

## RECENT LITERATURE

EDITED BY GLEN E. WOOLFENDEN

### BEHAVIOR

- AMADON, D. 1966. Confused nocturnal behavior of (?California) Gulls. *Condor*, **68**: 397-398.
- BECK, W. H. 1965. Association of a Pintail drake and a Mallard pair. *Blue Jay*, **23**: 121.
- BUCHANAN, O. M. 1966. Homosexual behavior in wild Orange-fronted Parakeets. *Condor*, **68**: 399-400.
- BURGER, G. V. 1966. Observations on aggressive behavior of male Ring-necked Pheasants in Wisconsin. *J. Wildl. Mgmt.*, **30**: 57-64.—Describes spring dispersal, crowing, and territorial behavior on a 1,100 acre study area. Territory size and definition and the presence of non-territorial males were affected by population density. Non-territorial males were distinguished from unmated males.—J.P.R.
- CRIST, B. A. 1966. Preferences for food by birds at a winter feeding station. *Wilson Bull.*, **78**: 233-234.
- DE BENEDICTIS, P. 1966. The flight song display of two taxa of Vermilion Flycatchers, genus *Pyrocephalus*. *Condor*, **68**: 306-307.
- ELLIS, C. R., JR. 1966. Agonistic behavior in the male Starling. *Wilson Bull.*, **78**: 208-224.
- ERSKINE, A. J. 1964. Nest-site competition between Bufflehead, Mountain Bluebird and Tree Swallow. *Canadian Field-Nat.*, **78**: 202-203.—Three species nested in the same nest cavity; in the end the Tree Swallow incubated the Bufflehead eggs.—R.W.N.
- FICKEN, M. S., AND R. W. FICKEN. 1966. Notes on mate and habitat selection in the Yellow Warbler. *Wilson Bull.*, **78**: 232-233.
- GREENHALGH, M. 1965. Rooks somersaulting on wires as a display. *Brit. Birds*, **58**: 511.
- HATCH, J. J. 1966. Collective territories in Galápagos Mockingbirds, with notes on other behavior. *Wilson Bull.*, **78**: 198-207.
- HESPENHEIDE, H. A. 1966. The selection of seed size by finches. *Wilson Bull.*, **78**: 191-197.
- HUTCHINSON, M. M. 1966. Mutual feeding by waxwings in winter. *Brit. Birds*, **59**: 157-158.
- JORDHEIM, S. O. 1965. Unusual feeding behavior of yellowlegs. *Blue Jay*, **23**: 25.—Greater Yellowlegs observed regularly dipping crickets in water prior to eating them, even though this required running 20 feet to the edge of the water.—R.W.N.
- KESSLER, F. W. 1964. Avian predation on pheasants wearing differently colored plastic markers. *Ohio J. Sci.*, **64**: 401-402.—Pheasants bearing yellow markers were killed by avian predators more often than those with red, white, or blue (in that order). This is interpreted to reflect a comparable sensitivity to these colors.—H.C.S.
- KING, B., F. NAYLER, AND F. WARDLE. 1966. Feeding and resting behavior of a Snowy Owl in Scilly. *Brit. Birds*, **59**: 108.
- MACKEY, J. P. 1965. Cooing frequency and permanence of pairing of Mourning Doves. *J. Wildl. Mgmt.*, **29**: 824-829.—Cooing frequencies were highest between nestings and lowest during brooding periods. Mates of four marked pairs stayed together throughout a nesting season; three pairs retained the same mates during two successive seasons.—J.P.R.

- MALONE, C. R. 1966. Regurgitation of food by Mallard ducks. *Wilson Bull.*, **78**: 227-228.
- MILLER, R. S. 1966. Territorial aggression between a dragonfly and hummingbird. *Blue Jay*, **24**: 19.
- MITCHELL, I. G. 1966. Courtship patterns in some species of *Coliusspasser*. *Ostrich*, **37**: 47-53.—Comparison between *Coliusspasser* and the Estrildinae of territorial flight, nest invitation, courtship, and solitary song. The author concludes that the similarities are due to relationship and not convergence.—M.A.T.
- MOYLE, P. 1966. Feeding behavior of the Glaucous-winged Gull on an Alaskan salmon stream. *Wilson Bull.*, **78**: 175-190.
- NILSSON, L. 1965. Observations of the spring behaviour of the Red-breasted Merganser. *Vår Fågelvärld*, **24**: 244-256.—During April and May a breeding population in southern Sweden used a communal display ground where they also preened, loafed and even roosted at night. Agonistic encounters (37 noted cases) and copulation with post-copulatory display (10 cases) are discussed in detail with respect to sequence of postures, etc. (In Swedish; English summary.)—M.D.F.U.
- PAULL, D. E. 1966. Long-tailed Duck somersaulting while bathing. *Brit. Birds*, **59**: 38.
- REYNOLDS, J. 1965. Feeding habits of Cattle Egrets. *Brit. Birds*, **58**: 509.
- ROSE, B. J. 1965. Notes on a Peregrine Falcon and Franklin's Gull encounter. *Blue Jay*, **23**: 163.
- SEALY, S. G. 1965. Interspecific nesting associations of some Arctic birds. *Blue Jay*, **23**: 168-169.
- SEALY, S. G. 1965. Redhead parasitising the nest of the American Bittern. *Blue Jay*, **23**: 172.
- SIMMS, C. 1966. Birds attacking lizards. *Brit. Birds*, **59**: 76-77.
- STONER, E. A. 1966. Crows warming themselves at a chimney. *Blue Jay*, **24**: 19.
- TATE, J., JR., AND D. J. TATE. 1966. Additional records of Whistling Swans feeding in dry fields. *Condor*, **68**: 398-399.
- VAN EE, C. A. 1966. Notes on the breeding behavior of the Blue Crane *Tetraptyeryx paradisea*. *Ostrich*, **37**: 23-29.—Records of six breeding pairs, five in the Bloemfontein Zoo and one in the wild.—M.A.T.
- WIENS, J. A. 1966. Notes on the distraction display of the Virginia Rail. *Wilson Bull.*, **78**: 229-231.

## DISEASES AND PARASITES

- BUSCHER, H. N. 1965. Dynamics of the intestinal helminth fauna in three species of ducks. *J. Wildl. Mgmt.*, **29**: 772-781.—In a sample of 500 Pintails, Gadwalls, and Shovelers, helminth species and degree of infection varied according to locality, season, and species and age of ducks. Factors influencing infections are discussed.—J.P.R.
- DAVIS, P. 1966. Puffinosis among Manx Shearwaters. *Brit. Birds*, **59**: 84-85.
- DIAMOND, A. W. 1966. Puffinosis among Manx Shearwaters. *Brit. Birds*, **59**: 82-84.
- JEFFERIES, D. J., AND I. PREST. 1966. Post-mortems of Peregrines and Lanners with particular reference to organochlorine residues. *Brit. Birds*, **59**: 49-64.—Residue in liver of 5.2 to 9.3 parts per million of dieldrin and heptachlor epoxide combined indicated as lethal range.—H.B.
- RUEGER, M. E., AND T. A. OLSON. 1966. Studies of potential avian, arthropod and mammalian hosts of mosquito-borne arboviruses in the Minnesota area. *Amer. J. Epidemiol.*, **83**: 33-37.

- SCHERER, W. F., C. C. SAINZ, J. DE MOCIAS, R. RUBIO-BNTO, T. MUIRA, R. W. DICKERMAN, D. W. WARNER, AND M. DYER. 1966. Serologic survey for neutralizing antibodies to eastern equine and western equine encephalitis viruses in man, wild birds, and swine in southern Mexico in 1961. *Amer. J. Trop. Med.*, **15**: 211-218.

## DISTRIBUTION AND ANNOTATED LISTS

- ALLEN, C. R. K. 1965. Seaside Sparrow, *Ammospiza maritima*, in Nova Scotia. *Canadian Field-Nat.*, **79**: 211-212.—First Canadian record, collected 21 February 1962.—R.W.N.
- ALLEN, C. R. K. 1965. A sight record of Gull-billed Terns in Nova Scotia. *Canadian Field-Nat.*, **79**: 212-213.—Two were closely observed on 2 August 1963; the second Canadian record.—R.W.N.
- ANDRLE, R. F., AND H. H. AXTELL. 1966. Curlew Sandpiper in Ontario. *Condor*, **68**: 300-301.
- AUSTIN, B. P., AND B. S. MILNE. 1966. Dusky Warbler in the Isles of Scilly. *Brit. Birds*, **59**: 112-113.—Third British record for this Siberian bird.—H.B.
- BECK, W. H. 1965. Second Poor-will specimen for Saskatchewan. *Blue Jay*, **23**: 82.
- BEHLE, W. H. 1966. Noteworthy records of Utah birds. *Condor*, **68**: 396-397.
- BELCHER, M. 1965. Status of the Scarlet Tanager in Saskatchewan. *Blue Jay*, **23**: 117-119.
- BELKNAP, J. B. 1966. The Turkey Vulture in northern New York. *Kingbird*, **16**: 92.—*Cathartes aura* is now seen regularly in the St. Lawrence region, suggesting the possibility of nesting.—E.E.
- BENNING, W. E. 1966. 1965 heronry survey. *Kingbird*, **16**: 79-80.—Survey of localities in New York state where Great Blue Herons (*Ardea herodias*) were found nesting in 1964 and 1965. None were reported from extreme southeastern New York.—E.E.
- BENSON, C. W., AND M. P. S. IRWIN. 1966. The Bronze-naped Pigeon, *Columba delagorguei* (Delagorgue), in Rhodesia. *Arnoldia* (Rhodesia), **2**(23): 4 pp.—First record for Rhodesia and a review of races; *C. d. sharpei* is considered valid.—M.A.T.
- BENSON, C. W., AND M. P. S. IRWIN. 1966. Some Intra-African migratory birds, III. Puku, **4**: 49-56.—The African Rail Heron, *Ixobrychus sturmi*, is a breeding migrant in the southern part of its range.—M.A.T.
- BINNIE, A. 1965. Parula Warbler recorded near Regina. *Blue Jay*, **23**: 170.
- BLOOD, D. A. 1964. Notes on the birds of Riding Mountain National Park, Manitoba. *Canadian Field-Nat.*, **78**: 204-205.
- BOURGUIGNON, A. E. 1964. Piping Plover in Ottawa, Ontario. *Canadian Field-Nat.*, **78**: 199.
- BRAZIER, F. H. 1965. First Saskatchewan record of the Ruff. *Blue Jay*, **23**: 120-121.
- BRAZIER, F. H. 1965. Black-throated Gray Warbler—a Saskatchewan first. *Blue Jay*, **23**: 123-124.
- BRAZIER, F. H. 1965. A Myrtle Warbler nesting record for Regina. *Blue Jay*, **23**: 125-126.
- BRAZIER, F. H. 1966. Saskatchewan's first specimen of the Blue-winged Warbler. *Blue Jay*, **24**: 9-10.
- BROOKE, R. K. 1966. A preliminary list of the birds of the Kafue National Park. Puku, **4**: 57-86.—A list of species, with notes on distribution and abundance.—M.A.T.

- CLARK, C. F. 1964. Bird records from the vicinity of Lake St. Mary, Mercer and Auglaize counties, Ohio. *Ohio J. Sci.*, **64**: 25-26.—A list of 17 unusual species observed over 19 years.—H.C.S.
- CRUICKSHANK, A. D. *et al.* 1966. Sixty-sixth Christmas bird count. *Aud. Field Notes*, **20**: I-XVI, 99-389.—All 50 states and most Canadian provinces were covered by 795 counts; 18 counts listed 150 or more species (California, Texas, Florida, South Carolina, and Alabama). Cocoa, Florida, led with 197 species; two counts from California and one from Texas also exceeded 190 species. B. L. Monroe, Jr., summarizes the areas recording largest number of individuals of each species.—E.E.
- CUELLO, J. 1966. First specimens of *Buteo albicaudatus* and *Chordeiles minor* in Uruguay. *Condor*, **68**: 301.
- CUNNINGHAM, R. L. 1966. A Florida winter specimen of *Dendroica petechia gundlachi*. *Wilson Bull.*, **78**: 232.
- DAVIS, D. W. 1966. Some observations of birds at Cree Lake, Saskatchewan. *Blue Jay*, **24**: 80-85.
- DENT, A. C., AND C. W. BENSON. 1966. The Grey Wagtail in Malawi. *J. Soc. Malawi*, **19**: 20.—First record of *Motacilla cinerea* from south of northern Tanzania.—M.A.T.
- DRENT, R., G. F. VAN TETS, F. TOMPA, AND K. VERMEER. 1964. The breeding birds of Mandarte Island, British Columbia. *Canadian Field-Nat.*, **78**: 208-263.—Distribution and numbers of the ten species presently breeding are described on the basis of six summers of observation. Statistics on breeding season, nesting success, and related topics given for *Phalacrocorax auritus*, *P. pelagicus*, *Haemantopus bachmani*, *Larus glaucescens*, *Cephus columba*, *Corvus caurinus*, and *Melospiza melodia*.—(From authors' summary.)
- ELLIOTT, C. 1966. An extension of the known range of the Poor-will in Saskatchewan. *Blue Jay*, **24**: 7-8.
- ERSKINE, A. J. 1964. New bird records from Cape Breton Island, Nova Scotia. *Canadian Field-Nat.*, **78**: 89-92.
- FRENETTE, B. 1966. Hawk Owl in Adirondacks. *Kingbird*, **16**: 91.
- GODFREY, W. E. 1965. Range extensions of some birds in western Mackenzie. *Canadian Field-Nat.*, **79**: 34-38.
- GODFREY, W. E. 1965. An erroneous record of the Gray-cheeked Thrush in Saskatchewan. *Canadian Field-Nat.*, **79**: 155-156.—A supposed breeding record for the Churchill River (1914) was based on misidentification of a specimen.—R.W.N.
- GODFREY, W. E. 1966. The supposed nesting of the Slaty-backed Gull in Canada. *Canadian Field-Nat.*, **80**: 48-49.—Invalidates an early and solitary record of this species.—R.W.N.
- GRANT, J. 1966. A Black Swift nest in British Columbia. *Canadian Field-Nat.*, **80**: 60-61.
- HARWIN, R. M., AND M. P. S. IRWIN. 1966. The spread of the House Sparrow, *Passer domesticus*, in south-central Africa. *Arnoldia* (Rhodesia), **2**(24): 17 pp.—An account of the explosive expansion of *P. domesticus* since 1955; the race involved is *indicus*, although the nominate race has twice been successfully introduced. First released around 1900 at Durban, *indicus* slowly colonized Natal, and did not cross the Drakensbergs until 1949. By 1953 it had reached central Transvaal, and after a short lull spread through Rhodesia, eastern Bechuanaland, southern Mozambique, and southern Zambia by 1965. Its dispersal has not been dependent upon man and it has reached localities across 100 miles of waterless terrain. Study of this remarkable expansion is continuing.—M.A.T.

- HATCH, D. 1965. Mockingbirds at Oak Lake, Manitoba. *Blue Jay*, **23**: 20.
- HATCH, D. R. M. 1965. Orchard Orioles at Oak Lake, Manitoba. *Blue Jay*, **23**: 161-162.
- HAYWARD, C. L. 1966. New and unusual bird records from Utah. *Condor*, **68**: 305-306.
- HOUSTON, C. S. 1966. Breeding records of the giant Canada Goose near Yorkton, Saskatchewan. *Blue Jay*, **24**: 71-72.
- JOHNSON, R. E. 1966. Alpine birds of the Little Belt Mountains, Montana. *Wilson Bull.*, **78**: 225-227.
- JOHNSTONE, W. B. 1964. Two interior British Columbia records for the Ancient Murrelet. *Canadian Field-Nat.*, **78**: 199-200.
- JOKI, J., AND P. SULKAVA. 1966. [Snow Goose at Pyhäjoki, W. Finland.] *Ornis Fennica*, **43**: 27.—Between 20 May and 2 June 1965 an individual *Anser caerulescens* stayed in west Finland on a marshy meadow near the shore. A photo of the bird in flight accompanies the note. (In Finnish; English summary.)—M.D.F.U.
- KRPAN, M. 1965. Die Vögel der Insel Vis und ihr benachbarter Inselchen. *Larus*, **16-18**: 106-150.—Faunistic and breeding data are discussed for birds from the Dalmatian archipelago of the Adriatic. The breeding data for *Puffinus kuhlii*, *Hydrobates pelagicus*, and *Falco eleonora* have major zoogeographical significance. (In Serbocroatian; German summary.)—M.D.F.U.
- KUYT, E. 1965. A breeding record of the Starling at Lookout Point, Northwest Territories. *Blue Jay*, **23**: 83-84.
- LEITCH, W. G. 1964. Black Duck breeding record for Alberta. *Canadian Field-Nat.*, **78**: 199.
- LEWIN, V. 1965. A new northern record for the Mockingbird, *Mimus polyglottos*. *Canadian Field-Nat.*, **79**: 208.—At Edmonton, Alberta, 25 October 1963.—R.W.N.
- LOWTHER, J. K. 1964. A probable breeding record of the Bobolink at Vermilion, Alberta. *Canadian Field-Nat.*, **78**: 200.
- LOWTHER, J. K. 1964. Harris' Sparrow in Quebec. *Canadian Field-Nat.*, **78**: 200-201.
- MACGILLIVRAY, H. D. 1965. Breeding of the Mockingbird, *Mimus polyglottos*, in Newfoundland. *Canadian Field-Nat.*, **79**: 209-211.
- MCLAREN, I. A. 1966. Short-eared Owl in southern Baffin Island. *Canadian Field-Nat.*, **80**: 61-62.
- MCNICHOLL, M. 1965. A possible sight record of the Black-headed Grosbeak in Manitoba. *Blue Jay*, **23**: 77-78.
- NERO, R. W. 1965. Williamson's Sapsucker found in southeastern Saskatchewan. *Blue Jay*, **23**: 123.
- NERO, R. W. 1965. Two possible records of Barrow's Goldeneye in Saskatchewan. *Blue Jay*, **23**: 127.
- OHMART, R. D. 1966. Breeding record of the Cassin Sparrow (*Aimophila cassinii*) in Arizona. *Condor*, **68**: 400.
- PARSLOW, J. L. F. 1966. American Robins in the Isles of Scilly. *Brit. Birds*, **59**: 41-42.—Two, in December, 1963.—H.B.
- POST, P. W. 1966. Photographs of New York state rarities. 5. Magnificent Frigatebird. *Kingbird*, **16**: 66-67.—Reviews records and reports in New York, the most recent of which is one photographed 18 September 1965.—E.E.
- POYNTER, G. A. 1965. Black-throated Gray Warblers on Vancouver Island. *Blue Jay*, **23**: 165.

- PUGH, E. A. 1966. Cedar Waxwing nesting in southern California. *Condor*, **68**: 307-308.
- ROSE, B. J. 1965. Green-tailed Towhee in North Dakota. *Blue Jay*, **23**: 167.
- RYDER, J. P. 1965. The Barn Swallow in the central Canadian arctic. *Canadian Field-Nat.*, **79**: 155.
- SALT, W. R. 1966. Some unusual bird records from the Peace River district. *Canadian Field-Nat.*, **80**: 114-115.
- SEALY, S. G. 1966. New nesting records and clarification of breeding status of some birds in the Perry River area, Northwest Territories. *Canadian Field-Nat.*, **80**: 116-117.
- SHANTZ, B. R. 1966. Greater Prairie Chicken in southern Alberta. *Blue Jay*, **24**: 78.
- SMITH, J. L. 1966. The Gray Jay in Saskatchewan. *Blue Jay*, **24**: 65-70.
- SOPER, J. D. 1965. Recent additions to the list of Jasper National Park birds. *Canadian Field-Nat.*, **79**: 214-215.
- SOPER, J. D. 1965. Additional bird species recorded in Waterton Lakes National Park, Alberta. *Canadian Field-Nat.*, **79**: 215-217.
- SPENCE, B. R., AND J. CUDWORTH. 1966. Song Sparrow in Yorkshire. *Brit. Birds*, **59**: 198-201.—Second European record, 18 May 1964.—H.B.
- STEWART, R. E. 1966. Notes on birds and other animals in the Slave River-Little Buffalo River area, N.W.T. *Blue Jay*, **24**: 22-32.—Results of a biological reconnaissance 20 May through 20 June 1955; includes many data on population-habitat surveys.—R.W.N.
- STIRLING, D. 1966. Summer birds wintering on southern Vancouver Island. *Canadian Field-Nat.*, **80**: 45-47.
- STIRLING, D., AND F. BUFFARN. 1966. The first breeding record of Brandt's Cormorant in Canada. *Canadian Field-Nat.*, **80**: 117-118.—A colony of *Phalacrocorax penicillatus* with 110 nests was found 26 July 1965 on top of an islet in a bay of Vancouver Island.—R.W.N.
- STREET, M. G. 1965. Lark Sparrow breeding at Nipawin. *Blue Jay*, **23**: 26-27.—Several pairs nested in 1964 at this locality on the edge of the boreal forest.—R.W.N.
- SYMONS, R. D., AND R. W. NERO. 1965. Black-headed Grosbeak breeding record for south-central Saskatchewan. *Blue Jay*, **23**: 72-76.
- TAYLOR, R. 1966. The Red-headed Woodpecker in Saskatchewan, its status and distribution. *Blue Jay*, **24**: 56-64.
- VASS, S. E. 1965. Gull breeding records from Prince Edward Island. *Canadian Field-Nat.*, **79**: 152-154.
- WEST, G. C., AND C. M. WHITE. 1966. Range extensions and additional notes on the birds of Alaska's arctic slope. *Condor*, **68**: 302-304.
- WIENS, J. A. 1966. A specimen of the Vermilion Flycatcher from Oklahoma. *Condor*, **68**: 398.
- WOLF, L. L. 1966. Notes on Costa Rican birds. *Condor*, **68**: 400-401.
- WRIGHT, P. A., AND W. R. P. BOURNE. 1966. Needle-tailed Swift in Co. Cork. *Brit. Birds*, **59**: 109-110.—First record for Ireland and fifth for Europe of this Far Eastern species.—H.B.

## ECOLOGY AND POPULATION

- ATTWELL, R. I. G. 1966. Oxpeckers, and their associations with mammals in Zambia. *Puku*, **4**: 17-48.—Detailed account of the complicated relationships between *Buphagus erythrorhynchus* and *B. africanus* and their mammalian hosts; these birds are largely sympatric and frequently feed together on the same herds or the same

- individual animal. Thus far no significant differences in diet, habits, or ecology have been discovered!—M.A.T.
- ATTWELL, R. I. G. 1966. Possible bird-crocodile commensalism in Zambia. Ostrich, **37**: 54-55.—The inter-relationships of both *Burhinus vermiculatus* and *Xiphidi-  
opterus albiceps* with crocodiles are described. The evidence indicates commensal relationships for both bird species with the reptile.—M.A.T.
- BISHOP, R. A., AND C. R. HUNGERFORD. 1965. Seasonal food selection of Arizona Mearns Quail. J. Wildl. Mgmt., **29**: 813-819.—Bulbs and tubers of *Oxalis* and *Cyperus* dug from the ground form much of the diet of this quail. Seasonal drought and overgrazing appear to limit populations.—J.P.R.
- CLANCEY, P. A. 1966. The South African races of *Bradornis pallidus* (Müller). Ostrich, **37**: 37-41.—Three races recognized and *B. p. sibilans*, a new subspecies, is described from Hluhluwe, Zululand.—M.A.T.
- CLANCEY, P. A., AND M. P. S. IRWIN. 1966. The South African races of the Banded Sand Martin *Riparia cincta* (Boddaert). Durban Mus. Novit., **8**: 25-33.—Three races recognized in southern Africa, of which *R. c. xerica*, Calai, Angola, is newly described.—M.A.T.
- GOLLOP, J. B. 1965. Snowy Owls and Gray Partridge near Saskatoon in the winter of 1963-1964. Blue Jay, **23**: 28-31.—Snowy Owls did not concentrate in areas of high partridge populations; this may indicate that partridge were not an important food source for many Snowy Owls.—R.W.N.
- GRANT, P. R. 1966. Preliminary experiments on the foraging of closely related species of birds. Ecology, **47**: 148-151.—A comparative study of foraging behavior and interactions of *Melospiza melodia*, *M. georgiana*, and *Zonotrichia albicollis*, based on observations of birds in the wild and in experimental cages. Interactions between the species and differences in their foraging behavior may serve to eliminate competition.—H.W.K.
- GRENUST, P. 1965. Changes in abundance of some duck and sea-bird populations off the coast of Finland 1949-1963. Finnish Game Res., **27**: 1-114.
- GRENUST, P. 1966. A summary of changes in abundance of Finnish duck and sea-bird populations in four southern archipelago areas 1950-1962 and some causes influencing them. Finnish Game Res., **28**: 1-8.—Annual censuses, brood counts, mortality, and other ecological data are presented in the 1965 paper (*q.v.*). The hard winters of 1955-1956 and, to a lesser extent, 1962-1963 resulted in the starvation of many ducks. Delayed laying because of late springs, and disease during the summers that followed contributed to the decline. Gulls were not affected by these climatic fluctuations and their numbers increased steadily.
- The 1966 paper adds important data and conclusions pertaining to topics such as hunting seasons and protection.—M.D.F.U.
- HEIN, D. 1966. Float counts vs flight counts as indices to abundance of nesting Wood Ducks. J. Wildl. Mgmt., **30**: 13-16.—Counts of flying ducks at the mouths of streams in northeast Iowa were superior to counts made during canoe trips along the same streams.—J.P.R.
- HOLMES, R. T. 1966. Feeding ecology of the Red-backed Sandpiper (*Calidris alpinus*) in arctic Alaska. Ecology, **47**: 32-45.—An important paper on the Dunlin which feeds largely on larvae and adults of the families Tipulidae and Chironomidae (Diptera) in the arctic. Food availability influences habitat selection, local population movements, departure times, and other activities. Differences between adults and young in habitat and food selection in late summer result in apportionment of the food supply in a critical part of the season.—H.W.K.

- JONES, P. H. 1966. The bird population succession at Newborough Warren. *Brit. Birds*, **59**: 180-190.—Study of the change in bird life following afforestation of duneland.—H.B.
- KEITH, L. B. 1965. Early notes on wildlife from New Sarepta, Alberta. *Canadian Field-Nat.*, **79**: 29-34.—Includes data on waterfowl migration and populations of grouse, pheasant, partridge, and crows for the period 1907-42.—R.W.N.
- KOBRIGER, G. D. 1965. Status, movements, habitats, and foods of prairie grouse on a sandhills refuge. *J. Wildl. Mgmt.*, **29**: 788-800.—Sharp-tails maintained high populations but prairie chickens were much less numerous. Movements of color-marked grouse are described. Mowed wetland was most important for breeding and feeding grounds.—J.P.R.
- LUMSDEN, H. G. 1964. The Rock Ptarmigan, *Lagopus mutus ruprestis*, in Ontario and Manitoba. *Canadian Field-Nat.*, **78**: 161-167.—A summary of the history of the discovery of *Lagopus mutus* in the Hudson Bay area with information on its present status.—R.W.N.
- LUMSDEN, H. G. 1966. The prairie chicken in southwestern Ontario. *Canadian Field-Nat.*, **80**: 33-45.—Discusses the extent of the prairies in southwestern Ontario prior to intensive cultivation and settlement and the history of the spread and decline of prairie chickens there.—R.W.N.
- MACDONALD, J. E. 1965. A bird census in red pine plantations and mixed stands in Kirkwood Township, Ontario. *Canadian Field-Nat.*, **79**: 21-25.
- MARTINSON, R. K., AND C. R. GRONDAHL. 1966. Weather and pheasant populations in southwestern North Dakota. *J. Wildl. Mgmt.*, **30**: 74-81.—Cool, wet weather in May and June enhanced survival in this semi-arid region. Such weather generally affects pheasant populations adversely in less arid regions.—J.P.R.
- RANSON, A. B. 1965. Observations of a Ruffed Grouse decline. *Canadian Field-Nat.*, **79**: 128-130.—Brief notes on a severe die-off in the Turtle Mountain area, Manitoba.—R.W.N.
- REES, E. I. S. 1965. The feeding range of Shags. *Brit. Birds*, **58**: 508-509.
- RUCNER, R. 1965. Die Beziehungen zwischen der mediterranen Vegetation und den mediterranen Elementen der Ornithofauna der Balkanhalbinsel. *Larus*, **16-18**: 79-105.—The Mediterranean faunal elements are correlated in their distribution with the zones of Mediterranean vegetation as defined by modern vegetation geographers. Included is an interesting discussion on the penetration of these faunal elements into Central European, deciduous forest and scrub formations where the local climate creates favorable conditions for their existence. (In Serbocroatian; German summary.)—M.D.F.U.
- TOWNSEND, G. H. 1966. A study of waterfowl nesting on the Saskatchewan River delta. *Canadian Field-Nat.*, **80**: 74-88.—An evaluation of factors influencing nesting success in a floating-sedge habitat.—R.W.N.
- USPENSKII, S. M. 1965. *Die Wildgänse Nordeasiens*. Wittenberg, Lutherstadt: A. Ziemsen (Die Neue Brehm-Bücherei no. 352), 80 pp., illus., paper covers. 6.80 E. German Marks.—Well illustrated accounts of the eight goose species of the northern Palearctic area; maps relate distributions of the various geese to major biotic communities such as forest tundra, grassy tundra, moss-and-lichen tundra. (Originally published in Russian.)—R.S.P.
- VASS, S. E. 1964. Changing status of the cowbird in Prince Edward Island. *Canadian Field-Nat.*, **78**: 125.—Rare prior to 1960, *Molothrus ater* is now frequently observed.—R.W.N.
- VERNER, J., AND M. F. WILLSON. 1966. The influence of habitats on mating systems



of North American passerine birds. *Ecology*, **47**: 143-147.—A discussion of factors underlying polygynous matings. Of 291 species of North American passerines, 14 are polygynous or promiscuous; 13 of these breed in marshes, prairies, or savannah-like habitats where productivity is greater. It may be more advantageous for several females to mate with one male on a more productive territory than with an unmated male on a poorer territory.—H.W.K.

## EVOLUTION AND GENETICS

- AMADON, D. 1966. Avian plumages and molts. *Condor*, **68**: 263-278.
- ASH, J. S. 1966. Some mutations of the Partridge and Red-legged Partridge. *Brit. Birds*, **59**: 15-22.
- BAKER, H. G., AND G. L. STEBBINS (eds.). 1965. The genetics of colonizing species. New York, Academic Press, 588 pp.—Of interest to anyone studying evolutionary processes. One chapter and the general summary are by E. Mayr.—D.A.
- HALL, B. P., R. E. MOREAU, AND I. C. J. GALBRAITH. 1966. Polymorphism and parallelism in the African Bush-shrikes of the genus *Malaconotus* (including *Chlorophoneus*). *Ibis*, **108**: 161-182.—A remarkable case of parallelism in color and plumage pattern between the sub-genera *Malaconotus* and *Chlorophoneus* is described by Hall and Moreau in part 1. The patterns of the monomorphic species of the large billed *Malaconotus* parallel the phases of the polymorphic species of the small billed *Chlorophoneus*, and this parallelism extends to the ecologic preferences of each phase. It is postulated that the two subgenera descended from a single polymorphic ancestor, but that in *Malaconotus* subsequent selection pressures favored only a single phase for each species, while in *Chlorophoneus* balanced polymorphism proved advantageous. In part 2, Galbraith discusses the possible genetic mechanisms necessary to produce the six color phases of *Chlorophoneus* and the theoretical implications of the difference in the incidence of polymorphism between the two sub-genera.

An excellent study of an exceedingly complex problem, which must be read by anyone with an interest in speciation, polymorphism, or genetics.—M.A.T.

- JOHNSTON, R. F. 1966. The adaptive basis of geographic variation in color of the Purple Martin. *Condor*, **68**: 219-228.

## GENERAL BIOLOGY

- BARBIER, P. G. R. 1966. Blackbird feeding young on dead leaves. *Brit. Birds*, **59**: 77-78.
- BARD, F. G., AND F. W. LAHRMAN. 1965. Sandhill Cranes flying with feet drawn up. *Blue Jay*, **23**: 121.
- BENTHAM, H. 1966. Spotted Flycatcher laying six eggs over thirteen or more days. *Brit. Birds*, **59**: 156.
- BIRD, R. D., AND L. B. SMITH. 1964. The food habits of the Red-winged Blackbird, *Agelaius phoeniceus*, in Manitoba. *Canadian Field-Nat.*, **78**: 179-186.
- BOSWALL, J. 1966. New Palaearctic bird sound recordings in 1964-65. *Brit. Birds*, **59**: 27-37.—Additions to the discography of European species, listed by both recorder and avian species.—H.B.
- BOSWALL, J. 1966. Pied Wagtails roosting inside greenhouses. *Brit. Birds*, **59**: 100-106.—Communal roosts of tens to hundreds recorded from 22 sites.—H.B.
- BRAKHAGE, G. K. 1965. Biology and behavior of tub-nesting Canada Geese. *J. Wildl. Mgmt.*, **29**: 751-771.—Reports on a three-year study of sedentary flock of *Branta canadensis maxima* in Missouri. Details of pairing, territory, nesting, and brood rearing are discussed, and comparisons are made with other related sub-

- species. Tub-nesting females were more productive than ground nesters; this was the primary reason for the success of the flock.—J.P.R.
- CAMPBELL, B. 1966. Turnstones scavenging after Oystercatchers. *Brit. Birds*, **59**: 151-152.
- DOWSETT, R. J. 1966. The moulting pattern of European Swallows, *Hirundo rustica*, wintering in eastern Zambia. *Puku*, **4**: 91-100.—Timing of molt of *Hirundo rustica* in Zambia is intermediate between populations of the Congo and Cape Province.—M.A.T.
- ELLIS, J. A., AND R. F. LABISKY. 1966. Soft-shelled eggs in a Bobwhite nest. *Wilson Bull.*, **78**: 229.
- ENGLAND, M. D. 1966. Great Bustards in Portugal. *Brit. Birds*, **59**: 22-27.—Some nesting observations, with photos of habitat, nest, incubating female, and chicks.—H.B.
- FEARE, C. J. 1966. The winter feeding of the Purple Sandpiper. *Brit. Birds*, **59**: 165-179.
- FITTER, R. S. R. 1965. The breeding status of the Black Redstart in Great Britain. *Brit. Birds*, **58**: 481-492.
- GATES, J. M. 1966. Validity of spur appearance as an age criterion in the pheasant. *J. Wildl. Mgmt.*, **30**: 81-85.—The spur appearance technique is based on subjective criteria which individuals interpret so differently that the results are highly divergent. Age ratios should be obtained by the bursal method whenever possible.—J.P.R.
- GORDON, S. 1966. Heron swallowing female Blackbird. *Brit. Birds*, **59**: 37.
- GRANT, P. R. 1966. Late breeding on the Tres Mariás Islands. *Condor*, **68**: 249-252.
- HILDÉN, O. 1966. Über die Brutbeteiligung der Geschlechter beim Mornellregenpfeifer, *Charadrius morinellus* L. *Ornis Fennica*, **43**: 16-19.—Until recently the literature has stated that the male Dotterel takes over incubation duties from the female, as in phalaropes. Hildén, who caught and banded both parents at a nest during the hatching of the brood, suggests that the surmisedly polyandric female returns to her first clutch and male and, if the clutch has not yet hatched, partakes in the last phase of incubation. More observations of such intricate reproductive systems are necessary. (In German; Finnish summary.)—M.D.F.U.
- HOSFORD, H. 1965. Breeding success of the White Pelican in two colonies in Manitoba in 1964. *Blue Jay*, **23**: 21-24.
- KILHAM, L. 1966. Nesting activities of Black-backed Woodpeckers. *Condor*, **68**: 308-310.
- KUYT, E. 1966. Further observations on large Canada Geese moulting on the Thelon River, Northwest Territories. *Canadian Field-Nat.*, **80**: 63-69.—Populations of *Branta canadensis* which breed in the United States and Canada have in recent years regularly moved northward to the Thelon River prior to undergoing moult. Evidently two races, *B. c. moffitti* and *B. c. maxima*, are involved.—R.W.N.
- LATTA, W. C., AND R. F. SHARKEY. 1966. Feeding behavior of the American Merganser in captivity. *J. Wildl. Mgmt.*, **30**: 17-23.—Experiments with eight mergansers indicated that fish of 5 to 6.5 inches in girth were the largest that could be swallowed. Smaller fish of the most available species were eaten first.—J.P.R.
- LESSER, C. A. 1966. Record of Mourning Dove kill by American Kestrel. *Wilson Bull.*, **78**: 228-229.
- LIES, M. F., AND W. H. BEHLE. 1966. Status of the White Pelican in the United States and Canada through 1964. *Condor*, **68**: 279-292.

- MESLOW, E. C., AND L. B. KEITH. 1966. Summer food habits of Red-tailed Hawks near Rochester, Alberta. *Canadian Field-Nat.*, **80**: 98-100.
- McFARLAND, L. Z., AND H. GEORGE. 1966. Preference of selected grains by geese. *J. Wildl. Mgmt.*, **30**: 9-13.—Of seven grains tested, geese preferred those with lower protein content and higher nutritive value (rice and millet).—J.P.R.
- MIKKOLA, K., AND P. KOIVUNEN. 1966. Über die Brutbiologie und das Vorkommen der Zwergammer (*Emberiza pusilla* Pall.) in Finland. *Ornis Fennica*, **43**: 1-12.—It is thought that this taiga bird has nested in small numbers in Lapland for a long time, but had been overlooked until 1935. Considerable increase in numbers has been shown, especially since the late 1950's. Breeding biology was observed at one nest; incubation, from last egg laid to last young hatched, took  $11 \pm \frac{1}{2}$  days and fledging occurred at 13 days. Thus the total time required to raise the young is very short, and the young are capable of moving about, if not flying, in the ground vegetation at an early age. (In German; Finnish summary).—M.D.F.U.
- MORLEY, J. V. 1966. The moult migration of shelducks from Bridgewater Bay. *Brit. Birds*, **59**: 141-147.
- ORIAN, G. H. 1966. Food of nestling Yellow-headed Blackbirds, Cariboo Parklands, British Columbia. *Condor*, **68**: 321-337.
- PARSLOW, J. L. F. 1966. Hole-nesting by Guillemots. *Brit. Birds*, **59**: 120-121.
- PAUL, W. A. B. 1964. Notes on Townsend's Solitaire in Western Chilcotin District, British Columbia. *Canadian Field-Nat.*, **78**: 203-204.—Summarizes breeding and nesting data based on 14 years of observation and 75 nests.—R.W.N.
- PAULL, D. E. 1966. Mated feral pigeons incubating at two nests simultaneously. *Brit. Birds*, **59**: 194-195.
- PIVAR, G. 1965. Die biologisch-ökonomische Bedeutung der Saatkrähe, *Corvus f. frugilegus* L., für die Getreidekulturen in Ost-Slawonien. *Larus*, **16-18**: 159-280.—Census of Rook colonies, and discussion of breeding biology and, especially, feeding habits, the latter with respect to its importance on farmlands. (In Serbo-croatian; German summary).—M.D.F.U.
- POWER, H. W., III. 1966. Biology of the Mountain Bluebird in Montana. *Condor*, **68**: 351-371.
- SAUNDERS, R. E. 1965. Juvenile Moorhen feeding on dead gull. *Brit. Birds*, **58**: 509.
- SEALY, S. G. 1965. Marsh Hawk preys on cottontails. *Blue Jay*, **23**: 25.—Remains of 10 adult cottontails (*Sylvilagus nuttallii*) were found at a nest 40 feet out in a cattail marsh.—R.W.N.
- SEALY, S. G. 1965. Unusually large brood size of the Saw-whet Owl. *Blue Jay*, **23**: 84.—Nine young were found in a nest cavity at Battleford, Saskatchewan.
- SKUTCH, A. F. 1966. Life history notes on three tropical American cuckoos. *Wilson Bull.*, **78**: 139-165.
- STROMAR, L. 1965. Bird banding in 1961 and 1962. *Larus*, **16-18**: 5-37.—A report of the Ornithological Department of Zagreb University, Yugoslavia, where 8,695 and 11,906 birds were banded in the respective years. Recoveries and foreign re-trapped birds are also reported. (In Serbo-croatian, English summary).—M.D.F.U.
- SWANBERG, P. O. 1965. Studies of less familiar birds: Great Snipe. *Brit. Birds*, **58**: 504-508.—Data on field characters, distribution, habitat, and display; nine excellent photos.—H.B.
- TICKLE, W. H. 1966. Swifts roosting on poles. *Brit. Birds*, **59**: 75.
- TREVOR, E. M. 1965. House Martins apparently taking insects from ground. *Brit. Birds*, **58**: 511.
- TURNER, M. G. 1966. Blue Tit feeding mate with snail shell. *Brit. Birds*, **59**: 78.

- TURNER, M. G. 1966. House Sparrows regularly eating hive bees. *Brit. Birds*, **59**: 158-159.
- WALKINSHAW, L. H. 1965. Sandhill Crane studies on Banks Island, Northwest Territories. *Blue Jay*, **23**: 66-72.
- WALLEY, H. D. 1966. The Carolina Parakeet in Illinois. *Wilson Bull.*, **78**: 231-232.
- WHEELER, R. J. 1966. An unusually long incubation period of the Mallard. *Condor*, **68**: 301.
- WHITE, M., AND S. W. HARRIS. 1966. Winter occurrence, foods and habitat use of snipe in northwest California. *J. Wildl. Mgmt.*, **30**: 23-34.—Wintering *Capella gallinago* fed chiefly on terrestrial insects obtained on upland pastures. Salt marsh islands were much used for loafing and preening, and snipe regularly flew from these to feeding areas.—J.P.R.
- WILSON, J., AND M. GREENHALGH. 1965. Lesser Black-backed Gulls fishing regularly for eels. *Brit. Birds*, **58**: 510-511.
- WINTERBOTTOM, M. G. 1966. A study of the Cape Thrush *Turdus olivaceus* L. Ostrich, **37**: 17-22.—A study of the breeding population in the Cape Town Public Gardens.—M.A.T.
- YOCOM, C. F., AND S. W. HARRIS. 1965. Plumage descriptions and age data for Canada Goose goslings. *J. Wildl. Mgmt.*, **29**: 874-877.—Eight stages of plumage development, useful for field aging, are described for goslings of *Branta canadensis moffitti*.—J.P.R.

## JOURNAL (ENTIRE ISSUE)

ORNITOLOGIYA. 1965. **7**: 514 pp.—The latest number of the Russian annual Journal of ornithology, ably edited by Professor V. F. Larionov of Moscow University, consists of 56 articles and about the same number of shorter communications. The articles are grouped in 10 categories on the basis of subject matter or of the zones in which the birds discussed occur, such as the forests, steppes, mountains, etc. Some papers deal with aspects of bird migration, life history, or distribution, but the great bulk are devoted to ecology, a study in which the modern Russian ornithologists excel. Two or three papers discuss geographical variation, but only one is primarily taxonomic and describes a new species of fossil Eagle Owl (*Bubo binagadensis*) from Azerbaijan. Professor Larionov has told me that he hopes some day to furnish English summaries for the more important papers. He has not achieved this yet, but he has taken a big step by furnishing for the first time in *Ornitologiya* a complete table of contents in English. To anyone interested in the biology of the birds of the Soviet Union, or of the northern part of the Palearctic Region, this annual is essential.—C.V.

## MANAGEMENT AND CONSERVATION

- COOK, R. S., AND D. O. TRAINER. 1966. Experimental lead poisoning of Canada Geese. *J. Wildl. Mgmt.*, **30**: 1-8.—Reports the course of the lead and the disease, along with gross and histopathological symptoms. Significance of poisoning is discussed.—J.P.R.
- EINARSEN, A. S. 1965. Black Brant/Sea Goose of the Pacific Coast. Seattle, Univ. of Washington Press. xviii + 142 pp., illus. Cloth, \$5.00.—Although easy to read, this book does not incorporate many of the existing data on *Branta bernicla nigricans* or its related subspecies. Short on biology this book may appeal to brant hunters and, to some extent, game management personnel.—R.S.P.
- GOODHUE, L. D., AND F. M. BAUMGARTNER. 1965. Applications of new bird control chemicals. *J. Wildl. Mgmt.*, **29**: 830-837.—Nuisance populations of House

- Sparrows, pigeons, and Starlings were controlled with grain treated with 4-nitropyridine-N-oxide (Avitrol 100) and 4-aminopyridine (Avitrol 200). Control was obtained partly by reactions of affected birds which disturbed the flocks and partly by mortality from the toxic bait.—J.P.R.
- GULLION, G. W. 1966. A viewpoint concerning the significance of studies of game bird food habits. *Condor*, **68**: 372-376.
- HARTUNG, R. 1965. Some effects of oiling on reproduction of ducks. *J. Wildl. Mgmt.*, **29**: 872-874.—Ingestion of oil temporarily inhibited egg laying, and the oil smeared feathers of incubating birds sharply reduced the hatchability of their eggs.—J.P.R.
- SMITH, R. H., AND S. GALLIZIOLLI. 1965. Predicting hunter success by means of a spring call count of Gambel Quail. *J. Wildl. Mgmt.*, **29**: 806-813.—Spring call counts are related to spring population levels and reproductive success in Arizona.—J.P.R.
- THOMAS, J. W., C. VAN HOOZER, AND R. G. MARBURGER. 1966. Wintering concentrations and seasonal shifts in range in the Rio Grande Turkey. *J. Wildl. Mgmt.*, **30**: 34-49.—Winter concentrations ranged from one bird per 8.2 acres to one per 17.9 acres in three areas on the Edwards Plateau in Texas. Banding showed that birds dispersed over 400,000 acres in spring. Individuals were faithful to particular wintering areas. Recommendations pertaining to hunting seasons and harvests are made.—J.P.R.
- WILLIAMS, L. E., JR. 1966. Capturing wild Turkeys with alpha-chloralose. *J. Wildl. Mgmt.*, **30**: 50-56.—After having fed on corn treated with an oral anesthetic, 87 turkeys were captured. Drugged birds are vulnerable to predation and may die from overdosage. Users should experiment before employing this technique in the field.—J.P.R.

## MIGRATION AND ORIENTATION

- BARTONEK, J. C. 1965. Some summer and migration observations on Whistling Swans in Manitoba. *Canadian Field-Nat.*, **79**: 217-218.
- BELCHER, M. 1965. "Signs of spring," Harley Ranson's experiences of spring migration in the Tyvan district 1916-1934. *Blue Jay*, **23**: 3-9.—A resumé of arrival dates for 72 bird species in this southern Saskatchewan locality.—R.W.N.
- BELCHER, M., A. BINNIE, AND B. BINNIE. 1966. The 1965 fall warbler migration at Regina. *Blue Jay*, **24**: 10-15.—Includes details of 431 warbler TV tower casualties.—R.W.N.
- CAMPBELL, J. M. 1965. An impressive Gray Jay migration. *Canadian Field-Nat.*, **79**: 157-158.—From mid-August into October, 1964, many hundreds of *Perisoreus canadensis* moved westward along the north shore of the Gulf of St. Lawrence; 755 were counted in a little over three hours on 23 August.—R.W.N.
- CAMPBELL, H., AND B. K. HARRIS. 1965. Mass population dispersal and long-distance movements in Scaled Quail. *J. Wildl. Mgmt.*, **29**: 801-805.—Documents a mass movement of the normally sedentary *Callipepla* in southeastern New Mexico and western Texas in late summer and fall, 1961. Band recoveries indicate movements of 10 to 25 miles but one bird moved 60 miles.—J.P.R.
- COHEN, R. 1966. Banding notes on the Snowy Owl. *Kingbird*, **16**: 73-77.—Weights in relation to wing length of *Nyctea scandiaca* banded and released during winters of 1963-64 and 1964-65 on Long Island, New York.—E.E.
- COHEN, R. 1966. Saw-whet Owls in Atlantic Beach. *Kingbird*, **16**: 90.—In one garden on Long Island, New York, 31 owls were banded between 30 September and 24 October 1965.—E.E.

- DAVIS, T. H. 1966. The 1965 Saw-whet Owl invasion. *Kingbird*, **16**: 69-72.—The 1965 fall flight was the largest on record, with large numbers reported in eastern United States and southeastern Canada.—E.E.
- GOLLOP, M. A. 1965. Bird migration collision casualties at Saskatoon. *Blue Jay*, **23**: 15-17.
- LACK, D., AND P. LACK. 1966. Passerine night migrants on Skokholm. *Brit. Birds*, **59**: 129-141.—Movements of turdids ringed on Skokholm.—H.B.
- LAHRMAN, F. W. 1965. Regina and Lumsden TV tower bird mortalities, 1964. *Blue Jay*, **23**: 18-19.
- NORDSTRÖM, G., AND G. LINDSTRÖM. 1965. Finnische Wiederfunde im Ausland beringter Vögel. III. Mem. Soc. Fauna and Flora Fennica, **41**: 87-109.—A report from Finland on 431 recoveries between 1962 and 1964 of ducks banded elsewhere in Europe (In German.)—M.D.F.U.
- ORING, L. W., AND W. M. DAVIS. 1966. Shorebird migration at Norman, Oklahoma: 1961-63. *Wilson Bull.*, **78**: 166-174.
- PAXTON, R. O. *et al.* 1966. Fall migration. Aug. 16 to Nov. 30, 1965. *Aud. Field Notes*, **20**: 1-93.—The Saw-whet Owl eruption in the east even reached Florida. Pine Grosbeaks, White-winged Crossbills, Redpolls, and Boreal Chickadees also began to appear early in the United States outside the breeding range. The Cattle Egret was recorded in Oregon, and such eastern "vagrants" as Blackpoll Warbler and Philadelphia Vireo were taken in California. The western Eared Grebe and Western Kingbird are practically regular now in eastern United States.—E.E.
- PRESTON, F. W. 1966. The mathematical representation of migration. *Ecology*, **47**: 375-392.—Migration dates, obtained from banding records of numerous banders, are analyzed as approximating a cosine-power distribution (which is very similar to the normal curve). The peak and standard deviation of times of migration can be ascertained with some accuracy. The standard deviation of the time of migration for many species in eastern North America is of the order of 5 to 10 days (less on the spring migration than on the fall one).—H.W.K.
- RUSK, M. S. 1966. Another Oswego County, N.Y. Boreal Owl. *Kingbird*, **16**: 91.—The fourth report in four years near the south shore of Lake Ontario suggests possible migration along the lake shore.—E.E.
- RYDER, R. A. 1966. Some movements of Ring-billed Gulls color-marked in Colorado. *Blue Jay*, **24**: 73-75.
- SNOW, D. W. 1966. Movements of British Robins as shown by ringing. *Brit. Birds*, **59**: 67-74.
- SPENCER, R. 1965. Report on bird-ringing for 1964. *Ringing Suppl.*, *Brit. Birds*, **58**: 533-596.—Recoveries of British-banded birds include two Fulmars in Newfoundland and a Great Skua in Greenland.—H.B.
- THOMSON, A. L. 1966. An analysis of recoveries of Great Skuas ringed in Shetland. *Brit. Birds*, **59**: 1-5.

## MISCELLANEOUS

- BAKER, K. D. 1965. An observation of bird mortality on highways. *Blue Jay*, **23**: 78-80.—White-winged Crossbills and Pine Siskins, evidently attracted to salt on Maine highways in winter, were killed by vehicles.—R.W.N.
- BARTONEK, J. C. 1965. Mortality of diving ducks on Lake Winnipegosis through commercial fishing. *Canadian Field-Nat.*, **79**: 15-20.—Low estimates are that about 450 to 900 ducks and 3,000 grebes and loons are netted annually on this Manitoba lake. Of the ducks, adult male Redheads are most frequently netted.—R.W.N.

- BENDELL, J. F. 1966. An unusual number of dead Ring-billed Gulls. *Canadian Field-Nat.*, **80**: 62.
- BERGER, A. J. 1966. Survival in the wild of hand-reared passerine birds. *Condor*, **68**: 304-305.
- BUSSE, P. 1965. Field methods of Operation Baltic. *Notatki Ornithologiczne*, **6**: 2-6.—Descriptions and illustrations of modifications of trapping, netting, banding, and weighing techniques. (In Polish; English summary.)—M.D.F.U.
- DE VOS, A., AND A. E. ALLIN. 1964. Winter mortality among Red-necked Grebes (*Colymbus grisegena*) in Ontario. *Canadian Field-Nat.*, **78**: 67-69.
- FISHER, H. I. 1966. Airplane-albatross collisions on Midway Atoll. *Condor*, **68**: 229-242.
- FOX, G. A. 1966. Observations of the effect of a solar eclipse on bird activities. *Blue Jay*, **24**: 87-88.
- HOUSTON, C. S. 1965. Observation and salvage of Great Horned Owl nest. *Blue Jay*, **23**: 164-165.
- HOUSTON, C. S. 1966. Fatal entanglement of Common Tern. *Blue Jay*, **24**: 79.
- MAYFIELD, H. 1966. Fire in birds' nests. *Wilson Bull.*, **78**: 234-235.
- NERO, R. W. 1965. A brief note on birds feeding on the cat-tail moth. *Blue Jay*, **23**: 129.
- NERO, R. W. 1965. Birds feeding at sapsucker trees. *Blue Jay*, **23**: 169.
- PIECHOCKI, R. 1965. *Augenkatalog der Vögel Europas*. Sonderausgabe 1, 71 pp. *Zeit. f. Museumstechnik "Der Präparator,"* Bonn, Germany.—A catalogue listing the eye color and size of all European birds, indicating differences in sex and age. The work, based on an earlier booklet by W. Meves, is intended primarily for zoological preparators. The author disclaims covering all variations in iris color. For size, only a single measurement is given, but the reviewer failed to find any explanation of the measurement beyond the statement that "eye sizes . . . are designated according to commercial usage." Nevertheless, color indications and relative sizes evident from the measurements should be useful to bird painters and zoologists. Although written in German, adequate notes are supplied in English, French, and Russian; scientific names, as well as vernacular names in six European languages, are provided.—E.E.
- PUGH, U. W. 1965. Song Thrush living with twig through its body. *Brit. Birds*, **58**: 511-513.
- SEALY, S. G. 1966. Swallow mortality at Moose Mountain. *Blue Jay*, **24**: 17-18. —Effect of inclement weather, 23-26 May 1965.
- SEALY, S. G. 1966. Unusual accident involving a California Gull. *Blue Jay*, **24**: 75.

## PHYSIOLOGY

- BROCKWAY, B. F. 1965. Effects of capture and caging on thyroid activity of House Sparrows (*Passer domesticus*). *Ohio J. Sci.*, **65**: 130-137.—The uptake of iodine-131 was lower in birds caged for shorter periods (2 and 10 days) than in those caged for 90 and 100 days prior to testing. Iodine release was depressed in birds held for only 2 days; by 10 days iodine release did not significantly differ from that of birds held 90 days. Reserpine had no effect on rates of uptake or retention.—H.C.S.
- BROWN, G. W., JR. 1966. Studies in comparative biochemistry and evolution. 1. Avian liver arginase. *Arch. Biochem. Biophysics*, **114**: 184-194.—The presence of arginase was conclusively demonstrated in the liver of a number of avian species. The amidine group of arginine was shown to contribute to the formation of urea,

- evidence which strongly suggests that the uricotelic metabolism of birds is not inconsistent with the possession of arginase and which casts doubt on the evolutionary significance of the presence or absence of enzymes of the ornithine-urea cycle in vertebrate tissues.—A.H.B.
- CADE, T. J., AND L. GREENWALD. 1966. Nasal salt secretion in falconiform birds. *Condor*, **68**: 338-350.
- CHAMBERS, G. D., K. C. SADLER, AND R. P. BREITENBACH. 1966. Effects of dietary calcium levels on egg production and bone structure of pheasants. *J. Wildl. Mgmt.*, **30**: 65-73.—Birds on high calcium diets produced two adequate-sized clutches of eggs, but those on low calcium diets could not. Osteoporosis was detected in females on low calcium. Inadequate calcium supplies in areas of low pheasant populations may be reflected by osteoporosis in breeding females.—J.P.R.
- FEENY, R. E., D. T. OSUGA, S. B. LIND, AND H. T. MILLER. 1966. The egg-white proteins of the Adelie Penguin. *Comp. Biochem. Physiol.*, **18**: 121-130.—Egg-white from *Pygoscelis adeliae* was unusually high in sialic acid and low in lysozyme; other major constituents were generally similar to other avian egg whites. The conalbumin existed in multiple forms. On the basis of these comparisons it was concluded that penguins are more closely related to the "lower water fowl" (*i.e.*, albatross) than to the ratites.—A.H.B.
- HARCLERODE, J., AND J. J. DROPP. 1966. Seasonal variation in thyroid gland activity in pheasants. *Ohio J. Sci.*, **66**: 380-386.—Thyroids were most active in January and April and least active in July and October; generally an increased relationship between weight of the gland and activity was noted. Korean, Persian, Green, and Reeves pheasants, of both sexes, were tested and some slight differences in response among the species did occur.—H.C.S.
- KENDEIGH, S. C., AND H. E. WALLIN. 1966. Seasonal and taxonomic differences in the size and activity of the thyroid glands in birds. *Ohio J. Sci.*, **66**: 369-379.—The thyroid gland of small birds has greater secretory activity (higher epithelial cells, smaller follicles, and less volume and weight of the gland) during late autumn and winter than during late spring and summer. Large species have absolutely and relatively larger thyroids than smaller species.—H.C.S.
- KORSCHGEN, L. J., G. D. CHAMBERS, AND K. C. SADLER. 1965. Digestion rate of limestone force-fed to pheasants. *J. Wildl. Mgmt.*, **29**: 820-823.—Digestion of limestone grit was nearly complete in 36 hours. This may explain why crop and gizzard contents of wild pheasants generally show levels of calcium lower than the known requirements of penned birds.—J.P.R.
- LASIEWSKI, R. C., AND G. A. BARTHOLOMEW. 1966. Evaporative cooling in the Poor-will and the Tawny Frogmouth. *Condor*, **68**: 253-262.
- MACMILLEN, R. E., AND J. C. SNELLING. 1966. Water economy of the White-crowned Sparrow and its use of saline water. *Condor*, **68**: 388-395.
- MILLER, H. T., AND R. E. FEENY. 1966. The physical and chemical properties of immunologically cross-reacting protein from avian egg whites. *Biochem.*, **5**: 952-958.—Ovomacroglobulin (component 18), a large protein from avian egg white, showed high antigenicity in rabbits and cows. The cross-reactivity of different avian species (Kiwi, duck, tinamou, and several galliforms) when tested against antibodies to the chicken protein was intensive. The protein from each of these groups (and a penguin) had similar physical and chemical properties.—A.H.B.
- NAYLER, W. G., J. M. PRICE, AND T. E. LOWE. 1965. The presence of a substance with positive inotropic activity in blood plasma of a variety of animals. *Comp. Biochem. Physiol.*, **15**: 503-507.—This substance, isolated by means of 5 per cent



- cross-linked polyacrylamide gel, was found in various vertebrates, including the domestic fowl.—M.K.R.
- NEWTON, I. 1966. Fluctuations in the weights of Bullfinches. *Brit. Birds*, **59**: 89-100.—Inverse correlation with temperature found; adults lose while feeding nestlings, gain during molt.—H.B.
- WILLOUGHBY, E. J. 1966. Water requirements of the Ground Dove. *Condor*, **68**: 243-248.
- ZIMMERMAN, J. L. 1966. Effects of extended tropical photoperiod and temperature on the Dickcissel. *Condor*, **68**: 377-387.

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- BALDWIN, P. H., AND J. R. KOPLIN. 1966. The Boreal Owl as a Pleistocene relict in Colorado. *Condor*, **68**: 299-300.
- CLANCEY, P. A. 1966. A subspecific arrangement of the austral populations of the Fawn-coloured Lark *Mirafra africanoides* Smith. *Arnoldia* (Rhodesia), **2**(20): 8 pp.—Six races recognized.—M.A.T.
- COWAN, I. McT. 1964. The holotype of the Franklin Grouse (*Canachites franklinii*). *Canadian Field-Nat.*, **78**: 127-128.
- HOWARD, H. 1966. Pliocene birds from Chihuahua, Mexico. *Los Angeles Co. Mus. Sci. Ser.*, no. **94**: 1-12.—*Wasonaka yepomerae*, n. gen., n. sp. (Anseriformes, tribe Cairinini?), described; additional material of *Phoenicopterus stocki* from same locality discussed; *Anas bunkeri* and *Eremochen ?russelli* of the Pliocene of United States recorded; *Oxyura* sp., ?*Erolia* sp., and ?Mimidae listed.—H.H.
- HOWARD, H. 1966. A possible ancestor of the Lucas Auk (family Mancallidae) from the Tertiary of Orange County, California. *Los Angeles Co. Mus. Sci. Ser.*, no. **101**: 1-8.—*Praemancalla lagunensis*, n. gen., n. sp., is described from deposits of presumably late Miocene age at Laguna Hills, California. Fragments of humerus, carpometacarpus, and coracoid are figured, all of which show less modification of the wing for swimming than those of the Pliocene genus *Mancalla*.—H.H.
- HOWARD, H. 1966. Two fossil birds from the lower Miocene of South Dakota. *Los Angeles Co. Mus. Sci. Ser.*, no. **107**: 1-8.—Two avian bones, the first to be discovered in the Sharp's formation (Arikaree Group), are described as *Arikarornis macdonaldi* n. gen., n. sp. (Falconiformes, subfamily Aegypiinae) and *Miortyx aldeni*, n. sp. of quail.—H.H.
- JOUANIN, C. 1963. Un pétrel nouveau de la Réunion *Bulweria baraui*. *Bull. Mus. Nat'l. Hist. Nat. Paris*, **35**: 593-597.—A male taken 28 April 1963 differs in plumage and dimensions from known species of *Bulweria*. Closest affinities appear to be with the polytypic species *B. hasitata*. One of three remaining specimens examined by Milon in 1948 appears to be of this newly described species.—C.F.S.
- MILLER, A. H. 1966. An evaluation of the fossil Anhingas of Australia. *Condor*, **68**: 315-320.
- MILLER, L. 1966. An addition to the bird fauna of the Barstow Miocene. *Condor*, **68**: 397.
- SAHA, A., AND J. GHOSH. 1965. Comparative studies on avian hemoglobins. *Comp. Biochem. Physiol.*, **15**: 217-235.—One, two, or three avian hemoglobins were separated by paper electrophoresis from samples, all collected in India, from 13 orders. An attempt is made to correlate the results with current classification and phylogenetic arrangement of these orders.—M.K.R.
- SAUER, E. G. F. 1966. Fossil eggshell fragments of a giant struthious bird (*Struthio oshanai*, sp. nov.) from Etosha Pan, South West Africa. *Cimbebasia*, Windhoek, S. W. A., no. **14**: 52 pp.—The types of this new fossil species are many egg-shell

- fragments recovered from a depth of 114 feet during bore-hole digging in Kalahari sand. Their most striking character is their great thickness, average 3.6 mm., compared to an average of 1.8 mm. for modern ostriches. Age is probably late Pliocene to mid-Pleistocene.—M.A.T.
- VAURIE, C. 1965. Systematic notes on the bird family Cracidae. No. 4. *Ortalis garrula* and *Ortalis ruficauda*. Amer. Mus. Novit., no. 2237: 16 pp.—Only two subspecies of *O. garrula* (*garrula* and *cincereiceps*) are admitted, five named races being synonymized with the latter. These two are quite distinct, but appear to intergrade in westernmost Colombia, an area interpreted as a zone of secondary contact. Similarly, *O. r. ruficauda* and *O. r. ruficrissa*, once considered separate species, exhibit such a zone around Lake Maracaibo. Geographic variation exists within *ruficrissa*, but its nomenclatorial recognition is "not meaningful."—K.C.P.
- VAURIE, C. 1966. Systematic notes on the bird family Cracidae. No. 5. *Penelope purpurascens*, *Penelope jacquacu*, and *Penelope obscura*. Amer. Mus. Novit., no. 2250: 23 pp.—The 11 races admitted by Vaurie have been variously combined in the past into from 1 to 4 species. Detailed evidence is presented to support the thesis that 3 polytypic, apparently allopatric, species are involved in this complex.—K.C.P.
- VAURIE, C. 1966. Systematic notes on the bird family Cracidae. No. 6. Reviews of nine species of *Penelope*. Amer. Mus. Novit., no. 2251: 30 pp.—*P. ortonii* is a distinct species, not conspecific with *montagnii* as held by Vuilleumier (Bull. Mus. Comp. Zool., **134**: 1-27, 1965). The extinct *P. albipennis*, known from three specimens, is also a good species. Relationships of *P. dabbeni* are with the sympatric *P. obscura*, not *P. montagnii*. Also *contra* Vuilleumier, *P. jacucaca*, *ochrogaster*, and *pileata* are considered separate monotypic species. Geographic variation is discussed in *P. montagnii*, *superciliaris*, and *argyrotis*, all polytypic species.—K.C.P.
- WALKINSHAW, L. H. 1965. A new Sandhill Crane from central Canada. Canadian Field-Nat., **79**: 181-184.—*Grus canadensis rowani* described from Alberta, Saskatchewan, west-central Manitoba, and southern Mackenzie.—R.W.N.
- WILLIAMSON, K. 1965. Molt and its relation to taxonomy in Rock and Water pipits. Brit. Birds, **58**: 493-504.—In *Anthus spinoletta* "the key to subspeciation is the geographical variation in the pre-nuptial moult." Five races are recognized and post-nuptial and pre-nuptial molts are described in detail.—H.B.

*Correction*—Unfortunately the abstract of a paper by Hildegard Howard (Auk, **83**: 174) had the generic name of a new species of fossil owl misspelled; it should read *Protostrix*.—G.E.W.

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