. O. Wildlife Research*, 2: 19-31.—A semi-arid climate with local and temporary flood conditions has led to the development of irregular movement patterns and breeding seasons. Some species are sedentary and have regular breeding seasons while others are nomadic and breed whenever and wherever conditions are suitable. Individuals of the same species may be sedentary or nomadic.—F. M.
- GILLHAM, M. E. 1956. Feeding habits and seasonal movements of Mute Swans on two South Devon estuaries. *Bird Study*, 3: 205-212.—Use by *Cygnus olor* of four habitat types were distinguished: salt marsh turf (used in spring and early summer); salt water near mouth of river—*Zostera* (used in late summer and early winter, when land vegetation is mature and coarse); fresh water marsh turf (used in winter and early spring); fresh water above weirs (used in winter). Botanical studies of the considerable effects of grazing are being conducted.—M. T. M.
- JONES, N. G. B. 1956. Census of breeding Canada Geese 1953. *Bird Study*, 3: 153-170.—A Trust-aided investigation of the British Trust for Ornithology. The total population of feral *Branta canadensis* in Britain was between 2,600 and 3,600 in July 1953, distributed in isolated subpopulations. The birds are sedentary, and many suitable waters have evidently not been colonized because they have not been visited by the geese. Social behavior leading to splitting of the original herd is described. This is an important paper for American students of geese, for its bearing on the matter of "tradition" in waterfowl is fundamental. "The migration appears not to be inherited." Human control measures are described, and usually have worse effects than no controls at all.—M. T. M.
- LOCKIE, J. D. 1955. The breeding habits and food of Short-eared Owls after a vole plague. *Bird Study*, 2: 53-69.—There was a plague of *Microtus agrestis* in the Carron valley, Scotland in 1952-53. The study was made in 1954. Owls (*Asio flammeus*) were strongly territorial. Predation on eggs and young of owls by foxes and crows was heavy. It seems possible that owls and other predators hastened the decline in the numbers of voles early in the spring. But the failure of the voles to increase later in the summer was probably due to other factors.—M. T. M.
- SUMMERS-SMITH, D. 1956. Mortality of the House Sparrow. *Bird Study*, 3: 265-270.—*Passer domesticus* in Britain seldom move more than a few hundred yards from the nest at any time in the year, but corpses are seldom found. Results of watching known birds and of analyzing banding returns are used in this survey 54% of the adult mortality occurs during only one-third of the year (Apr.-July). Since corpses are hard to find in grain fields, visited in August, the marked birds disappearing probably gives the best estimate for this month. On this basis 71% of the adult birds die in five months (Apr.-August). When feeding young greater risks are taken and adults are exposed to predation and disease in summer.

- Average adult mortality is low by comparison with other species, owing to good food supplies all year round, and to lack of migrational hazards.—M. T. M.
- VON SCHWEPPEBURG, G. 1957. Hohлтаuben und Marder. *Journ. für Ornith.*, **98**: 185–189.—Fluctuation of a population of Stock Doves (*C. oenas*) and its relationship to Martens (*Martes foina* and *M. martes*).—H. C. M.
- WATSON, A. 1957. The behavior, breeding, and food-ecology of the Snowy Owl *Nyctea scandiaca*. *Ibis*, **99**: 419–462.—Observations were made on the Cumberland Peninsula, Baffin Island. Much information on food intake and growth of young and the impact on rodent (mostly *Lemmus*) populations by pairs of breeding owls is given.—R. F. J.
- YAPP, W. B. 1955. A classification of the habitats of British birds. *Bird Study*, **2**: 111–121.—A comprehensive classification of the habitats of British birds based on the vegetational background. In view of current American attempts to define standard terms for use by cooperative studies such as nest record schemes and faunistic surveys, Mr. Yapp's classification should be widely read.—M. T. M.
- YAPP, W. B. 1956. The theory of line transects. *Bird Study*, **3**: 93–104.—A line transect may be used to determine the density of animals or plants by means of a formula which is given, derived, and explained.—M. T. M.
- YAPP, W. B. 1956. The birds of high-level woodlands. The breeding community. *Bird Study*, **3**: 191–204.—Timberline is now at 1000–1500 ft. in England and Wales, rather higher in the Central Highlands of Scotland. The woodlands near this altitude are generally 90% pure *Quercetum*, *Betuletum*, *Alnetum*, *Fraxinetum*, or *Pinetum*. Line transects were used. 24 breeding species of bird are characteristic of these woods. Densities of birds were greatest in English and Welsh birchwoods, and in ashwoods. *Pinetum* was poorest in birds. Comparison with similar lowland communities of each type showed no difference except in the case of birch. About half the species are found in most woods. *Carduelis flammea* is almost exclusively a bird of birchwoods. Other species are characteristic of *Quercetum petraeae* or are tree-heath species which have invaded the woods. Absent species are ones needing shelter or a thick shrub layer.—M. T. M.

EVOLUTION AND GENETICS

- ABBOTT, U. K., and V. S. ASMUNDSON. 1957. Scaleless, an inherited ectodermal defect in the domestic fowl. *Journal of Heredity*, **47** (2): 63–70.
- ASMUNDSON, V. S. 1955. Inheritance of spotting in the plumage of turkeys. *Journal of Heredity*, **46** (6): 285–288.
- ASMUNDSON, V. S., and L. M. JULIAN. 1956. Inherited muscle abnormality in the domestic fowl. *Journal of Heredity*, **47** (5): 248–252.—Most of the muscles of the body are affected and the muscle changes resemble those occurring in human muscular dystrophies. The condition results from a recessive gene. Heterozygotes are somewhat affected.—J. C. H.
- MILLER, A. H. 1956. Ecologic factors that accelerate formation of races and species of terrestrial vertebrates. *Evolution*, **10**: 262–277.—The environment acts in speciation through inducing cyclic changes in population size. Low levels in population size permit genetic drift to play an important role in providing new combinations. The more frequent such fluctuations the faster a better gene combination will be reached under the influence of selection pressure. Continental areas of contrasting topography and hydrogradients are particularly important in race formation. Here population differentiates may be close together yet exist

- in distinctive environments. Periodic geologic and ecologic rifts in the barriers separating such allopatric population units bring about introgressive contacts. Such new population contacts may result in favorable adaptive and compatible gene complexes for races and the allopatric semispecies already attained can yield species with important phyletic futures through testings under rigorous continental selection. Polytypic variation is favored in species having moderate innate ecologic tolerances rather than very broad or sharply restricted ones. Thus *Passerella iliaca* a strongly polytypic species has moderate ecological tolerances that have permitted it to move into new regions and habitats. These have put its pioneer population segments under new selective pressures. *Passerella lincolnii* is a species with very narrow ecological tolerances and it is divided into only three races despite its occupancy of a range comparable in extent to that of *P. iliaca*. *Carpodacus mexicanus* has very wide ecological tolerances with the result that the selective pressures it encounters are not sufficient to bring about strong polytypic variation.
- J. C. H.
- MILLER, W. J. 1956. The hybrid-substance of the erythrocytes of the hybrids between *Columba livia* and *Streptopelia risoria*. *Genetics*, 41 (5): 700-714.—“The blood cells of hybrids between the domestic pigeon, *Columba livia*, and the ring neck dove, *Streptopelia risoria*, possess a ‘hybrid-substance.’ That is, they possess a serological reactivity not present in cells of either parent.” (Author’s summary.)
- SAVILE, D. B. O. 1957. Adaptive evolution in the avian wing. *Evolution*, 11: 212-224.—The aerodynamic aspects of the wings of birds are discussed. Four wing types are recognized: the elliptical, adapted to operate where space is limited; the high-speed wing of birds that feed on the wing or make long migration flights; the high-aspect-ratio wing of oceanic soaring birds; and the slotted high-lift wing of terrestrial soaring birds and predators that carry heavy loads. Similar wings occur in birds which are not genetically closely related. The loon has the highest wing loading and is stated to have the primitive avian wing form.—J. C. H.
- SCHENBERG, S. L. 1956. Genetic studies of cellular antigens in the chicken. *Genetics*, 41 (6): 834-844.
- SHAKLEE, W. E., and C. W. KNOX. 1956. Selection for thyroid weight in New Hampshire chickens. *Journal of Heredity*, 47 (5): 211-212.
- SIBLEY, C. G. 1957. The evolutionary and taxonomic significance of sexual dimorphism and hybridization in birds. *Condor*, 59: 166-191.—This significant paper emphasizes the roles of sexual dimorphic characters and hybridization in speciation processes in birds. In attempting to establish relationships among avian taxonomy, hybridization, and sexual dimorphism, the author investigates at length the evolutionary significance of secondary sexual characters in several groups of birds: birds of paradise, hummingbirds, pheasants, grouse, manakins, and ducks. The discussion and summary are quite provocative.—D. W. J.
- SOUTHERN, H. N. 1957. A study in the evolution of birds. *Scientific American*, 196 (5): 124-134.—A popular account of polymorphism in birds. Brief comment is made on the polymorphism found in the Red Crossbill, certain species of hawks, some jaegers, the Skua, owls, the Caribbean Sugarbird, the Gouldian Finch, and the cuckoo. More extended remarks concern the frequencies of bridled and non-bridled Common Guillemots (*Uria aalge*) along the Atlantic coast of Europe. The bridled color phase is increasingly common toward the North; it is not found in colonies in Portugal and attains its greatest frequency (50%) in Iceland. The frequency of the bridled color phase was first determined in 1938 and 1939; another determination being made 10 years later. The frequency of the bridled color

phase (with one exception) declined in every area where a significant change occurred. The suggestion is made that the bridled phase is better adapted to colder climates and its decrease results from a trend towards a warmer climate.—J. C. H.

WILLIAMSON, M. H. 1957. Polymorphism in Ross's Goose *Anser rossii*, and the detection of genetic dominance from field data. *Ibis*, **99**: 516–518.—Dimorphic young of Ross's Goose occur in broods the analysis of which supports the assumptions that the dimorphism is controlled by one pair of alleles, that the genotypes occur in the ratio $p^2 : 2pq : q^2$, and that mating is at random; in this instance, however, the further assumption that yellow down is dominant to gray down is as good as assuming the exact opposite.—R. F. J.

GENERAL BIOLOGY

AIREY, A. F. 1955. Whooper Swans in southern Lakeland. *Bird Study*, **2**: 143–150.—Winter studies of *Cygnus cygnus* in north-west England. Routes and flight lines, territory, greeting and sex display, molting, head and neck plumage staining, upending for food, and preening are discussed. The distribution and composition of flocks, and local weather movements are described.—M. T. M.

ALEXANDER, H. G. 1955. Field-notes on some Asian Leaf-warblers. *British Birds*, **48**: 293–299, 349–356.—The genus *Phylloscopus* is a Palearctic group of some 30 species and 67 races, and includes some of the most difficult species to identify in the field. The genus was the subject of a monograph by C. B. Ticehurst (1938). This paper adds considerable further detail and comment on species of *Phylloscopus* and also on *Hippolais*, *Locustella*, and *Acrocephalus*.—M. T. M.

BEHLE, W. H. and W. A. GOATES. 1957. Breeding biology of the California Gull. *Condor*, **59**: 235–246.—In an attempt to complete extant data on life history and reproduction in this species, the authors report on details of early breeding biology: egg laying and incubation, growth of young, temperature regulation in young, mortality, and nesting success. Of interest was the fact that the first eggs laid required 26.7 days of incubation, the second 25, and the third 23.6 days. The interval between laying of eggs was also about two days. Young one or two days old have some temperature regulating capacity which improves with age. Reproductive success (eggs and young) was about 60%.—D. W. J.

Bó, N. A. 1956. Observaciones Morfológicas y Etiológicas sobre el Biguá. *Hornero*, **10**: 147–157.—Notes on plumage changes, form of stomach, food, general habits, and nesting of the cormorant *Phalacrocorax brasilianus brasilianus* (Gmelin) in Argentina.

COULSON, J. C. 1956. Mortality and egg production of the Meadow Pipit with special reference to altitude. *Bird Study*, **3**: 119–132.—A publication based on the nest record card and banding schemes of the British Trust for Ornithology. Breeding is later in *Anthus pratensis* as altitude increases, one day for every 130 ft. Clutch size was 0.45 egg lower at 1000 ft. than it was at sea level. As altitude increased total nest predation decreased. The relation between these facts is discussed.—M. T. M.

CRAMP, S. 1955. The breeding of the Willow Warbler. *Bird Study*, **2**: 121–135.—A publication of the British Trust for Ornithology Nest Record Scheme, on *Phylloscopus trochilus*. Statistics of breeding season, clutch size, incubation and nestling periods, and hatching and nestling success are given.—M. T. M.

CRINGAN, A. T. 1957. Notes on the biology of the Red-necked Grebe in western Ontario. *Canad. Field-Nat.*, **71**: 72–73.

- CULLEN, E. 1957. Adaptations in the Kittiwake to cliff-nesting. *Ibis*, **99**: 275-302.—A comparison of the ecology and behavior of the cliff-nesting *Rissa tridactyla* with that of ground-nesting gulls shows that some characteristics of ground-nesting gulls have been lost in the Kittiwake, probably because of relaxed predation on the cliffs; additionally, many new adaptations can be seen in the Kittiwake and these clearly seem useful in cliff-nesting.—R. F. J.
- CURIO, E. 1957. Austausch zweier ungleichaltriger Brutten des Trauerschnäppers (*Muscicapa h. hypoleuca* Pallas). *Journ. für Ornith.*, **98**: 190-194.—Experimental exchange of nestlings of the Pied Flycatcher with a brood of different age. English summary.—H. C. M.
- DAVIES, S. J. J. F., and C. H. F. ROWELL. 1956. Observations on the Redwing in Swedish Lapland. *Bird Study*, **3**: 242-248.—*Turdus musicus* were breeding commonly in the Selkavaare area of acid-heath-birch-forest, and among scattered birches. Intensive observations were made at one nest containing young.—M. T. M.
- DEMENTIEV, G. P. 1957. On the Shaheen *Falco peregrinus babylonicus*. *Ibis*, **99**: 477-482.—Remarks on the morphology and general biology of *F. peregrinus* in Turkestan.—R. F. J.
- DIXON, J. B., R. E. DIXON, and J. E. DIXON. 1957. Natural history of the White-tailed Kite in San Diego County, California. *Condor*, **59**: 156-165.—In southern California observations have been made of this species for more than twenty years during which time 130 occupied nests have been studied in 35 different localities. This report embodies data on food, nesting, incubation, young, hunting, and roosting. The principal food is *Microtus californicus*; usually four eggs are laid between February and July with the female alone incubating; the male catches food for the female and young; roosts of nonbreeding birds may contain as many as 39 kites.—D. W. J.
- GOODBODY, I. M. 1955. The breeding of the Black-headed Gull. *Bird Study*, **2**: 192-199.—Clutch size was higher at the second colony which completed laying about nine days after the first colony.—M. T. M.
- HARTMAN, F. A. 1957. Some additions to nesting data on Panamanian birds. *Condor*, **59**: 269-271.—Four species are discussed.
- KOENIG, L. 1956. Zum Vorkommen einiger Spinte zwischen Tesselit und Niamey (Französisch-Westafrika). *Journ. für Ornith.*, **97**: 384-402.—Ecology and behavior of the Bee-eaters (*Meropidae*) of French West Africa.—H. C. M.
- MYRES, M. T., and D. W. SNOW. 1955. The breeding of Blackbird, Song Thrush and Mistle Thrush in Great Britain, Parts I-III. *Bird Study*, **2**: 2-24, 72-84, 169-178.—This is one of a number of reports on material collected by the British Trust for Ornithology Nest Record Scheme. The survey is made on 9500 nests of three species. Information on the breeding season, clutch size, and nesting success is minutely analyzed by stages of the season, regions of the country, and in relation to weather changes. Differences in the breeding biology of the two main species are discussed.—M. T. M.
- OWEN, D. F. 1956. The food of nestling Jays and Magpies. *Bird Study*, **3**: 257-265.—The plastic collar method of collecting food samples was used. Lepidopterous larvae, Diptera, Coleoptera, and spiders were the chief food of nestling Jays. *Garrulus glandarius* get food for their young from leaves of deciduous trees instead of the forest floor which they use at other times. *Pica pica* continued to feed on the ground while they had young, but lepidopterous larvae, fallen from the trees, predominated as with Jays. For comparison with other species see Lockie (1955, *Ibis*, **97**: 341-369).—M. T. M.

- PEREYRA, J. A. 1956. Notas Biológicas sobre el Corbatita Común. Hornero, 10: 140-142.—Observations on nesting of *Sporophila caerulea caerulea*, and on molt and color in captive adult and immature males. The cup-shaped nest, placed low in bushes or weeds, contains 2 to 4 eggs.
- PLÓTNICK, R. 1956. Original comportamiento de un Caburé. Hornero, 10: 171-172.—A clutch of 4 eggs of the small owl *Glaucidium nanum* King, found in an abandoned nest of the Hornero, *Furnarius rufus*; the female owl remained in the cavity when it was opened for observation.
- ROBINSON, T. S. 1957. Notes on the development of a brood of Mississippi Kites in Barber County, Kansas. Trans. Kansas Acad. Sci., 60, 174-180.—Location of nest, incubation, care of nest, growth of young, and food are described.
- ROBSON, R. W. 1956. The breeding of the Dipper in North Westmorland. Bird Study, 3: 170-180.—This paper describes subsidiary data collected during an ambitious four-year study of marked *Cinclus cinclus*. Population is higher in sandstone than limestone areas. Movements of five marked birds are described. 23 territories were measured. Of 37 nest sites, 22 were near human habitation. Over half of the nests were occupied two years running. Laying dates, clutch-size, breeding success, and mortality rate are given.—M. T. M.
- ROLLIN, N. 1957. Incubation by drake Wood Duck in the eclipse plumage. Condor, 59: 263-265.
- SKUTCH, A. F. 1957. Life history of the Amazon Kingfisher. Condor, 59: 217-229.—This is another of Skutch's excellent compilations of life history on tropical and subtropical birds. It contains details of food, voice, nest site, eggs, incubation, nestlings, and bathing. Similarities and differences are indicated between this form (*Chloroceryle amazona*) and other kingfishers.—D. W. J.
- STEBBINS, R. C. 1957. A further observation on torpidity in the Poor-will. Condor, 59: 212.
- WESTERSKOV, K. 1956. Incubation temperatures of the Pheasant, *Phasianus colchicus*. Emu, 56: 405-420.—Measurements were made by the use of potentiometers in three nests. The temperature of the bare brood-patch is 39.5° C. Air temperatures at the top of the eggs under the sitting hen rise slowly from 33° to 36° C (mean 35.1° C) during the incubation period. Air temperatures at the bottom of the eggs rise from 23° C to 26-27° C (mean 25° C), but are affected greatly by ground temperatures. The hen leaves the nest for about one hour each day, when the nest temperature drops to that of the atmosphere. The eggs are turned once an hour on an average during incubation.—F. M.
- ZUBERBÜHLER, E. 1956. Dos nidos en situación anómala. Hornero, 10: 175.—A nest of the Calandria, *Mimus saturninus*, on the ground; and one of the Misto, *Sicalis luteola*, built on an abandoned nest of the Chingolo, *Zonotrichia capensis*.

MANAGEMENT AND CONSERVATION

- ANDERSON, W. 1957. A waterfowl nesting study in the Sacramento Valley, California, 1955. Calif. Fish and Game, 43: 71-90.—Nine study plots, in different sections of the valley, yielded data on 333 duck nests (mostly Mallard). Of these nests, 38.4% hatched, 9.3% were deserted, and 52.3% were destroyed. Predation by mammals was the main cause of nesting losses. Data are presented for 150 Coot nests of which predators took 54.3%. Predator control by means of poison is suggested as a means of increasing duck production.—F. M.
- EDITORIAL. 1955. Birds and nature reserves in Great Britain. British Birds, 48: 517-522, (also 539-541).—A list of reserves of ornithological interest which will be

- useful to visitors. The different implication of the word "conservation" in a crowded European country such as Britain becomes clear in the discussion of some of the current problems. The fundamental research which is the primary concern of the government Nature Conservancy is made plain.—M. T. M.
- FRITH, H. J. 1957. Wild ducks and the rice industry in New South Wales. C. S. I. R. O. Wildlife Research, 2: 32-50.—Grey Teal (*Anas gibberifrons*), Black Duck (*A. superciliosa*), and Wood Duck (*Chenonetta jubata*) cause some damage to rice crops. The food and feeding habits of these species are described and their economic significance is assessed in relation to climatic conditions, local movements, and rice-growing. On the whole, wild ducks are thought to be a minor pest to the rice-growing industry. The value of shooting and the importance of cultivation practices are discussed.—F. M.
- HILDEBRAND, M. 1957. Determining the sex of dressed pheasants. Calif. Fish and Game, 43: 131-137.—To enforce certain game laws, methods of sexing dressed birds are necessary. When urogenital structures are not present, any one of five bone measurements will almost always prove diagnostic.—F. M.

MIGRATION AND ORIENTATION

- BROWN, R. G. B. 1955. The migration of the Coot in relation to Britain. Bird Study, 2: 135-142.—Little is known about the migration of the common species *Fulica atra*. However in Europe there is a NE-SW standard direction in the fall, and some birds from the Continent winter in England. It is not known if British bred Coots ever travel to the Continent.—M. T. M.
- CORNWALLIS, R. K. 1955. The pattern of migration in 1954 at the east coast Bird Observatories. British Birds, 48: 429-446.—Fall migrants are drift migrants from the Continent, migrants from Greenland and Iceland, coastal passage migrants, and winter immigrants. Cyclonic drifts bring birds more frequently to the northern stations, possibly as these are islands with wide catchment areas. An unusual feature was that some cyclonic drifts originated on the west coast of Norway, rather than at the Skagerrak.—M. T. M.
- DAVIS, P., and WEAVING, J. 1955. Movements of certain species at the Irish Sea Bird Observatories in 1954. British Birds, 48: 523-532.
- GOLDSMITH, T. H., and D. R. GRIFFIN. 1956. Further observations of homing terns. Biol. Bull., 111: 235-239.—Terns from nesting colonies in Michigan and Massachusetts were liberated at an intermediate point at Cortland, New York. Both groups showed a tendency to head approximately southeast. Topography did not offer any apparent explanation for this orientation.—J. T. E.
- HICKEY, J. J. 1956. Autumnal migration of ducks banded in Eastern Wisconsin. Trans. Wisc. Acad. Sci. Arts and Letters, 45: 59-76.—An analysis of 1064 recovery reports of Mallards and a smaller number of ducks of other species banded at two stations in eastern Wisconsin showed a wide dispersal into the Canadian Provinces in spring. Large numbers wintered in Arkansas and Louisiana and a smaller number along the Atlantic Seaboard from Virginia to Florida.—J. T. E.
- KRAMER, G. 1957. Experiments on bird orientation and their interpretation. Ibis, 99: 196-227.—A review of the literature on bird orientation and a critical examination of the hypothesis of sun-arc navigation. The author believes the sun-arc hypothesis to be unjustified, but owns that no better explanation is as yet available.—R. F. J.
- KRAMER, G., and U.V.ST. PAUL. 1956. Weitere Erfahrungen über den "Wintereffekt" beim Heimfindevermögen von Brieftauben. Journ. für Ornith., 97: 353-370.—

- Comparison of essentially identical releases of homing pigeons show that performance is much poorer in winter. The authors do not believe this to be due to the changes in landmarks, decrease in homing "drive," or temperature. The reason for poor performance, and the orientation mechanism itself, remain unknown.—H. C. M.
- KRAMER, G., and U.V. ST. PAUL. 1956. Über das Heimfinden von Käfigtauben über Kurzstrecken. *Journ. für Ornith.*, 97: 371-376.—Pigeons which had spent their entire lives in an aviary were released at distances of 2.8 and 22 km. from home. The results were taken to indicate that these birds rely on some unknown system of orientation even at short distances.—H. C. M.
- LACK, D. 1955. The summer movements of Swifts in England. *Bird Study*, 2: 32-40.—Eighteen cases of summer movements of *Apus apus* are on record in England. Most were directed about SW into wind, and away from a depression. Movements ahead of thunderstorms are omitted. A decrease in airborne insects, or indirect weather signs may be the reason for such movements which have been reported from Fenno-Scandia, and also in British Columbia (*Nephoecetes niger*).—M. T. M.
- LACK, D. 1956. Seaward flights of Swifts at dusk. *Bird Study*, 3: 37-42.—Observations of *Apus apus* going out to sea at dusk on the east coast of England. These movements seem to be associated with weather movements, so that the birds seen were probably not local ones. A B.T.O. Enquiry is instituted.—M. T. M.
- MEWALDT, L. R., and D. S. FARNER. 1957. Translocated Golden-crowned Sparrows return to winter range. *Condor*, 59: 268-269.
- MILLER, A. H. 1957. Migratory flight of a *Zonotrichia* at 10,000 feet above ground level. *Condor*, 59: 209-210.
- MOREAU, R. E. 1956. The Iberian Peninsula and migration. *Bird Study*, 3: 1-25.—An important review of some 2000 banding recoveries in Spain and Portugal. With the exception of a tiny part of Spain, the whole area is west of the Greenwich Meridian, and birds have to fly SW. from their breeding areas to reach it. Birds passing on to tropical Africa anywhere east of Ghana must change direction upon leaving Iberia. Visible migration until recently was little known, but recent work by the Edward Grey Institute and others have increased our knowledge of this aspect of the problem. Some migrants move on a broad front, others are confined to west or east coasts. The hostile center of Spain seems to be avoided to a certain extent. Banding returns indicate that populations from different breeding areas may be concentrated on passage, or in winter, in different parts of the peninsula. There are some remarkable east-west movements in Europe. *Per contra* there is a considerable list of birds for which individuals marked on the continent have reached Iberia, whereas British-marked ones have not. There are large gaps in our knowledge.—M. T. M.
- MOREAU, R. E., and J. F. MONK. 1957. Autumn migration in southwest Portugal. *Ibis*, 99: 500-508.
- NISBET, I. C. T. 1957. Passerine migration in south Scandinavia in the autumn of 1954. *Ibis*, 99: 228-268.—Analysis of passerine migration in the Baltic-North Sea area indicates that these birds orient by day both by means of topographic features and position of the sun; by night there seems to be no true orientation, but nocturnal migrants seem to pick up position in the day-time following movement.—R. F. J.
- NISBET, I. C. T., and T. C. SMOUT. 1957. Autumn observations on the Bosphorus and Dardanelles. *Ibis*, 99: 483-499.—Observations on the migratory movements mainly of birds of prey.—R. F. J.

- PRECHT, H., *et al.* 1956. Einige Versuche zum Heimfindevermögen von Vögeln. Journ. für Ornith., **97**: 377-383.—A series of miscellaneous experiments, some of which seem to indicate that gulls will orient towards home while confined in a small circular cage in a closed building.—H. C. M.
- SPENCER, R. 1955. Report on bird-ringing for 1954. British Birds, **48**: 461-498.—Reports the banding in Great Britain in 1954 (102,858 birds were banded; Grand Total is now over 1¼ million). A select list of recoveries is given.—M. T. M.
- SVARDSON, G. 1955. Crossbills in Sweden in 1953. British Birds, **48**: 425-428.—Few *Loxia curvirostra* bred in 1953 and their behavior that spring was indicative of poor food supply. In August, passage of birds from the east was as great as in 1927, 1930, and 1935.—M. T. M.
- TUNMORE, B. G. 1956. The visual observation of night migration. Bird Study, **3**: 237-241.—Observations at Cambridge, of birds flying across the face of the moon at night. Lowery's (1951) methods of calculating compass bearings and the distribution of birds with altitude were found liable to error. Great Britain is generally too cloudy for such observations to be continuous.—M. T. M.
- WAGNER, H. O. 1957. The technical basis of experimental research on bird migration. Ibis, **99**: 191-195.—Discussion of methods used to demonstrate *Zugunruhe* in caged migratory birds.—R. F. J.

PHYSIOLOGY

- BARTHOLOMEW, G. A., T. R. HOWELL, and T. J. CADE. 1957. Torpidity in the White-throated Swift, Anna Hummingbird, and Poor-will. Condor, **59**: 145-155.—In this significant paper dealing with captive birds, the three species became torpid at about 2-3° C. (environmental temperature). Metabolic rate was considerably lower while the bird was torpid. Torpidity suggests energy conservation, and is related to hummingbirds' high metabolic rate when active and to survival of poor-wills and swifts when fasting.—D. W. J.
- BLOUGH, D. S. 1957. Effect of lysergic acid diethylamide on absolute visual threshold of the pigeon. Science, **126** (3268): 304-305.
- FISHER, H. I. 1957. Bony mechanism of automatic flexion and extension in the Pigeon's wing. Science, **126** (3271): 446.—Surgery was used to demonstrate that flexion and extension at the humeroulnar joint, through the action of the muscles of the upper arm, causes the same actions at the wrist.—J. C. H.
- HERRICK, E. H., and J. O. HARRIS. 1957. Singing female canaries. Science, **125** (3261): 1299-1300.—Females treated with male sex hormone (testosterone phenylacetate) sang in a manner indistinguishable from that of a male bird.—J. C. H.
- JENSEN, L. S., and W. E. MATSON. 1957. Enlargement of avian eye by subjecting chicks to continuous incandescent illumination. Science, **125**: (3251): 741.
- SCHJEIDE, O. A., and M. R. URIST. 1956. Proteins and calcium in serums of estrogen-treated roosters. Science, **124** (3234): 1242-1244.
- VÖLKER, O. 1957. Die Experimentelle Rotfärbung des Gefieders beim Fichtenkreuzschnabel (*Loxia curvirostra*). Journ für Ornith., **98**: 210-214.—Captive crossbills with yellow plumage resumed the normal red plumage when fed a diet containing rhodoxanthin, a pigment from the Yew (*Taxus baccata*).—H. C. M.
- WALL, R. L., and H. G. SCHLUMBERGER. 1957. Electrophoresis of plasma proteins in the parakeet. Science, **125** (3255): 993-994.
- WILSON, W. O., WOODARD, A. E., and H. A. B. PLANALP. 1956. The effect and after-effect of varied exposure to light on chicken development. Biol. Bull., **111**: 415-422.

TAXONOMY AND PALAEONTOLOGY

- BERGQUIST, H., and J. LEPIKSAAR. 1957. Medieval animal bones found in Lund. In, *Archaeology of Lund. Studies in the Lund excavation material. I*: 11-84.—Bones of goose, White-tailed Eagle, and a small variety of domestic fowl from sites dated from 1020 to 1400 A.D.
- GLADKOV, N. A. 1957. Der Rotkehlige Strandläufer (*Calidris ruficollis*) ist eine selbständige Art. *Journ. für Ornith.*, **98**: 195-203.—Argues that *C. ruficollis* is specifically distinct from *C. minuta*. Presents data on courtship, nesting, plumage of young, and care of young.—H. C. M.
- HALL, B. P. 1957. The taxonomic importance of variation in non-breeding plumage in *Aegithina tiphia* and *A. nigrolutea*. *Ibis*, **99**: 143-156.—Variation in the non-breeding plumage of these leafbirds necessitates naming of two new races (*A. t. deignani* and *A. t. cambodiana*).—R. F. J.
- HAVERSCHMIDT, F. 1956. Was ist *Melanerpes hargitti* Dubois? *Journ. für Ornith.*, **97**: 411-414.—The type of *M. hargitti* is actually an aberrant *M. cruentatus*.—H. C. M.
- KIPP, F. A. 1956. Progressive Merkmale des Jugendkleides bei den Spechten. *Journ. für Ornith.*, **97**: 403-410.—A phylogenetic study of the juvenal plumages of European Woodpeckers.—H. C. M.
- LEPIKSAAR, J. 1955. The bird remains from Vallhagar. In, *Vallhagar, a migration period settlement on Gotland, Sweden: 814-831.—17 species identified from one site, 11 from another, include the domestic fowl.*
- MOORE, R. T., and D. R. MEDINA. 1957. The status of the Chachalacas of western Mexico. *Condor*, **59**: 230-234.—A new subspecies, *Ortalis poliocephala lajuelae*, is described from Lajuela, Jalisco, Mexico. Based upon a study of specimens from western Mexico, the conclusion is reached that there should be four recognized forms of *Ortalis poliocephala: lajuelae, poliocephala, wagleri, and griseiceps*.—D. W. J.
- PARTRIDGE, W. H. 1956. Variaciones Geográficas en la Lechuza Negra, *Ciccaba huhula*. *Hornero*, **10**: 143-146.—Two subspecies are recognized. *C. h. huhula* (Daudin) is found from Colombia, Venezuela, and the Guianas south, east of the Andes, to Bolivia, Mato Grosso, Maranhão and Piauí, Brasil. *C. h. albomarginata* (Spix), larger and darker, of southeastern Brasil, is recorded for the first time in Argentina, in Misiones.
- PLÓTNICK, R. 1956. Posición Sistemática del género *Heterospizias*. *Hornero*, **10**: 136-139.—Form of sternum, coracoid, furcula, and pelvis show that this hawk should be removed from the subfamily Accipitrinae to the Buteoninae.
- PLÓTNICK, R. 1956. Afinidad entre los generos *Elanus* y *Gampsonyx* (Accipitridae, Aves). *Rev. de Investigaciones Agrícolas*, **10** (3): 313-315. Buenos Aires.—The affinities of the monotypic neotropical Pearl Kite, *Gampsonyx*, have been in dispute. Peters, followed by Hellmayr and Conover, placed it in the Falconidae; Friedmann, in agreement with most of the earlier systematists, allocated it to the Accipitridae, in the subfamily Elaninae. On the basis of a number of characters Plótnick reaches the same conclusion as Friedmann.—E. E.
- SNYDER, L. L., and E. D. LAPWORTH. 1953. A comparative study of adults of two Canadian races of Red-wings. *Canad. Field-Nat.*, **67**: 143-147.—An evaluation of the taxonomic characters of *Agelaius phoeniceus*, an exposition of their variability, and the determination of the geographic boundaries of two races in Ontario.—R. W. N.

- WETMORE, A. 1957. The classification of the Oscine Passeriformes. *Condor*, **59**: 207-209.—On the basis of skeletal material (head of the humerus) Corvidae resemble closely nonpasserine orders (Piciformes, for example), and should, therefore, not be placed near the end of an arrangement of passerine families.—D. W. J.
- WETMORE, A. 1957. A fossil rail from the Pliocene of Arizona. *Condor*, **59**: 267-268.—Description of a new species, *Rallus phillipsi*.

MISCELLANEOUS

- ANON. 1956. Bird Watching in Europe. *Bird Study*, **3**: 81-85, 228-229.—A helpful guide to persons, places, and books for intending visitors.—M. T. M.
- CAMPBELL, B. 1955. Ornithological Surveys of Nature Reserves, 1954. *Bird Study*, **2**: 84-86.—Reserves in England.—M. T. M.
- COULSON, J. C., and E. WHITE. 1955. Abrasion and loss of rings among sea-birds. *Bird Study*, **2**: 41-44 (see also **2**: 44-45, 98-100, 203).—Abrasion and corrosion of bird bands, especially in contact with salt water, may be more serious than suspected. It is suggested that bands be retained on recovery, so that they may be surveyed to determine rate of wear. Separate collections of old, as well as new, alloy types are necessary. Without such preliminary calculations life-tables based on returns will be worthless.—M. T. M.

Editor: The Auk—

I am collecting information on the predatory or piratical habits of all birds whether crows, shrikes, hawks, skuas, etc. and should be grateful for detail of any exceptional or remarkable cases which have been observed. I do not want anything relating to recognized or normal procedure. I hope to publish these records in book form later on. Full acknowledgement will be given to contributors.—COL. R. MEINERTZHAGEN, 17 Kensington Park Gardens, London, W.11, England.

ERRATUM

The Auk, 74 (3):

p. 307, l. 7. After "Walkinshaw" omit "(males)"