

## RECENT LITERATURE

EDITED BY FRANK MCKINNEY

### ANATOMY AND EMBRYOLOGY

- Bang, B. G. 1960. Anatomical evidence for olfactory function in some species of birds. *Nature*, **188**: 547-549.—*Cathartes aura*, *Steatornis caripensis*, *Diomedea immutabilis*, and *D. nigripes* possess large olfactory conchae, heavily innervated. Although some species (pigeons) are weakly endowed, all evidence indicates that olfactory perception is well developed in these and probably in many other species of birds.—H. C. S.
- Clark, G. A., Jr. 1961. Occurrence and timing of egg teeth in birds. *Wils. Bull.*, **73**: 268-278.—The presence of egg teeth in 51 families of birds is summarized with the available data on the time of their disappearance. Many references are cited.—J. T. T.
- Kuroda, N. 1960. Histological observation of the proventriculus of *Diomedea*. *Misc. Reports Yamashina's Inst. for Ornith. and Zool.*, **2** (15): 138-142.—Comparison (with photomicrographs) of the histology of the proventriculus of albatrosses with those of a petrel and a loon. In Japanese with English summary.—K. C. P.

### BEHAVIOR

- Allen, T. T. 1961. Notes on the breeding behavior of the Anhinga. *Wils. Bull.*, **73**: 115-125.—Pair formation, incubation, and territorial defense of *Anhinga anhinga*, as observed in Florida.—J. T. T.
- Borror, D. J. 1961. Songs of finches (Fringillidae) of eastern North America. *Ohio Journ. Sci.*, **61**: 161-174.—An analysis of the recordings of 43 species of finches, including figures of the sound spectrographs.—H. C. S.
- Driver, P. M. 1960. A possible fundamental in the behaviour of young nidifugous birds. *Nature*, **186**: 416.—The "brooding reflex," whereby the newly hatched duckling orientates itself to the position of optimum warmth and mechanical protection beneath the female, is described for a number of Anatidae. A state of rest or sleep could be released in the ducklings by providing a contact stimulus on both sides of the head.—H. C. S.
- Eisner, E. 1961. The behaviour of the Bengalese Finch in the nest. *Ardea*, **49**: 51-69.—By means of a nest box backed by a glass panel through which observations could be made from a darkened hide, detailed information was obtained on incubation, hatching, brooding, feeding of young, and nest sanitation of the estrildine *Lonchura striata*. Such information as to what happens within the nest would be difficult to obtain in the wild, as the nest is closed.—E. E.
- Harrison, C. J. O. 1961. Reaction of nesting Blue-winged Parrotlets *Forpus passerinus* to a wasp. *Ibis*, **103a**: 289.—The parrots threatened the wasp, near the birds' nest cavity. This is probably a valuable reaction in the tropics where there must be more competition between birds and insects for cavity nest sites.—J. W. H.
- Jenkins, D. 1961. Social behaviour in the partridge *Perdix perdix*. *Ibis*, **103a**: 155-188.—A detailed study of the species. Discussion of social behavior concerns agonistic behavior and other behavior not having to do with interaction (such as feeding). Activities such as preening and resting might be classed under either category but were considered displacement behavior in most cases and placed under the first category. An index to measure proportions of time spent feeding, courting, and (inversely) amount of interaction under different circumstances is presented. Behavior in different environments is compared. Degree of interaction varies with

- density of population and cover as follows: there is less interaction at low density and where ground cover prevented birds from seeing each other. Home ranges are small and do not overlap in good cover; home ranges are large and overlap when density is high and cover poor. Interaction is low in good cover regardless of high population density. When cover is poor, interaction is high even if population density is fairly low. Relation of agonistic behavior to dispersion and population control is discussed. The higher the adult interaction, the higher the chick mortality, according to work in two summers.—J. W. H.
- Johnsgard, P. A. 1961. The sexual behavior and systematic position of the Hooded Merganser. *Wils. Bull.*, **73**: 227–236.—The courtship and copulatory behavior of *Mergus cucullatus* are described and illustrated. Probable homologies are indicated with other *Mergus* species and with *Bucephala*. This species provides an almost perfect connecting link between *Bucephala* and *Mergus*, and it is concluded that these two groups are no more than generically distinct.—J. T. T.
- Kilham, L. 1961. Reproductive behavior of Red-bellied Woodpeckers. *Wils. Bull.*, **73**: 237–254.—Observations of *Centurus carolinus*, including a pair that nested in captivity, are recorded in detail, from nest-cavity construction to after fledging.—J. T. T.
- KURODA, N. 1960. An essay on bird territoriality. Misc. Reports Yamashina's Inst. for Ornith. and Zool., **2** (15): 133–137.—An attempt to classify types of territoriality according to the relationship between feeding habits (especially abundance of available food) and nesting habits. It is suggested that the "incipient stage" of territoriality is the defense of mobile young in open-ground nesters, as certain waders. In English.—K. C. P.
- Lawson, W. J. 1961. Probable courtship behaviour of the Broadbill *Smithornis capensis*. *Ibis*, **103a**: 289–290.
- Lehrman, D. S., P. N. Brody, and R. P. Wortis. 1961. The presence of the mate and of nesting material as stimuli for the development of incubation behavior and for gonadotropin secretions in the Ring Dove (*Streptopelia risoria*). *Endocrin.*, **68**: 507–516.—Gonadotropin activity in the female is stimulated by presence of a male and augmented by presence of nesting material. Preparation for incubation enhanced in both male and female by presence of a mate.—H. C. S.
- Marler, P., and D. Isaac. 1961. Song variation in a population of Mexican Juncos. *Wils. Bull.*, **73**: 193–206.—Songs of *Junco phaeonotus* were recorded in the field and analyzed by sonograms. Songs of this species are varied; the nature of the variation is discussed.—J. T. T.
- SIMMONS, K. E. L. 1961. Problems of head-scratching in birds. *Ibis*, **103a**: 37–49.—Scratching methods are described and classified. Basic scratching (response to irritation) is distinguished from extended scratching (used in feather maintenance). Indirect scratching may be a displacement activity in some species. Contrary to Heinroth's view, the author believes that the indirect method is the more primitive. Despite individual and specific variations, scratching method is considered a useful taxonomic character.—J. W. H.
- Skutch, A. F. 1961. The nest as a dormitory. *Ibis*, **103a**: 50–70.—With few exceptions, only birds that breed in roofed nests sleep in their nests. The first step in the evolution of the dormitory habit is the use by the adults of the nest as a roost before eggs are laid. In a further stage, both adults may roost in the nest throughout breeding, while the young may roost there after having left the nest. Finally, in some species, separate dormitory nests are built; other birds or family groups

may roost in the structure and remain together for a prolonged period after the young are grown. Numerous examples are given. Effects of climate, altitude, and latitude are discussed. The dormitory habit is best developed in mild climates, where birds are permanently resident.—J. W. H.

Snow, D. 1961. The displays of the manakins *Pipra pipra* and *Tyrannneutes virescens*. Ibis, **103a**: 110–113.—Previously undescribed displays of these two piprids were seen by the author in British Guiana.—J. W. H.

Swift, J. J. 1960. Notes on the behaviour of Whiskered Terns. Brit. Birds, **53**: 559–572.—Observations on a colony of *Chlidonias hybrida* in the Camargue gave information on breeding biology, food and feeding, and reproductive behavior. Displays are very similar to those of the Black Tern (*Ch. niger*). The two species are sympatric and seem to be kept apart by small differences in morphology and voice.—F. M.

Thorpe, W. H., and B. I. Lade. 1961. The songs of some families of the Passeriformes. I. Introduction: The analysis of bird songs and their expression in graphic notation. Ibis, **103a**: 231–245.—After a brief discussion of some of the principles of sound production, sound characteristics, and the recording of these for analysis by sonograph, the authors show how a diagrammatic representation of a sonogram is helpful in interpretation of song patterns. Conventional symbols replace the essential parts of the sound pattern, and the delicate shading of original sonographic patterns is eliminated to facilitate comparison of different songs and different species by their songs. The ordinate of the graph of the sonogram is doubled (spreading out the frequency) while the abscissa (the time component) is halved.—J. W. H.

Thorpe, W. H., and B. I. Lade. 1961. The songs of some families of the Passeriformes. II. The songs of the buntings (Emberizidae). Ibis, **103a**: 246–259.—The songs of at least one species of 18 of the 21 genera of Emberizidae are analyzed by sonograph. The songs of all are short, repetitive, and simple, being used mostly in territorial proclamation. Their similarity is due to convergence. Some are stereotyped, others quite variable (perhaps serving as a means of individual recognition). Several song-pattern characteristics (such as wheezing and buzzing, and duration of song) may be generic characters. In those species with song flight, a larklike quality in voice has tended to develop.—J. W. H.

#### DISTRIBUTION AND ANNOTATED LISTS

Aronoff, A. E. 1960. Some observations on birds of Torishima. Tori, **15**: 269–279.—Notes on a trip in April 1958 to the island that is the only known breeding place of Steller's Albatross, of which 14–15 adults, 5–7 immatures, and 8 chicks were seen. Annotated list. Photographs of *Diomedea albatrus*, *D. nigripes*, and *Oceanodroma markhami owstoni*. In English with Japanese summary.—K. C. P.

Cawell, E. M., and J. E. Hamilton. 1961. The birds of the Falkland Islands. Ibis, **103a**: 1–27.—An annotated check-list with data on status and habits, preceded by a discussion of the environment, including the effects of human settlement.—J. W. H.

Fry, C. H. 1961. Notes on the birds of Annobon and other islands in the Gulf of Guinea. Ibis, **103a**: 267–276.—After a description of the island habitat in question, there is a systematic list. Annobon's bird population is exemplary of small-island populations in being highly unstable; its avifauna has changed markedly in the last 60 years as shown by comparisons of the most recent data available with records of earlier expeditions. Competition between resident land birds and newly arrived immigrant species is believed to be the reason for the paucity of land birds on this island.—J. W. H.

- Harris, G. J., J. L. F. Parslow, and R. E. Scott. 1960. Northern Waterthrush in the Isles of Scilly: a bird new to Great Britain and Ireland. *Brit. Birds*, **53**: 513-518.
- Hashimoto, T. 1960. Notes on the Reef Heron and the Japanese Wood Pigeon in Mie Prefecture. *Tori*, **15**: 264-268.—Records of *Demigretta sacra* and *Columba janthina*. The latter is said to be "almost extinct from mainland of Honshiu," but Austin and Kuroda (1953, *Bull. M. C. Z.*, 109: 465-466) state that there is no evidence of the bird ever having occurred on any of the main four islands of Japan. In Japanese with English summary.—K. C. P.
- Heintzelman, D. S. 1961. Kermadec Petrel in Pennsylvania. *Wils. Bull.*, **73**: 262-267.—A *Pterodroma neglecta*, identified from a photograph at Hawk Mountain, is reported as the first record of the species for North America.—J. T. T.
- Ishizawa, J. 1960. On the distribution and migration of *Muscicapa mugimaki*. *Tori*, **15**: 283-286.—The author considers this Siberian breeding species somewhat more common as a transient in Japan than believed by previous writers. A late May record on Mt. Fuji is interpreted as evidence that transient birds might stop and breed in Japan in a suitable environment. In Japanese with English summary.—K. C. P.
- Koepcke, M. 1961. Birds of the western slope of the Andes of Peru. *Am. Mus. Novitates*, **2028**: 31 pp.—Discussion of 76 species that illustrate the previously unreported extension into middle Peru of certain life zones and biotopes of northwestern Peru and western Ecuador. Other range extensions are given, and two subspecies described as new: *Asthenes pudibunda grisior* (Chuquibamba, Dept. Arequipa) and *Hemispingus melanotis macrophrys* (Sunchubamba, upper Chicama Valley).—K. C. P.
- Mountfort, G., and I. J. Ferguson-Lees. 1961. The birds of the Coto Doñana. *Ibis*, **103a**: 86-109.—A well-annotated list of the birds of this unspoiled region of Spain, based on three spring field expeditions in 1952, 1956, and 1957. Status, breeding, ecology, and the effects of a 1957 drought are discussed. Two hundred and ten species were noted, including a new one for Spain (*Lanius nubicus*) and a new one for Europe (*Calandrella raytal*).—J. W. H.
- Peña, L. E. 1961. Results of research in the Antofagasta Ranges of Chile and Bolivia. *Birds. Postilla*, **49**: 1-42.—A description of the high Andes of northwestern Chile and adjacent Bolivia and birds collected there on two expeditions. Most interesting are the data on flamingos, which inhabit the high alkaline lakes. On 20-27 Dec. 1958 the writer and R. T. Peterson (who supplies color pl.) found the supposedly very rare *Phoenicoparrus jamesi* by far the most abundant (7,000 estimated) of three flamingos present on Laguna Colorada, Bolivia. Greenish-yellow mud in the stomach proved to consist substantially of diatoms (described in detail by R. Patrick in the same paper).—E. E.
- Ripley, S. D., and D. S. Rabor. 1961. The avifauna of Mount Katanglad. *Postilla*, **50**: 1-20.—An account of the birds of a mountain on Mindanao, Philippines. *Serinus mindanensis* and *Erythrura coloria* are described as new species (color pl. by R. V. Clem), and *Pericrocotus flammeus gonzalesi* and *Pyrrhula leucogenys coriaria* as new subspecies.—E. E.
- Sakane, M. 1960. *Bambusicola thoracica sonorivox* increasing in Hyogo. *Tori*, **15**: 286-289.—Bamboo Partridges of the nominate (mainland China) race were introduced in Japan about 30 years ago, and thrived. Some individuals of *sonorivox*, the Formosan race, were also introduced, but there have been no recent references to birds of this race in Japan. The author found a group of about 20 *sonorivox* in a limited area near the site of the original introduction. In Japanese with English summary.—K. C. P.

- Uys, C. J. *et al.* 1961. Mass breeding of the Greater Flamingo (*Phoenicopterus ruber roseus*) in the Bredasdorp District. Ostrich, **32**: 92-93.—First successful mass breeding recorded in South Africa: in December 1960 two colonies, about 400 and 445 breeding pairs.—E. E.

#### ECOLOGY AND POPULATION

- Bender, R. O. 1961. Food competition among closely related sympatric species. Wils. Bull., **73**: 214.—A *Coccyzus erythrophthalmus* and a *C. americanus* fed together on caterpillars, the second retreating from the first in the case of conflict but not leaving the tree.—J. T. T.
- Knorr, O. A. 1961. The geographical and ecological distribution of the Black Swift in Colorado. Wils. Bull., **73**: 155-170.—Twenty-seven nesting colonies of *Cypseloides niger* were located over a 10-year period. The stringent requirements for a colony site are described in detail.—J. T. T.
- Mayfield, H. 1961. Nesting success calculated from exposure. Wils. Bull., **73**: 255-261.—Nesting success can be estimated more accurately than by the usual methods by calculating the survival rate per day of eggs and nestlings observed and extrapolating to the full nesting period. The method is illustrated with data on the Kirtland's Warbler (*Dendroica kirtlandii*).—J. T. T.
- Royama, T., M. Uramoto, and S. Takano. 1960. Bird research at Musashi Imperial Tomb area (Occasional Report 2). The Great Tit at the roost. Misc. Reports Yamashina's Inst. for Ornith. and Zool., **2** (15): 123-129.—A study of winter roosting of *Parus major* in nest boxes. There was a tendency for an individual tit to occupy a single box or several within a circumscribed area. Although the total population declined (attributed to heavy winter mortality), the sex ratio remained constant at approximately 70 per cent males. Direction of entrance hole of nest boxes proved of no significance. In English.—K. C. P.
- Southern, W. E. 1961. A botanical analysis of Kirtland's Warbler nests. Wils. Bull., **73**: 148-154.—Plants composing the nests of *Dendroica kirtlandii* were identified. The possibility that the distribution of these plants determines that of the warbler is discussed.—J. T. T.

#### GENERAL BIOLOGY

- Booth, B. D. McD. 1961. Breeding of the Sooty Falcon in the Libyan Desert. Ibis, **103a**: 129-130.—This is only the second report of the breeding of this species (*Falco concolor*) and the first report in over 100 years. The birds were discovered nesting in completely barren terrain in the Libyan Desert. Here, their breeding season seemingly is late so that they may take advantage of migrant birds as a source of food. There is some evidence that these falcons are resident in this desert region, but the question of water economy and food at times of year when no migrants fly makes their constant residence seem impossible.—J. W. H.
- Haverschmidt, F. 1961. The breeding of the Common Heron in immature plumage. Ardea, **49**: 72-74.—*Ardea cinerea* in immature plumage shown to breed with some regularity, mating with fully adult birds. It has been suggested that only the females become sexually mature in the second year before attaining adult dress.—E. E.
- Hunter, H. C. 1961. Parasitism of the Masked Weaver *Ploceus velatus arundinaceus*. Ostrich, **32**: 55-63.—The cuckoo *Chrysococcyx caprius* parasitizes this African weaver. Breeding success in 120 nests studied.—E. E.
- KOSUGI, A. 1960. On the food habits of some herons. Misc. Reports Yamashina's Inst. for Ornith. and Zool., **2** (15): 89-98.—Stomach contents analysis of *Egretta alba*, *E. intermedia*, *E. garzetta*, *Bubulcus ibis*, and *Nycticorax nycticorax* in Sai-

- tama Prefecture, Japan. All fed together in rice fields, but there were decided differences in food preference. Crayfish and insects (in varying proportion) were preferred by the three *Egretta*; the Cattle Egret fed almost entirely on insects; the Night Heron was the only species in which fish constituted the majority of the food (56 per cent). In Japanese; tables and summary in English.—K. C. P.
- Kuroda, N. 1960. Research on the winter roost-mortality in the Grey Starling. Misc. Reports Yamashina's Inst. for Ornith. and Zool., **2** (15): 99-122.—Analysis of birds found dead in three large (50,000; 8,000; 6,000+) winter roosts of *Sturnus cineraceus* in Japan. Of 74 dead birds examined, 69 were apparently killed by an unidentified disease characterized by hemorrhages of brain and other organs, and lung congestion. Analyses of parasitic infestation, sex ratio, gonad development, fat deposition, and skull ossification of the sample are also given. In Japanese; tables and a long summary in English.—K. C. P.
- Oatley, T. B. 1961. Notes on *Sheppardia aequatorialis*. Ibis, **103a**: 290-291.—Notes on habits, voice, and food of this little known Akalat.—J. W. H.
- Sheldon, W. G. 1961. Summer crepuscular flights of American Woodcocks in central Massachusetts. Wils. Bull., **73**: 126-139.—Age and sex ratios of 746 *Philohela minor* captured in mist nets are reported. The birds were making nightly flights into dry fields, apparently to feed.—J. T. T.
- Vaughan, R. 1961. *Falco eleonora*. Ibis, **103a**: 114-128.—A summary of the known facts concerning this rare falcon, presented under the following headings: Characters, General Habits, Breeding, Breeding Distribution and Numbers, Migration, and Predation. The species breeds from July to October, is largely a crepuscular feeder, and is dimorphic. The total population is probably less than 4,000 birds. A valuable report given in much the same style as the best of Bent's Life Histories.—J. W. H.

## MIGRATION AND ORIENTATION

- Ballance, D. K., and S. L. B. Lee. 1961. Notes on autumn migration at the Bosphorus and in the Aegean. Ibis, **103a**: 195-204.—Daily counts of soaring birds (mainly White Storks, Honey Buzzards, and Black Kites) migrating over the Bosphorus are given. Strong northeast winds inhibited these movements, heavy migrations occurring only with light winds. The pattern of White Stork migration through the area is discussed. Observations on other diurnal and nocturnal migrants are included—J. W. H.
- Barry, M. 1960. Observations from a light-vessel on Passerine immigration into the Wash in autumn 1956. Brit. Birds, **53**: 435-443.—Presents evidence of a large influx from Scandinavia. The value of observations from light vessels is discussed in relation to coastal observation and radar study.—F. M.
- Drury, W. H., Jr. 1961. Two observations on the orientation of day migrants heading inland from the Massachusetts coastline. Wils. Bull., **73**: 211-212.
- Fry, C. H. 1961. Movements at sea between southwest Iberia and northwest Africa. Ibis, **103a**: 291-293.—Notes on land-bird migrants.
- Henty, C. J. 1961. Further observations on migration in southwest Iberia. Ibis, **103a**: 28-36.—Visible migration during August and September 1958 is reported under groups of species. No "rushes" of night migrants were encountered. Autumn migration is probably on a broad front with no concentration on the short sea crossing at the straits of Gibraltar. Thus, a large number of small birds migrate 200 miles across the sea with little room for navigational error.—J. W. H.
- Lambert, A. 1961. Spring migration of raptors in Bulgaria. Ibis, **103a**: 130-131.—

- Description of late March migration of hawks and other birds near Burgas.—J. W. H.
- Lofts, B., and A. J. Marshall. 1961. *Zugunruhe* activity in castrated bramblings *Fringilla montifringilla*. *Ibis*, **103a**: 189–194.—Thirty adult, male bramblings were trapped, and half of these were castrated. Each group of birds was kept during the early spring (at the time the species would be migrating north from the British Isles to nesting grounds) in thermostatically controlled (28°C) rooms, isolated from each other. *Zugunruhe* developed in the castrated, isolated bramblings, beginning a little later in the spring (one week) and later each night than in the control flock. Peaks in intensity in both groups occurred about the same time, coinciding with greatest migratory activity of the species in the wild. In intact birds unrest occurred during the first period of seasonal gonad change, waning by the time of sperm production. The data indicate that migratory unrest and gonad development are independent of each other. Influence of extratesticular (adrenal cortex) androgens on unrest is a remote possibility. Employing gonadal size as a direct index of hormonal activity therein is ill advised.—J. W. H.
- Long, R. C. 1961. Some land birds noted at sea between Mombasa and the English Channel. *Ibis*, **103a**: 131–133.
- Matthews, G. V. T. 1961. "Nonsense" orientation in Mallard *Anas platyrhynchos* and its relation to experiments on bird navigation. *Ibis*, **103a**: 211–230.—Nonmigratory Mallards have a strong tendency to fly northwest upon release, regardless of distance and direction of release, season, or length of captivity. Such flight occurs at any time of day by both sexes and all ages. Topography of release site has no effect. Its basis may be sun orientation. The orientation breaks down rapidly, and there is no evidence of true navigation ability. The orientation may function toward flock unity, and it may be related to the northward, postfledging movements of many birds. The existence of this orientation in the pigeon seems to have caused confusion in researches on navigation using this bird.—J. W. H.
- Mueller, H. C., and D. D. Berger. 1961. Weather and fall migration of hawks at Cedar Grove, Wisconsin. *Wils. Bull.*, **73**: 171–192.—Daily counts of migrating hawks were made in the autumns of 1952 through 1957 on the western shore of Lake Michigan. More than 92 per cent of the hawks passed on days characterized by westerly winds and the recent passage of a cold front.—J. T. T.
- Pumphrey, R. J. 1960. Sun navigation by birds. *Nature*, **188**: 1127.—See also *Nature*, **188**: 1127–28; **190**: 1025–26, for discussions of pro and con methods of measuring change in sun's azimuth by birds.—H. C. S.
- Tickell, W. L. N., and C. D. Scotland. 1961. Recoveries of ringed Giant Petrels *Macroronectes giganteus*. *Ibis*, **103a**: 260–266.—In the summers of 1957–1958 and 1958–1959, the Falkland Islands Dependencies Survey banded a large number of this species. Recovery data are presented and their significance discussed. A new rookery was discovered below the Antarctic Circle. An appendix lists 112 recoveries, and the distribution of these on the southern continents in the two years is compared.—J. W. H.

#### PHYSIOLOGY

- Anand, B. K. 1961. Nervous regulation of food intake. *Physiol. Rev.*, **41**: 677–708.—A useful review for ornithologists interested in energy intake.—H. C. S.
- Bollinger, A., and D. Varga. 1961. Feather lipids. *Nature*, **190**: 1125.—Feathers from different species of birds, or from different regions of the body, vary in their lipid contents, quantitatively and qualitatively. The generally high cholestanol content is unusual.—H. C. S.

- Brown, W. O., and H. G. Badman. 1961. The influence of estradiol on the composition and respiration of oviduct tissue in the immature chick. *Endocrin.*, **69**: 275-282.
- Bunyan, J., E. E. Edwin, A. T. Diplock, and J. Green. 1961. Ubiquinone and tocopherol in birds. *Nature*, **190**: 637.—These two substances occur at higher levels in tissues of canaries and pigeons than in chickens. Highest levels found in heart of canaries and heart and pectoral muscle of pigeon; related to degree of oxidation?—H. C. S.
- Coe, M. J. 1960. Inflation of the neck pouch of the Marabou Stork. *Nature*, **188**: 598.—A complicated valvular mechanism in the left nasal region directs air from the lungs into the neck sacs during exhalation.—H. C. S.
- Hocking, B., and B. L. Mitchell. 1961. Owl vision. *Ibis*, **103a**: 284-288.—The authors subjected the Tawny Owl (*Strix aluco*) and several other birds, as well as man, to tests for red sensitivity, by measuring and observing pupil responses to change of intensity of illumination at this end of the spectrum. No evidence indicated greater sensitivity of the owl over the other test animals. Gross and histological structure of the eye showed specialization of the owl vision for weak light. No behavioral evidence that the owl could see prey by their own infra-red radiation was obtained.—J. W. H.
- Holmes, W. N., J. G. Phillips, and D. G. Butler. 1961. The effect of adrenocortical steroids on the renal and extra-renal responses of the domestic duck (*Anas platyrhynchos*) after hypertonic saline loading. *Endocrin.*, **69**: 483-495.—Extrarenal secretion of K and Na was increased after treatment with adrenocortical steroids; aldosterone was the most potent.—H. C. S.
- Hurwitz, S., and P. Griminger. 1961. Partition of calcium and phosphorus excretions in the laying hen. *Nature*, **189**: 759-760.—By collecting separately the urine and the feces, the Ca and P balance (consumption, absorption, excretion, retention) in the hen was determined.—H. C. S.
- Kendeigh, S. C. 1961. Energy of birds conserved by roosting in cavities. *Wils. Bull.*, **73**: 140-147.—Temperatures inside a box cavity used for overnight roosting by a *Passer domesticus* were higher than outside, the difference increasing with lower outside temperatures. Significant amounts of energy were conserved by the bird's roosting in a cavity.—J. T. T.
- Kirkham, K. E. 1961. Pituitary gonadotrophins during the ovulatory cycle of the domestic fowl. *Endocrin.*, **68**: 350-353.—Gonadotrophins higher in birds killed before (8 hours) than after (2 hours) ovulation.—H. C. S.
- Morris, T. R., and A. V. Nalbandov. 1961. The induction of ovulation in starving pullets using mammalian and avian gonadotropins. *Endocrin.*, **68**: 687-697.—Failure to lay in starved pullets is primarily due to failure of the pituitary to secrete adequate gonadotropins.—H. C. S.
- Rudolph, H. J., and N. C. Pehrson. 1961. Growth hormone effect on the blood plasma proteins in the parakeet. *Endocrin.*, **69**: 661-663.

## TAXONOMY AND PALAEOLOGY

- Bigelow, R. S. 1961. Higher categories and phylogeny. *Syst. Zool.*, **10**: 86-91.—A persuasive argument in favor of a series of "horizontal" classifications, for each geological era or period, as being superior both in logic and in convenience to a strictly monophyletic or "vertical" classification.—K. C. P.
- Brown, W. L., Jr. 1961. An international taxonomic register: preliminary proposals. *Syst. Zool.*, **10**: 80-85.—An interesting idea for an international card file register,



- to which individuals and institutions could subscribe (for the whole or any part), and which would eventually constitute the sole "legal" publication outlet for descriptions of new taxa, new names, and new synonymies in zoology. Many of the procedural details that would inevitably arise along with such a project have been anticipated by Brown. The greatest difficulties would be connected with getting the project under way and universally accepted; once functioning, its advantages would be numerous.—K. C. P.
- Dillingham, I. H., and R. E. Moreau. Musophagidae in northwestern Tanganyika territory. *Ibis*, **103a**: 294-295.—A specimen of *Tauraco corythaix livingstonii* recently taken by Dillingham proves the existence of a relict population of musophagids in the forests of northwestern Tanganyika Territory and southern Urundi. Though the authors believe that this population may be of separate evolutionary origin from other populations called by the same trinomial, from which they are isolated, no morphological character seems to separate the isolated population from the remainder of the "race." Similar problems of taxonomic determination and ecological separation of some species of musophagids are discussed.—J. W. H.
- Johnsgard, P. A. 1961. The taxonomy of the Anatidae—a behavioural analysis. *Ibis*, **103a**: 71-85.—The classification proposed by Delacour and Mayr (1945) is considered basically sound. Delacour's more recent suggestions are dealt with: merging of *Meganetta* into Anatini and erection of the Anseranatinae are accepted, while erection of the Somateriini is rejected. Numerous other recommendations are given, primarily concerning generic and specific changes.—J. W. H.
- Kist, J. 1961. ["Systematic" discussion regarding the occurrence of Heuglin's Yellow-legged Gull, *Larus cachinnans heuglini* Bree, in the Netherlands.] *Ardea*, **49**: 1-50.—In an effort to identify a gull seen, but not collected, the recent taxonomic literature on the *Larus argentatus-cachinnans-fuscus* complex in the Palearctic is reviewed. The writer, admittedly not a systematist, urges that *cachinnans* be treated as a species, including subspecies *cachinnans*, *michahellis*, *atlantis*, *heuglini*, *mongolicus*, and *vegae*. In a postscript to the paper G. C. A. Junge raises certain questions that cast doubt on the separation of the *cachinnans* group as a species distinct from *L. argentatus*. (In Dutch; long English summary.)—E. E.
- Kuroda, N. 1960. Avian systematics and problems of species and subspecies. Misc. Reports Yamashina's Inst. for Ornith. and Zool., **2** (15): 71-88.—An extensive review paper in Japanese (with English summary) of recent work in avian systematics. Many important papers are cited; the bibliography is to appear in the next issue.—K. C. P.
- Lawson, W. J. 1961. The races of the Karoo Lark *Certhilauda albescens* (Lafresnaye). *Ostrich*, **32**: 64-74.—Taxonomic review. *Ammomanes burra* (Bangs) is treated as a subspecies of *C. albescens*.—E. E.
- Mainardi, D. 1960. Immunological relationships of the Peacock *Pavo cristatus*. Misc. Reports Yamashina's Inst. for Ornith. and Zool., **2** (15): 130-132.—Immunological analysis of red-cell antigens of eight galliform species indicates close immunological affinity among *Phasianus*, *Gennaeus*, *Chrysolophus*, *Meleagris*, *Numida*, and *Pavo*, with the peacock especially close to the Guinea hen. *Gallus* (domestic) and *Coturnix* are each rather remote from all of the others. This arrangement agrees with Yamashina's karyological findings. The reviewer would point out that other evidence (including the frequent hybridization of *Gallus* and *Phasianus*) suggests that these techniques may not be infallible guides to actual taxonomic relationships. In English.—K. C. P.
- Sims, R. W. 1961. The identification of Malaysian species of swiftlets *Collocalia*. *Ibis*, **103a**: 205-210.—Most Malaysian swiftlets are much alike in appearance, and

their essential taxonomic characters not clearly defined by a single author. The situation is here remedied with a key and descriptions, including data on plumage, form of nest, measurements, and geographic range.—J. W. H.

Stenhouse, D. 1960. The redpoll in New Zealand: interbreeding sub-species. *Nature*, **186**: 488-490.—Bulk of population of introduced redpolls in New Zealand are *C. f. cabaret*, but 10-15 per cent of the population are *flammea*; the two are interbreeding.—H. C. S.

Voous, K. H. 1961. Micro-geographical variation in Netherlands Herring-Gulls, *Larus argentatus*. *Ardea*, **49**: 69-72.—Variation exists in average mantle color in different colonies. Though individual overlap is large, statistically there is a geographical trend towards darker mantles eastward.—E. E.