

RECENT LITERATURE

EDITED BY FRANK MCKINNEY

BEHAVIOR

- Davis, J. 1960. Nesting behavior of the Rufous-sided Towhee in coastal California. *Condor*, **62**: 434-456.—Detailed, long-time observations of relatively few nests. Data on such topics as nests, eggs, incubation. Most pairs rear one brood; female builds nest, incubates, and broods alone.—R. E. P.
- Goethe, F. 1957. Das Herabstarren, eine Übersprungbewegung bei den Lariden. *Behaviour*, **11**: 310-317.—The behavior pattern of "staring down" occurs in many members of the Laridae and Limicolae. It often occurs in conflict situations and is thought to be the formalized part of displacement pecking and/or displacement preening.—F. M.
- Hailman, J. P. 1960. Hostile dancing and fall territory of a color-banded Mockingbird. *Condor*, **62**: 464-468.
- Iersel, J. J. A. van and A. C. A. Bol. 1958. Preening of two tern species. A study on displacement activities. *Behaviour*, **13**: 1-88.—A very detailed analysis of preening in *Sterna sandvicensis* and *S. hirundo*, with important theoretical discussions. Preening after bathing involves a number of movements that tend to occur in a certain order. Different threshold values are postulated for each movement, and this leads to conclusions about fluctuations in the strength of the "preening drive." Displacement preening in conflict situations (*e.g.*, between brooding and escape, attack and escape) is analyzed. Displacement activities may occur even when there is no overt expression of the conflicting drives. A new "disinhibition hypothesis" is developed in place of the former "sparking over" concept: a conflict results in mutual inhibition of the two drives and "allows" expression of another drive.—F. M.
- Lehrman, D. S. and R. P. Wortis. 1960. Previous breeding experience and hormone-induced incubation behavior in the Ring Dove. *Science*, **132**: 1667-1668.—"Injected progesterone induced incubation behavior much faster, and in a higher percentage of cases, in doves [*Streptopelia risoria*] with previous breeding experience than in those without such experience. The nature of the animal's previous experience is thus one of the variables influencing behavioral responses to exogenous hormones." (Authors' abstract.)
- Lind, H. 1959. The activation of an instinct caused by a "transitional action." *Behaviour*, **14**: 123-135.—Part of a behavior pattern that is common to two activities may cause a transition from one activity to the other, *e.g.*, feeding, nest building, and diving during the precopulatory neck dipping of Cygnaeae, Anserini, and the *Casarca* groups of waterfowl.—F. M.
- Marler, P. 1957. Specific distinctiveness in the communication signals of birds. *Behaviour*, **11**: 13-39.—Releasers involved in reproductive isolation tend to be divergent between closely related sympatric species (*e.g.*, pair-formation displays). Releasers of sympatric species with functions that discourage specific distinctiveness often converge on common types (*e.g.*, alarm calls). Both of these types of releaser may be of limited value as taxonomic characters. Releasers selected for moderate specific distinctness, with both intra- and inter-specific functions (*e.g.*, preflight and aggressive displays), are useful characters indicating relationships on the generic or family level.—F. M.

- Marler, P. and D. Isaac. 1960. Song variation in a population of Brown Towhees. *Condor*, **62**: 272-283.—Detailed sonogram analyses of 55 songs of 31 individuals for temporal pattern, frequency, and syllable structure.—R. E. P.
- Morris, D. 1957. The reproductive behaviour of the Bronze Mannikin, *Lonchura cucullata*. *Behaviour*, **11**: 156-201.—Fighting, nesting, pair formation, and copulation are described and comparisons made with other Estrildine finches. Many theoretical problems are raised, and special discussions are devoted to displacement activities, the derivation and motivation of displays, and the effects of introducing new birds to an aviary colony.—F. M.
- Moynihan, M. 1958. Notes on the behavior of some North American Gulls. II. Non-aerial hostile behavior of adults. *Behaviour*, **12**: 95-182.—Most attention is given to the Ring-billed Gull and Franklin's Gull, with brief notes on California Gull and Bonaparte's Gull. Detailed description and analysis leads to a discussion of the motivation of hostile behavior patterns. All are thought to result from simultaneous activation of attack and escape drives; each pattern is produced by a certain combination, variations occurring in absolute and relative strength of the two drives. The evolutionary origin and signal functions of the displays are discussed. Comparisons are made with the behavior of other gull species, and an attempt is made to reconstruct the hostile repertory of the ancestral gull.—F. M.
- Moynihan, M. 1958. Notes on the behavior of some North American Gulls. III. Pairing behavior. *Behaviour*, **13**: 112-130.—Describes pair formation and later pairing behavior (including copulation) in Franklin's Gull and Ring-billed Gull with some notes on Laughing Gull, Bonaparte's Gull, and the American Herring Gull. Pair formation begins with hostile displays between the sexes that gradually diminish as sexual patterns appear.—F. M.
- Raitt, R. J. Jr. 1960. Breeding behavior in a population of California Quail. *Condor*, **62**: 284-292.—Includes descriptions of flock behavior and histograms of time of laying, incubating, and hatching.—R. E. P.
- Simmons, K. E. L. *et al.* 1960. Notes on anting by British Passerine birds in the wild. *Brit. Birds*, **53**: 11-25.—A five-page introduction by Simmons is followed by 14 short notes by other observers. New information is presented on many aspects of anting, including details of the ant species that have been recorded.—F. M.
- Smith, W. 1957. Social "learning" in domestic chicks. *Behaviour*, **11**: 40-55.—Experiments demonstrating social facilitation and the special case of "mimicry" (where the performance of an untrained chick is improved by the presence of a trained chick).—F. M.
- Thompson, W. L. 1960. Agonistic behavior in the House Finch. Part I: Annual cycle and display patterns. *Condor*, **62**: 245-271.—Based on both wild and captive subjects. Little aggression in loose winter flocks but increases to peak in spring during pair formation. Males defend area around nest and female but not a rigid territory. Illustrated descriptions of displays.—R. E. P.
- Thompson, W. L. 1960. Agonistic behavior in the House Finch. Part II: Factors in aggressiveness and sociality. *Condor*, **62**: 378-402.—In caged birds aggressiveness increased as space per bird decreased. Males were more aggressive than females in spring, and captive flocks show well-defined social hierarchy.—R. E. P.
- Tschanz, B. 1959. Zur Brutbiologie der Trottellumme (*Uria aalge* Pont.). *Be-*

haviour, **14**: 1-100.—The behavior of the Guillemot in relation to its incubation site, eggs, and chicks is described in detail. Experiments on egg color and pattern show that both are important in enabling each bird to identify its own egg. Adaptation to a new color and pattern can be induced, but the change must be gradual. Incubation activities are influenced both by the egg and the site. Egg rolling occurs in the "incubation area" and the "egg-rolling area" when the egg closely resembles the bird's own, but rolling is inhibited in foreign areas and with foreign eggs. The feeding and protection of the young are described. Auditory signals are important in keeping contact between parents and chick. Special attention is given to the behavior associated with the chick's departure from the ledge.—F. M.

DISTRIBUTION AND ANNOTATED LISTS

- Anon. 1960. Additions to the British and Irish list: White-throated Sparrow, Black-and-white Warbler, and Olive-backed Thrush. *Brit. Birds*, **53**: 97-99.
- Davis, J. 1960. Notes on the birds of Colima, Mexico. *Condor*, **62**: 215-219.—Annotated list.
- Fawks, E. 1960. A survey of wintering Bald Eagles. *Iowa Bird Life*, **30**: 56-58.—The decline of eagles in the Tri-City area of Iowa and Illinois.—E. E.
- Hall, B. P. 1960. The faunistic importance of the Scarp of Angola. *Ibis*, **102**: 420-442.—Evidence is presented that the Scarp of Angola is (1) a center of speciation, (2) an important barrier between two drier zones allowing subspecies to develop in each, and (3) a region where endemic or nearly endemic species of birds occur. The geography, climate, and vegetation are discussed, as well as the avifaunal zones of Angola. Thereafter, species providing evidence for each of the above three proposals are discussed one at a time, including data on characters and ranges and an *interpretation* relating evolution of the species to the proposed influence of the Scarp.—J. W. H.
- Hebard, F. V. 1960. The land birds of Penobscot Bay [Maine]. Portland [Me.] Soc. Nat. Hist., 39 pp.—A local list.
- Kenyon, K. W. and J. W. Brooks. 1960. Birds of Little Diomed Island, Alaska. *Condor*, **62**: 457-463.—Annotated list.
- Mountfort, G. 1960. Opportunities for co-operation with French ornithologists. *Brit. Birds*, **53**: 193-199.—Discusses some of the gaps in knowledge of bird distribution in France and suggests contributions that can be made by visiting ornithologists.—F. M.
- Nisbet, I. C. T. 1960. Notes on the American Purple Gallinule. *Brit. Birds*, **53**: 146-149.—Notes accompanying the announcement of the first European record, an exhausted bird found on the Isles of Scilly, 7 Nov. 1958.
- Nisbet, I. C. T. 1960. Notes on the Rose-breasted Grosbeak. *Brit. Birds*, **53**: 150-152.—Notes accompanying the announcement of the first European record, an adult male seen in Northern Ireland, 24 Nov. 1957.
- Novikov, G. A. (ed.). 1960. *Trudy Kandalkshskogo gosudarstvennogo zapoved-nijika*. (Scientific works of the Kandalaksha state reservation.) Vol. II. Murmansk book publishers, pp. 336.—The volume contains five papers, as listed below; the faunistic and ecological material from a reserve in northwest USSR is interesting for comparison with other subarctic regions. Blagosklonov, K. N., Birds of the Kandalaksha reserve and the vicinity of the White Sea biological station of Moscow University; Bianki, V. V., Flerov, A. I., A list of birds of

- Kandalaksha Bay and its shores; Bianki, V. V., Nonbreeding auks (Alcae) in Kandalaksha Bay; Kashinskiy, A. A., A contribution to the fauna and ecology of birds of the Teribersk-rayon of Murmansk area; Spangenberg, E. P., Leonovitch, V. V., Birds of the northeastern shores of the White Sea.—F. J. T.
- Prigogine, A. 1960. La fauna ornithologique du Massif du Mont Kabobo. An. Mus. Roy. Congo Belge, Sci. Zool., **85**: 1–46.—Birds of the Mount Kabobo area on the west shore of Lake Tanganyika in the former Belgian Congo.
- Youngworth, W. G. 1960. The Arctic Towhee along the western border of Iowa: a discussion and summary. Iowa Bird Life, **30**: 51–53.—*Pipilo e. erythrophthalmus* is breeding form, but *P. e. arcticus* is a regular migrant and sometimes winters.—E. E.

ECOLOGY AND POPULATIONS

- Boswall, J. 1960. Observations on the use by sea-birds of human feeding activities. Brit. Birds, **53**: 212–215.
- Boyd, J. M. 1960. The distribution and numbers of Kittiwakes and Guillemots at St. Kilda. Brit. Birds, **53**: 252–264.
- Burton, J. H. II. 1959. Some population mechanics of the American coot. Jour. Wildl. Mgt., **23**: 203–210.—Adult survival rate in E. North America is 43 per cent \pm 6 per cent. Birds wintering on the southeast coast cross the upper Mississippi valley. Differential migration by sex and age is suggested.—J. P. R.
- Chambers, R. E. and W. M. Sharp. 1958. Movement and dispersal within a population of Ruffed Grouse. Jour. Wildl. Mgt., **22**: 231–239.—Sex and age differences in movements of banded birds in Pennsylvania.—J. P. R.
- Gillham, M. E. 1960. Vegetation of tern and gannet colonies in northern New Zealand with a comparative note on colonies in the Bass Strait, Tasmania. Trans. Roy. Soc. N. Z., **88**: 211–234.
- Goodwin, D. 1960. Comparative ecology of pigeons in inner London. Brit. Birds, **53**: 201–212.—Observations on food, feeding behavior, competitors for food, nesting, and roosting of the Feral Pigeon (*Columba livia*), the Woodpigeon (*C. palumbus*), and the Stock Dove (*C. oenas*).—F. M.
- Graham, S. A. and G. S. Hunt. 1958. A noncyclic Ruffed Grouse population near Ann Arbor, Michigan. Jour. Wildl. Mgt., **22**: 427–432.—A 30-year study on 100 acres of swampland.—J. P. R.
- Novikov, G. A. 1960. Geograficheskaya izmenchivost' plotnosti naseleniya lesnikh ptits v evropeyskoy chasti SSSR i sopredel'nykh stran. (Geographical variation in the density of forest birds in the European part of the USSR and adjacent countries.) Zool. Zhurnal, **39**: 433–447.—Field studies and literature data suggest that forest bird densities show a gradual N–S increase, and a less regular E–W increase. Marked yearly and seasonal fluctuations are shown. Factors such as age and composition of forest stands, cultivation, edge effect, etc. influence density. Lowest density has been found in pine woods among the coniferous, and in pure beech stands among the deciduous forest types. Highest densities (up to 42 pairs/hectare) occurred in pure and mixed oak stands (oak-hornbeam, oak-lime, etc.) of the woodland belt and (up to 31 pairs/hectare) in plantations and shelterbelts of the same area. Pine woods apparently did not show density variation throughout eastern Europe.—F. J. T.
- Owen, D. F. 1960. The nesting success of the heron, *Ardea cinerea*, in relation to the availability of food. Proc. Zool. Soc. Lond., **133**: 597–617.—Food studied

in England; over six years the average clutch size did not vary, but in years of food shortage last-hatched nestling died; percentage of survival higher in smaller broods.—E. E.

Sherwood, G. A. 1960. The Whistling Swan in the west with particular reference to Great Salt Lake valley, Utah. Condor, **62**: 370–377.—Population fluctuations, food, mortality, advisability of allowing hunting are discussed.—R. E. P.

GENERAL BIOLOGY

Anderson, A. H. and A. Anderson. 1960. Life history of the Cactus Wren. Part III: The nesting cycle. Condor, **62**: 351–369.—Clutch size, hatching, fledgling success, incubation behavior, nestling and feeding behavior are described. Only female incubates; function of "extra" nests is discussed.—R. E. P.

Atwater, M. G. 1959. A study of renesting in Canada geese in Montana. Jour. Wildl. Mgt., **23**: 91–97.—Two of 12 females renested when their eggs were removed.—J. P. R.

Beebe, F. L. 1960. The marine peregrines of the northwest Pacific coast. Condor, **62**: 145–189.—Taxonomic, life history, and ecological data on the populations of the coastal islands based on 10 years of field work and collecting. Abundant prey in the form of two species of nesting petrels and two alcid permits high reproductive success and unusually dense populations.—R. E. P.

Carrick, R., K. Keith, and A. M. Gwynn. 1960. Fact and fiction on the breeding of the wandering albatross. Nature, **188**: 112–114.—A short but pointed review of the ornithological mythology that has permeated the writings on the wandering albatross, with a plea to supplant this speculation with some of the modern facts known about this bird.—H. C. S.

Chamberlain, J. L. 1959. Gulf coast marsh vegetation as food of wintering waterfowl. Jour. Wildl. Mgt., **23**: 97–102.—An analysis of 1,251 gizzards from 17 species of ducks and geese.—J. P. R.

Crispens, C. G. Jr., I. O. Buss, and C. F. Yocom. 1960. Food habits of the California Quail in eastern Washington. Condor, **62**: 473–477.

Dzubin, A. 1959. Growth and plumage development of wild-trapped juvenile Canvasback (*Aythya valisneria*). Jour. Wildl. Mgt., **23**: 279–290.—Data from 122 known age birds in southern Manitoba.—J. P. R.

Miller, A. H. 1960. The Slaty Spinetail. Condor, **62**: 413.

Nolan, V. Jr. 1960. Breeding behavior of the Bell Vireo in southern Indiana. Condor, **62**: 225–244.—Life history information based on observations of banded birds at the fringe of the species' range.—R. E. P.

Sage, B. L. 1960. Some notes on the Rufous Warbler. Brit. Birds, **53**: 265–271.—Taxonomy, habitat, nest and eggs, postfledging period, food and feeding methods, and aggressive display of *Erythropygia galactotes familiaris* in Iraq.—F. M.

Selander, R. K. and D. R. Giller. 1950. First-year plumages of the Brown-headed Cowbird and Redwinged Blackbird. Condor, **62**: 202–214.—Occurrence and significance of juvenile feathers retained in first-year plumage.—R. E. P.

Williams, G. R. 1960. The Takahe (*Notornis mantelli* Owen, 1948): a general survey. Trans. Roy. Soc. N. Z., **88**: 235–258.—A full account of all that is known, including much new data on behavior, of a bird that until rediscovered in 1948 was believed to be extinct.—E. E.

MANAGEMENT AND CONSERVATION

- Barker, R. J. 1958. Notes on some ecological effects of DDT sprayed on elms. *Jour. Wildl. Mgt.*, **22**: 269-274.—DDT was accumulated by earthworms and produced a lethal effect on robins nearly one year later.—J. P. R.
- Clawson, S. G. and M. F. Baker. 1959. Immediate effects of dieldrin and heptachlor on Bobwhites. *Jour. Wildl. Mgt.*, **23**: 215-219.—Nearly all resident quail disappeared shortly after treatment of an area with slightly less than two lbs. per acre of these insecticides.—J. P. R.
- Decker, E. 1959. A 4-year study of Wood Ducks on a Pennsylvania marsh. *Jour. Wildl. Mgt.*, **23**: 310-315.—An abrupt decline in nest-box usage is attributed to heavy hunting pressure, species vulnerability to gunning, and lack of refuges.—J. P. R.
- Fichter, E. 1959. Mourning Dove production in four Idaho orchards and some possible implications. *Jour. Wildl. Mgt.*, **23**: 438-447.
- Footo, L. E., H. S. Peters, and A. L. Finkner. 1958. Design tests for Mourning Dove call-count sampling in seven southeastern states. *Jour. Wildl. Mgt.*, **22**: 402-408.—Compares presently used routes with randomly selected routes. Suggests revision of current sampling methods.—J. P. R.
- Geis, A. D. 1959. Annual and shooting mortality estimates for the Canvasback. *Jour. Wildl. Mgt.*, **23**: 253-261.—The second report on Canvasback population dynamics based on Fish and Wildlife Service survey and banding data (see Stewart *et al.*, below). Mortality of immatures was 77 per cent and of adults 35-50 per cent. Immatures and adult females had higher mortality rates and were shot earlier in the season than adult males. Both season length and daily bag limits affect the hunting kill.—J. P. R.
- Hanson, W. C. and R. L. Browning. 1959. Nesting studies of Canada geese on the Hanford Reservation, 1953-56. *Jour. Wildl. Mgt.*, **23**: 129-137.—Population density, nesting habits (1,032 nests), and productivity in an area exposed to low-level, radioactive contamination. No adverse effects from radiation were noted.—J. P. R.
- Marsden, H. M. and T. S. Baskett. 1958. Annual mortality in a banded Bobwhite population. *Jour. Wildl. Mgt.*, **22**: 414-419.—Seven years' banding data on a Missouri refuge population show that annual mortality does not differ from that of hunted populations.—J. P. R.
- Peters, S. S. 1958. Food habits of the Newfoundland Willow Ptarmigan. *Jour. Wildl. Mgt.*, **22**: 384-394.—Three hundred crops and 500 droppings examined.—J. P. R.
- Schultz, V. and S. H. Brooks. 1958. Some statistical aspects of the relationship of quail density to farm composition. *Jour. Wildl. Mgt.*, **22**: 283-291.—A discussion of problems encountered in sampling and analysis of samples.—J. P. R.
- Scott, T. G., Y. L. Willis, and J. A. Ellis. 1959. Some effects of a field application of dieldrin on wildlife. *Jour. Wildl. Mgt.*, **23**: 409-427.—Some species of birds and mammals were virtually wiped out after treatment with three lbs. per acre. Recommendations for reducing wildlife losses are suggested.—J. P. R.
- Stewart, R. E., A. D. Geis, and C. D. Evans. 1958. Distribution of populations and hunting kill of the Canvasback. *Jour. Wildl. Mgt.*, **22**: 333-370.—Distribution and size of breeding and wintering populations and migration routes are shown. Hunting kill is related to harvest areas and breeding ground sources. Half the continental population winters in Chesapeake Bay. Seventy-five per

- cent of the hunting kill is in the U.S. Production from Saskatchewan is most important in the hunting kill. This paper makes use of the breeding ground, wintering ground, and hunter-kill surveys and banding data collected by the U.S. Fish and Wildlife Service. Limitations of the data and assumptions made in using it are discussed in a valuable appendix.—J. P. R.
- Tester, J. R. and L. Olson. 1959. Experimental starvation of pheasants. Jour. Wildl. Mgt., **23**: 304–309.—Pheasants survived at least two weeks without food in midwinter in Minnesota.—J. P. R.
- Weller, M. W. and P. Ward. 1959. Migration and mortality of hand-reared Redheads (*Aythya americana*). Jour. Wildl. Mgt., **23**: 427–433.—Hand-reared Redheads migrate later and have higher mortality than wild Redheads. Populations were not increased by releasing hand-reared birds in Michigan and South Dakota.—J. P. R.
- Wilson, H. L. and J. Lewis. 1959. Establishment and spread of the wild turkey in southwestern Michigan. Jour. Wildl. Mgt., **23**: 210–215.—Turkeys released in 1954 are successfully established and now inhabit 233 square miles, nearly all the favorable range.—J. P. R.
- Winner, R. W. 1959. Field-feeding periodicity of Black and Mallard ducks. Jour. Wildl. Mgt., **23**: 197–202.—Afternoon flights occurred earlier as population size and/or percentage of Mallards increased.—J. P. R.

MIGRATION AND ORIENTATION

- Cramp, S., A. Pettet, and J. T. R. Sharrock. 1960. The irruption of tits in autumn 1957. Brit. Birds, **53**: 49–77, 99–117, 176–192.—An important compilation and analysis of records providing the first detailed evidence that the Blue Tit (*Parus caeruleus*) and the Great Tit (*P. major*) are true irruptive species in N.W. Europe. In the fall of 1957 an influx of these two species, and to a much lesser extent of the Coal Tit (*P. ater*), occurred on the east and south coasts of England. There was a movement to the north and west across England, involving British Blue and Great Tits, which are normally very sedentary. On the continent, movements to the southwest and west occurred from central Europe, through Switzerland to S. France and N. Italy. It is suggested that the irruption was due to high numbers surviving the mild winter of 1956–57. It may have been caused by a behavior response to high numbers before an actual food shortage occurred. Between October and December there was a marked increase in the opening of milk bottles and in paper tearing by tits; the significance of these activities is discussed. Increases in other species (*Carduelis flammea*, *C. spinus*, *Dendrocopos major*, and *Garrulus glandarius*), which are known to be subject to irruptions, were also noted in 1957.—F. M.
- Eisenmann, E. 1960. Palearctic waders in eastern North America. Brit. Birds, **53**: 136–140.—A letter commenting on the paper by I. C. T. Nisbet (Brit. Birds, **52**: 205–215). The status of European species on the east coast is reviewed with special attention to the Ruff and Curlew Sandpiper. Nisbet's suggestion that Palearctic species may cross from Africa to South America in autumn and appear in eastern North America the following spring is developed. East-west crossings of the tropical Atlantic would be favored by winds and could account for late summer and autumn records also. The importance of tropical storms in transporting European species is illustrated by records from Barbados.—F. M.

- Lack, D. 1960. The height of bird migration. *Brit. Birds*, **53**: 5-10.—The common Passerine winter visitors to Britain migrate mainly below 5,000 feet. They tend to fly higher in spring than autumn, and higher by night than by day. Occasional individuals were recorded up to 14,000 feet. Very small Passerine night migrants in September were recorded up to 21,000 feet. Waders, mainly Lapwings (*Vanellus vanellus*), travel at a more constant height than Passerines, nearly all the echoes on any one movement being within 2,000 feet of each other, with a few somewhat higher. Most movements occurred between 3,000 and 6,000 feet, and the highest echo was at 11,000 feet. The problem of how birds determine their altitude is raised. (Author's summary.)
- McLean, I. and K. Williamson. 1960. Migrants at station "Juliett" in September 1959. *Brit. Birds*, **53**: 215-219.—Ten species of land birds as well as migrant terns and phalaropes were seen from a weather ship 400 miles west of Ireland. —F. M.

PHYSIOLOGY

- Chandra, P., L. Mendiola, and R. D. Cole. 1960. The effect of prolactin on the xanthine oxidizing activity of pigeon tissues. *Endocrin.*, **66**: 315-316.
- Dawson, W. R. and F. C. Evans. 1960. Relation of growth and development to temperature regulation in nestling Vesper Sparrows. *Condor*, **62**: 329-340.—Measurements of body weight, growth rate, feather development, organ-weight/body-weight ratios, O₂ consumption at various ages and temperatures, and ability to maintain body temperature.—R. E. P.
- deRoos, R. 1960. *In vitro* production of corticosteroids by chicken adrenals. *Endocrin.*, **67**: 719-721.—Corticosterone, aldosterone, and possibly cortisol have been identified from Leghorn adrenals.—H. C. S.
- Doctor, V. M. 1960. The effect of storage of NaI¹³¹ solutions upon the thyroid uptake by day-old chicks. *Endocrin.*, **66**: 559-564.
- Glees, P. 1960. Effect of cortisone on degenerating nerve fibres in birds. *Nature*, **187**: 327.
- Hoffman, R. A. 1960. Observations on serum and gonad cholesterol in pigeons. *Endocrin.*, **67**: 311-318.—Seasonal cycle with maximum in April and minimum in August; no sexual differences.—H. C. S.
- Irving, L. 1960. Nutritional condition of Water Pipits on Arctic nesting grounds. *Condor*, **62**: 469-472.—Males lose while females gain body fat after arrival on breeding grounds.—R. E. P.
- Kobayashi, H. and A. Gorbman. 1960. Radioiodine utilization in the chick. *Endocrin.*, **66**: 795-804.
- Kobayashi, H., A. Gorbman, and A. Wolfson. 1960. Thyroidal utilization of radioiodine in the White-throated Sparrow and Weaver Finch. *Endocrin.*, **67**: 153-161.
- Laws, D. F. and D. S. Farner. 1960. Prolactin and the photoperiodic testicular response in White-crowned Sparrows. *Endocrin.*, **67**: 279-281.—It was not possible to prevent photoperiodic testicular response by prolactin injections; the role of prolactin in refractoriness is open to question.—H. C. S.
- Mancini, R. E., D. Brandes, A. Portela, I. Izquierdo, and P. Kirschbaum. 1960. Autoradiographic and histochemical study of the cock's comb in normal and hormonally treated birds. *Endocrin.*, **67**: 430-440.

- Moscona, M. H. and D. A. Karnofsky. 1960. Cortisone induced modifications in the development of the chick embryo. *Endocrin.*, **66**: 533-549.—The susceptibility of various organs in the chick embryo to cortisone is specific and varies with their stage of development.—H. C. S.
- Munsick, R. A., W. H. Sawyer, and H. B. Van Dyke. 1960. Avian neurohypophyseal hormones: pharmacological properties and tentative identification. *Endocrin.*, **66**: 860-871.—Oxytocin and arginine vasotocin may be neurohypophyseal hormones in the chicken.—H. C. S.
- Nalbandov, A. V. 1959. Neuroendocrine reflex mechanisms: bird ovulation. In Gorbman, A. (ed.), *Comparative Endocrinology*, pp. 161-173.—Discusses evidence for a continuous, steady release of an FSH-LH complex from the pituitary, which is inhibited by the passage of an ovulated follicle through the upper oviduct. The complex stimulates the follicles to grow; the largest, most affected because of its greater circulation, grows most and ovulates, allowing others to move up one size as a result of the increased stimulating complex then available to them.—R. E. P.
- Nalbandov, A. V. 1959. Role of sex hormones in the secretory function of the avian oviduct. In Gorbman, A. (ed.), *Comparative Endocrinology*, pp. 524-532.—Estrogen with androgen or progesterone is needed for full development and secretion of oviduct of immature chicken. No known pituitary or steroid hormones tested would increase carbonic anhydrase in uterus although hypophysectomy reduced it.—R. E. P.
- Newcomer, W. S. and P. A. Barrett. 1960. Effects of various analogues of thyroxine on oxygen uptake of cardiac muscle from chicks. *Endocrin.*, **66**: 409-415.
- Newcomer, W. S. and J. D. Connally. 1950. The bursa of Fabricius as an indicator of chronic stress in immature chickens. *Endocrin.*, **67**: 264-265.—Bursal regression occurs with certain stress treatments.—H. C. S.
- Perek, M. and A. Eilat. 1960. Effect of removal of bursa Fabricii on depletion of adrenal ascorbic acid in ACTH-treated chicks. *Endocrin.*, **66**: 304-305.—A highly significant depletion of ascorbic acid was obtained in bursectomized birds.—H. C. S.
- Ralph, C. L. and R. M. Fraps. 1960. Induction of ovulation in the hen by injection of progesterone into the brain. *Endocrin.*, **66**: 269-272.—Premature ovulation was induced when progesterone was injected into the hypothalamus or caudal neostriatum but not when injected into other parts of the forebrain or in the pituitary.—H. C. S.
- Schultz, V. 1959. Vitamin A and Ohio Bobwhite quail during the winter of 1947-48. *Jour. Wildl. Mgt.*, **23**: 322-327.—No lack of vitamin A and no significant difference in amount stored was found in two populations.—J. P. R.
- Threadgold, L. T. 1960. A study of the annual cycle of the House Sparrow at various latitudes. *Condor*, **62**: 190-201.—Comparison of cycles of testis activity of five widely scattered populations.—R. E. P.
- Urist, M. R. and N. M. Deutsch. 1960. Osteoporosis in the laying hen. *Endocrin.*, **66**: 377-391.—Selective breeding for commercially advantageous traits has increased stress, leading to disorders of the skeleton.—H. C. S.
- Urist, M. R. and N. M. Deutsch. 1960. Effects of cortisone upon blood, adrenal cortex, gonads, and the development of osteoporosis in birds. *Endocrin.*, **66**: 805-818.

- Wilson, A. C. and D. S. Farner. 1960. The annual cycle of thyroid activity in White-crowned Sparrows of eastern Washington. *Condor*, **62**: 414-425.—Subjects were mostly sacrificed within 3-10 hours of capture and thyroid activity determined histologically. Thyroid activity was low in summer, intermediate in spring, and high in autumn and winter.—R. E. P.
- Witschi, E. 1959. Endocrine basis of reproductive adaptations in birds. In Gorbman, A. (ed.), *Comparative Endocrinology*, pp. 517-523.
- Wolfson, A. 1959. Ecologic and physiologic factors in the regulation of spring migration and reproductive cycles in birds. In Gorbman, A. (ed.), *Comparative Endocrinology*, pp. 38-70.—A review of experiments testing the role of daily light and dark periods in the control of migration and gonad development.—R. E. P.

TAXONOMY AND PALAEOLOGY

- Clancey, P. A. 1960. Miscellaneous taxonomic notes on African birds XV. Durban Mus. Novit. **6**: 13-45.—New subspecies: *Francolinus shelleyi sequestris*, *Meliæra musicus argentiior*, *Streptopelia capicola abunda*, *Telophorus quadricolor quartus*. Other species discussed are *Clamator jacobinus (serratus considered a subspecies)*, *Cuculus poliocephalus*, *Colius indicus*, *Erythropygia quadri-rivirgata*, *Prionops retzii* and *Zosterops pallida*.—E. E.
- Deignan, H. G. 1960. Remarks on the Flower-pecker, *Dicaeum agile* (Tickell). Bull. Brit. Orn. Club, **80**: 142-144.—Questions correctness of Salomonsen's recent treatment.—E. E.
- Harrison, C. J. O. 1960. Signal plumage and phylogenetic relationship in some doves. Bull. Brit. Orn. Club, **80**: 134-140.—Many terrestrial genera of doves throughout the world show chestnut on inner webs of primaries, but it may be absent in allied species or even subspecies. The presence of this chestnut may indicate ancestral relationship between the genera; its absence (when otherwise present in the genus) may serve as a specific distinguishing mark.—E. E.
- Johnsgard, P. A. 1960. Classification and evolutionary relationships of the sea ducks. *Condor*, **62**: 426-433.—A re-analysis of the relationships in this group, especially of the behavioral contributions to their systematics.—R. E. P.
- Lanyon, W. E. 1960. The Middle American populations of the Crested Flycatcher *Myiarchus tyrannulus*. *Condor*, **62**: 341-350.—Analysis of morphology, calls, and ecological distribution of four subspecies occurring in the area. All populations have the same basic vocal repertoire, and the author suggests that vocal characters are important in species discrimination.—R. E. P.
- Salomonsen, F. 1960. Notes on Flowerpeckers (Aves, Dicaeidae). 3. The species group *Dicaeum concolor* and the superspecies *Dicaeum erythrothorax*. Amer. Mus. Novitates, **2016**: 36 pp.—Four rather than the usual three races of the Philippine *D. hypoleucum* are admitted. *D. erythrorhynchos* (2 races) and *D. concolor* (7 races) are sibling species. *D. davao* may be specifically distinct from *D. pygmaeum*. The superspecies *D. erythrothorax*, including the species *nehrkorni*, *vulneratum*, *erythrothorax*, *pectorale* (including *geelvinkianum*), *eximium* and *aeneum*, is reviewed. *D. aeneum malaitae* is named as new from Malaita, Solomon Is. *D. tristrami* is an aberrant offshoot of this superspecies.—K. C. P.
- Singh, R. S. 1960. A new bird to science found from Abary River. *Sporophila hypochroma rothi* Roth's Chestnut-rumped Seed-eater. *The Daily Argosy*, Oct.

- 25, 1960, p. 6. Georgetown, Demarara, British Guiana.—New subsp. from British Guiana formally described in an ordinary daily newspaper—a most undesirable and unnecessary practice.—E. E.
- Traylor, M. A. 1960. Genera *Corythornis*, *Ipsidina* and *Myioceyx*. Bull. Brit. Orn. Club, **80**: 144–146.—Generic rearrangement of certain Old World tropical kingfishers.—E. E.
- Vaurie, C. 1960. Systematic notes on Palearctic birds. No. 42. Strigidae: the genus *Athene*. Amer. Mus. Novitates, **2015**: 21 pp.—The first complete review of the Little Owl (*A. noctua*) throughout its range, with 13 races recognized. One race of *A. brama* reaches the Palearctic; this population was described by Koelz as *A. b. albida*, but is not separable from *A. b. indica*.—K. C. P.
- Vaurie, C. 1960. Systematic notes on Palearctic birds. No. 43. Strigidae: the genera *Otus*, *Aegolius*, *Ninox* and *Tyto*. Amer. Mus. Novitates, **2021**: 19 pp.—Evidence is overwhelming that *Otus scops* and *O. brucei* are two good species in spite of Meinertzhagen's opinion to the contrary. Two isolated groups of races of *O. scops* are Palearctic; the western (*scops*) group is reviewed briefly, with seven races admitted. *O. brucei* is monotypic. One population of the African *O. leucotis* reaches the Palearctic in the southern Sahara, and may prove subspecifically separable from the Sudanese *margarethae*. Only five of nine proposed races of *A. funereus* are admitted, including the American *richardsoni*. The confused nomenclature of *Ninox scutulata* is reviewed, with three races considered valid. Peters is followed in admitting nine Palearctic races of the Barn Owl; Vaurie does not discuss the family status of *Tyto*, including it with Strigidae without comment.—K. C. P.
- White, C. M. N. 1960. Further notes on African warblers. Bull. Brit. Orn. Club, **80**: 147–152.—Subsp. nov.: *Camaroptera brachyura intercalata* south of Mwinilunga, Northern Rhodesia; *Eremomela scotops extrema*, Lungwevungu River, Northern Rhodesia. Other genera and species discussed.—E. E.

MISCELLANEOUS

- Friedmann, H. 1960. Changing environment of zoological research. Science, **131**: 590–593.—Support of research by foundations and by the federal government has greatly increased available funds, but has introduced undesirable pressure to work against a deadline. There is an unfortunate tendency to emphasize the project rather than the individual scientist when considering grants. Modern transportation methods make it possible for zoologists to do field work conveniently in previously almost inaccessible areas; new species may thus be available for experimental studies. There is an increasing tendency toward cooperation among specialists in various branches of zoology.—K. C. P.