PERIODICAL LITERATURE

EDITED BY HERBERT W. KALE II

Anatomy and Embryology

Allenspach, A. L., and J. D. Berlin. 1971. The Golgi complex in the esophageal mucous glands of the newly hatched chick. J. Morphol., 135: 247–258.—Describes general morphology of the mucous gland cell and the nature of the secretory granule. Mucous precursors may be transported from other sites within the cell to the Golgi complex for packaging into secretory granules. Discusses acquisition of cytochemical activity for acid muscopolysaccharides within the complex.—A.S.G.

Balanger, L. F. 1971. The ultimobranchial gland of birds and the effects of nutritional variations. J. Exp. Zool., 178: 125–137.—One of five papers of a symposium on the ultimobranchial gland. Considerable review material. The structure in birds is an endocrine gland secreting calcitonin.—A.S.G.

Benson, C. W. 1971. Notes on *Terpsiphone* and *Coracina* spp. in the Malagasy Region. Bull. Brit. Ornithol. Club, 91: 56–64.—Details and comparisons of island forms with particular attention to degree of sexual dimorphism.—F.B.G.

Bock, W. J., and H. Morioka. 1971. Morphology and evolution of the ectethmoid-mandibular articulation in the Meliphagidae (Aves). J. Morphol., 134: 13–50.—In *Melithreptus* and some species of *Manorina* and *Ptiloprora*, the dorsal mandibular process fits into the ventral ectethmoid process forming a brace for the mandible. The articulation appears to have arisen independently in the three genera and, in *Melithreptus*, forms a typical diarthrosis. It permits opening the upper jaw without either lowering the mandible or exerting compression force on the quadrate by the mandible, activities useful to the feeding technique of honeyeaters. The basitemporal articulation of the mandible may serve a similar function in other birds. Certain peculiar properties of the articulation provide new insight to the nature of diathroses in general and evolution of the mammalian dentary-squamosal joint in particular. Describes jaw and tongue musculature of *Melithreptus*.—A.S.G.

Decker, J. D. 1970. The influence of early extirpation of the octocysts on development of behavior of the chick. J. Exp. Zool., 174: 349–364.—Early extirpation results in primary loss of all inner ear structures and secondarily influences development of nuclei of the acustico-vestibular system. Effects of secondary changes are expressed by severe behavioral disturbances by day 15 in bilaterally treated chicks but remain latent until after hatching in unilaterally operated chicks.—A.S.G.

Dominic, C. J., and R. M. Singh. 1971. Further observations on the incidence of anterior and posterior groups of portal vessels in the avian pituitary. J. Endocrinol., 49: 355–356.—Twenty additional species with two separate groups of portal vessels.—S.L.L.G.

Ganis-Galvez, J. M., and J. M. Castro. 1971. Protein biosynthesis after lens rotation: an immunoelectrophoretic analysis in the chick embryo. J. Exp. Zool., 177: 313–317.—The quiescent genome of lens epithelial cells can be activated with an appropriate artificial stimulus. Biosynthesis of delta crystallin seems to be strongly correlated with morphological features of lens fiber differentiation. (Modified from authors' abstract.)—A.S.G.

Gill, F. B. 1971. Tongue structure of the Sunbird *Hypogramma hypogrammica*. Condor, 73: 485–486.

Lawrence, I. E., Jr. 1971. Timed reciprocal dermal-epidermal interactions between comb, mid-dorsal, and tarsometatarsal skin components. J. Exp. Zool., 178: 195–209.—Chimeric tissue recombinations of 5- to 13-day comb. 5- to 8.5-day feather,

and 6.5- to 13-day scale grown on chorioallantois show that both inductive capacity of dermis and competence of epidermis vary with age.—A.S.G.

NOTTENBOHM, F. 1971. Neural lateralization of vocal control in a passerine bird. 1. Song. J. Exp. Zool., 177: 229–262.—An independent sound source in each bronchus of *Fringilla coelebs* is controlled by hypoglossal innervation to the syrinx on that side. Bilateral denervation renders the bird aphonic. The effect of unilateral denervation depends on the stage of vocal development and the side afflicted. In adult birds, section of the left nerve produces irreversible loss of most of the song's components. Birds treated on either side before beginning song development can develop normal song under control of the intact nerve. Models of both the sound producing mechanism and song development are reexamined in light of these data.—A.S.G.

OVERTON, J. 1971. Fine structure of the developing gastric epithelium of the chick. J. Morphol., 133: 375–386.—The gizzard of the chick embryo was examined for morphological evidence of epithelio-mesenchymal interaction. During day 4 epithelial cells begin to form mucous secretory granules, later massive glycogen deposits appear; by day 8 cell processes have formed. Epithelial and mesenchymal tissue components show no effect when cultured transfilter, and stainable cell surface material, normally abundant at time of induction, is greatly reduced near the epithelium.—A.S.G.

PATEL, V. B. 1970. Acid hydrolases and their relationship to lysosomes in the mesonephoros of the chick embryo. J. Exp. Zool., 175: 429–444.—Capthepsin, acid phenylphosphate, and acid β-glycerophosphotase, all apparently associated with lysosomes, show enhanced specific activity during mesonephric regression.—A.S.G.

SETO, F. 1971. Allograft reactivity in chick embryos. J. Exp. Zool., 177: 343–352.—Host contribution to splenomegaly in 14-day recipients is not immunological in the conventional sense; despite exaggerated splenic enlargement, donor cells survive. Reduction of splenomegaly in older hosts coincides with rejection of donor cells. By day 18 allogenic cells are rejected.—A.S.G.

VINCE, M. A., AND R. C. H. CHENG. 1970. Effects of stimulation on the duration of lung ventilation in quail fetuses. J. Exp. Zool., 175: 477–486.—Clicking in neighboring eggs reduced the duration of lung ventilation in *Coturnix* but not in *Colinus*. Duration in both quail varied according to age of stimulating eggs. Both species appear to require a minimum period of clicking before hatching.—A.S.G.

BEHAVIOR

BLÖSCH, M. 1971. Über den Einfluss von Phenobarbital auf das Brutverhalten der Silbermöwe (*Larus argentatus argentatus* Pontopp). Z. Tierpsychol., 28: 487–493.—All elementary brood care activities disappeared in phenobarbital-intoxicated Herring Gulls. Social behavior and some elements of comfort behavior were not disturbed by the drug. (English summary.)—H.C.M.

BROOKE, R. K. 1971. Avian scavengers in Luanda Harbor. Bull. Brit. Ornithol. Club, 91: 46.—Grey Herons and Little Egrets become scavengers during seasonal absence of gulls.—F.B.G.

BRUNS, E. H. 1970. Winter predation of Golden Eagles and coyotes on pronghorn antelopes. Canadian Field-Naturalist, 84: 301–304.—Although eagles are not usually considered a predator on pronghorn in winter, pronghorns were surprisingly more wary of Golden Eagles than of coyotes. Specific alarm and escape patterns related to eagles were observed. Herds formed quickly into a close pack in response to eagles and other aerial stimuli. Presents a detailed observation of an eagle killing a 70-pound fawn.—R.W.N.

CHAMBERLAIN, D. R., AND C. M. FIELDS. 1969. Techniques for testing the specificity of the "assembly call" in the Common Crow. Raven, 40: 64–66.—Authors question classification of call as species specific because one or more of eight cohabiting species approached sound source in 14 of 25 tests.—E.F.P.

CUNNINGHAM, E. B. 1970. A Golden Eagle harassing bighorn sheep. Canadian Field-Naturalist, 84:183.

CURIO, E. 1970. Kaspar-Hauser-Versuche zum Feinderkennen junger Trauerschnäpper (*Ficedula h. hypoleuca* Pall.). J. Ornithol., 111: 438–455.—52 naive, hand-reared Pied-Flycatchers were exposed individually to a variety of enemy and control objects at an age of 5 to 7.5 weeks. The birds showed similar avoidance to an owl and a passerine, but lesser avoidance to models. Avoidance by the naive young to live owls and passerines was weaker than the reaction of wild adults to mounted specimens. Naive birds mobbed a living Little Owl more strongly than any other species or model tested. In all, novel stimuli appear to be avoided, but there is evidence for the innate recognition of owls. (English summary.)—H.C.M.

EASTMAN, J. 1970. Grazing of a Rose-breasted Grosbeak on a green burn. Jack-Pine Warbler, 48: 111–112.

EMLEN, S. T. 1971. The role of song in individual recognition in the Indigo Bunting. Z. Tierpsychol., 28: 241–246.—Individuals differ in their songs. Play-back experiments revealed that birds recognize other individuals by their songs.—H.C.M.

EPP, H. T. 1970. Unusual flight behavior of Whooping Cranes in Saskatchewan. Canadian Field-Naturalist, 84: 307–308.—Instead of flying with legs outstretched in the usual fashion, the seven members of a flock observed on 11 May 1969 flew with their feet doubled up under their bellies, presumably a response to cold.—R.W.N.

GELUSO, K. N. 1970. Feeding behavior of a Roadrunner in winter. Bull. Oklahoma Ornithol. Soc., 3: 32.

HENSHAW, J. 1970. Conflict between red squirrel and Gray Jays. Canadian Field-Naturalist, 84: 390–391.—Observations near College, Alaska of squirrels trying to drive jays away from squirrel middens.—R.W.N.

HEPPNER, F. H., AND D. S. FARNER. 1971. Training White-crowned Sparrows, *Zonotrichia leucophrys gambelii*, in self-selection of photoperiod. *Z. Tierpsychol.*, 28: 62–68.—The birds were trained to turn on their own lights by attracting them to a small dim light in an otherwise darkened cage.—H.C.M.

HUTCHINSON, J. B. 1971. Effects of hypothalamic implants of gonodal steroids on courtship behaviour in Barbary doves (*Streptopelia risoria*). J. Endocrinol., 50: 97–113.—Implants of crystalline testosterone propionate in the preoptic and anterior hypothalamic area of the brain evoke courtship behavior in castrated male doves. Implants in areas adjacent to the preoptic and anterior hypothalamic regions induce some components of courtship behavior with bowing notably absent; implants farther from this area fail to evoke courtship. The preoptic and anterior hypothalamic areas of the avian brain appear to be directly sensitive to testosterone and to control courtship behavior.—S.L.L.G.

LECK, C. F. 1971. Nocturnal habits of Ring-billed Gulls (*Larus delawarensis*) at Thimble Shoal, Virginia. Chesapeake Sci., 12: 188.—Hundreds fishing about an illuminated pier of the Chesapeake Bay Bridge-Tunnel.—H.B.

PARMER, H. E. 1968. Unusual behavior of a Yellow-crowned Night Heron. Migrant, 39: 12.—Immature bird hovered over water too deep for wading and caught a fish.—E.F.P.

PAYNE, R. S. 1971. Acoustic location of prey by barn owls (*Tyto alba*). J. Exp. Biol., 54: 535–573.—Barn owls locate prey by an auditory mechanism with an error of less than 1 percent in both vertical and horizontal planes. The mechanism depends

on frequencies above 5 Khz and is highly directional for frequencies above 8.5 Khz. The "barn owl might locate the position of a sound source by moving its head until the intensity of all frequencies comprising a complex sound is brought to a maximum in both ears." This theory is developed from a wealth of anatomical, behavioral, and acoustical data presented in a thorough treatment.—A.S.G.

RAMSAY, A. O., AND E. H. HESS. 1971. Sensitive age parameters and other factors in conditioning to a danger call in Mallard ducklings. Z. Tierpsychol., 28: 164–174.—Mallard ducklings acquired a response to a man-made "danger-call" more easily if they acquired a man-made "flock-call" on the first day after hatching. The sensitive period for acquiring a hiding response to the "danger call" is between 36 and 60 hours.—H.C.M.

ROBINS, J. D., AND A. RAIM. 1970. Late winter movements and social behavior of the Black-capped Chickadee. Jack-Pine Warbler, 48: 66–72.

RUGE, K. 1970. Die Lautäusserungen des Blutspechts, *Dendrocopos syriacus*. Die Lautäusserungen der adulten Vögel. J. Ornithol., 111: 412–419.—An analysis, using sonograms, of the similarities and differences in vocalizations of the Syrian and Great Spotted Woodpeckers. (English summary.)—H.C.M.

SCHERZINGER, W. 1971. Beobachtungen zur Jugendentwicklung einiger Eulen (Strigidae). Z. Tierpsychol., 28: 49–504.—Young of open-nesting owls develop the ability to walk, climb, and tear up food more rapidly, and leave the nest earlier than hole-nesting species, although the total time of development is similar in the two types. (English summary.)—H.C.M.

SHIELDS, M. 1969. Activity cycles of Snowy Owls at Barrow, Alaska. Murrelet, 50: 13–16.—The activity cycles of captive and tundra *Nyctea scandiaca* are compared.—A.C.V.

SPITZER, G., AND R. WICHTL. 1970. Vorläufige Untersuchungen zum Gesang der Bartmeise (*Panurus biarmicus*). J. Ornithol., 111: 362–366.—Male Bearded Tits have a peculiar vocalization consisting of three sounds, the third resembling a distress call. The vocalization appears to have several functions. (English summary.)—H.C.M.

STORK, H.-J. 1971. Zur sozialen funktion des Gesanges der Amsel *Turdus merula* L. Z. Tierpsychol., 28: 54–58.—The male Blackbird uses part of his song to invite the female off the nest and permit her to feed. (English summary.)—H.C.M.

THIELCKE, G. 1970. Die socialen Funktionen der Vogelstimmen. Vogelwarte, 25: 204–229.—An excellent and thorough review of the function of bird vocalizations, with particular emphasis on social functions. (Lengthy English summary.)—H.C.M.

THIELCKE, G. 1971. Versuche zur Kommunikation und Evolution der Angst-, Alarm- und Rivalenlaute des Waldbaumläufers (*Certhia familiaris*). Z. Tierpsychol., 28: 505–516.—An analysis of the form and function of the vocalizations of the Brown Creeper. The various calls resemble elements of the species song. Responses to some calls vary with context of the situation. (English summary.)—H.C.M.

TODT, D. 1971. "Abstraktionsleistung" einer gesanglich korrespondierenden abessinischen Erddrossel (*Geokichla piagiae* Bouvier). Z. Tierpsychol., 28: 59–61.—An Abyssinian Groundthrush imitated thrushlike songs whistled by the investigator. (English summary.)—H.C.M.

TODT, D. 1970. Die antiphonen paargesänge des ostafrikanischen Grassängers *Cisticola hunteri prinioides* Neumann. J. Ornithol., 111: 332–356.—Pairs of this Sylviid sing in duet; pairs also sing with other pairs or single birds. Includes sonograms, measurements of intervals between individual contributions to the duet, and analyses. Concludes that the probable functions of duet singing are synchronization of sexual

activities of the pair, maintenance of pair bonds, maintaining contact between the pair, and territorial defense. (Lengthy English summary.)—H.C.M.

ULFSTRAND, S., A. SÖDERGREN, AND J. RABÖL. 1971. Effect of PCB on nocturnal activity in caged Robins, *Erithacus rubecula* L. Nature, 231: 467–468.—Swedish Robins ($n = 19$) each fed ca. 60 μg of the PCB, 'Clophen A50', 2–20 October, showed a greater ($P < 0.05$) amount of migratory unrest than did controls ($n = 11$) when tested in Emlen funnels under clear night sky, 22 October. Direction and dispersal of activity was the same in experimentals and controls. PCB residues in breast muscle of six test birds averaged 333 μg/g (= parts per billion); in four controls, 58 μg/g. Low environmental levels of PCBs may significantly alter the migratory behavior of birds.—W.B.R.

WALLACE, G. O. 1970. Winter flock structure and behavior of the Carolina Chickadee. Migrant, 41: 25–29.—Apparently no one bird leads the flock. Average size of winter flock range is 22 acres.—E.F.P.

DISEASES AND PARASITES

HODSON, K., AND M. GRIMBLE. 1970. Parasites from Common Goldeneye, Greater Scaup and Oldsquaw collected on Boundary Bay, B. C., February, 1970. Blue Jay, 28: 125–126.

MESTER, H. 1971. Federlinge auf Limikolen-Gelegen. J. Ornithol., 112: 109–130.—Mallophaga are frequently found on the eggs of shorebirds, a habit which presumably aids in movement of the parasites from parent to parent and parent to young. (English summary.)—H.C.M.

DISTRIBUTION AND ANNOTATED LISTS

ALSOP, F. J., III. 1969. Black-headed Grosbeak in Tennessee. Migrant, 40: 59–60.—First record for state; confirmed by color photographs.—E.F.P.

ANWEILER, G. G. 1970. The birds of the Last Mountain Lake Wildlife Area, Saskatchewan. Blue Jay, 28: 74–83.

ARNOLD, K. A. 1971. Three additional specimens of the Eared Poor-will from the state of Guerrero, Mexico. Condor, 73: 475.

AUSTIN, G. T. 1971. On the occurrence of eastern wood warblers in western North America. Condor, 73: 455–462.

BAIRD, J. C. 1970. A record of a White-fronted Goose in New Brunswick. Canadian Field-Naturalist, 84: 59–60.

BEACHAM, E. D. 1970. Glaucous Gulls at Prince Albert, Saskatchewan. Blue Jay, 28: 25.

BILLETT, D. F., AND P. J. GRANT. 1971. Franklin's Gull in Hampshire: a species new to Britain and Ireland. Brit. Birds, 64: 310–313.—One seen from 21 February to 16 May 1970.—H.B.

BLOKPOEL, H. 1970. Redpoll nesting at Saskatoon, Saskatchewan. Canadian Field-Naturalist, 84: 394–396.—This second case of extralimital nesting of redpolls in southern Saskatchewan occurred in early April 1970. Three young and one egg died and were deserted on 30 April. (Species undetermined.)—R.W.N.

BOOTH, W. M. 1970. Jaegers in Berrien County, Michigan. Jack-Pine Warbler, 48: 46–51.—Records of *Stercorarius* along the eastern shore of Lake Michigan from 1962–68, with a discussion of behavior and identification.—W.T.V.

BRAZIER, F. H. 1970. A third Red-bellied Woodpecker for Saskatchewan. Blue Jay, 28: 161.

BUB, H. 1970. Zur Jahresverbreitung der nordeuropäisch-britischen Berghänflinge (*Carduelis flavirostris*) nach den Ringfunden. Vogelwarte, 25: 237–239.—An analysis

of the distribution and migrations of the British and continental races of the Twite, based on recoveries from about 100,000 bandings in central Europe.—H.C.M.

CAMERON, A. W. 1970. Loggerhead Shrike breeding in Nova Scotia. Canadian Field-Naturalist, 84: 182–183.—First definite breeding record for Nova Scotia and the most easterly for North America.—R.W.N.

CAMPBELL, R. W. 1970. The Sabine's Gull in southwestern British Columbia. Canadian Field-Naturalist, 84: 310–311.—A summary of records, 1963–1969, for "inside waters," in Juan de Fuca Strait and the Strait of Georgia where it is a rare to casual fall transient.—R.W.N.

CLAPP, R. B. 1971. A specimen of Jouanin's Petrel from Lisianski Island, northwestern Hawaiian Islands. Condor, 73: 490.

CONE, W. C., AND J. V. HALL. 1970. Wood Ibis found nesting on Okefenokee Refuge. Oriole, 35: 14.—Adults were feeding nearly grown young birds at Craven's Hammock on 5 July 1967. First breeding record for Georgia.—E.F.P.

COOKE, F. 1970. An Old World race of the Whimbrel on Amherst Island, Ontario. Canadian Field-Naturalist, 84: 179–180.—First report from inland North America, sighted 24 May 1969.—R.W.N.

DIAMOND, J. M. 1971. Bird records from west New Britain. Condor, 73: 481–483.

DU PONT, J. E. 1971. Notes on Philippine birds (No. 1). Nemouria. No. 3.—Lists several new records and describes five new subspecies.—F.B.G.

ECKERT, K. R. 1970. Baird's Sparrows in Clay County [Minnesota]. Loon, 42: 95–96.

EINHORN, C. M. 1970. Winter record of the House Finch in Georgia. Oriole, 35: 29.—First record for state, documented by photographs.—E.F.P.

ERARD, C. 1971. *Apalis flavida caniceps* (Cassin) in Ethiopia. Bull. Brit. Ornithol. Club, 91: 84–88.—Presence of this race in Ethiopia extends its known distribution 1000 km to the east from the southwestern Sudan. Further study may reveal more than one species in this complex.—F.B.G.

EVANS, R. M., D. B. KRINDLE, AND M. E. MATTSON. 1970. Caspian Terns nesting near Spruce Island, Lake Winnipegosis, Manitoba. Blue Jay, 28: 68–71.—Three colonies contained 310 nests altogether.—R.W.N.

EVERETT, M. J. 1971. Breeding status of Red-necked Phalaropes in Britain and Ireland. Brit. Birds, 64: 293–302.

FREEMAN, M. M. R. 1970. The birds of the Belcher Islands, N. W. T., Canada. Canadian Field-Naturalist, 84: 277–290.—Data on 19 breeding species, 6 migrants and 6 accidentals, based largely on extended visits in three seasons, 1959–1961. These large, treeless islands are about 100 miles off the southeast coast of Hudson Bay.—R.W.N.

GEHLERT, R. E. 1970. A second Barred Owl nest record for Saskatchewan. Blue Jay, 28: 162.

GERSTENBERG, R. H., AND S. W. HARRIS. 1971. Elegant Terns in Humboldt Bay, California. Murrelet, 52: 14.—Large numbers of *Thalasseus elegans* were observed during the fall of 1969; the first records north of San Francisco.—W.T.V.

GREEN, J. C. 1970. Additional Dipper sightings in 1970. Loon, 42: 137.

GREEN, J. C. 1970. May record for an Iceland Gull. Loon, 42: 119.

GREEN, J. C. 1970. Melanistic Swainson's Hawk in Duluth. Loon, 42: 145.

HAAS, W. 1970. August-Beobachtungen im südkaspischen Tiefland. Vogelwarte, 25: 233–236.—Observations from the lowlands south of the Caspian Sea in August 1969. *Chetusia leucura* probably breeds in area, an extension of its known range. Presents records of early autumn migrants, including counts of shorebirds. (English summary.)—H.C.M.

HANSON, W. C. 1969. First sight records of Blue Geese in Washington. Murrelet, 50: 24.

HARRISON, J. M., AND J. G. HARRISON. 1971. The occurrence of *Calidris alpina sakhalina* (Vieillot) in Britain. Bull. Brit. Ornithol. Club, 91: 39–40.—Describes a recent specimen from Kent and lists seven other British examples. These probably came from North America.—F.B.G.

HART, J. A. 1970. A recent Minnesota nesting record of the Long-eared Owl. Loon, 42: 74.

HAVERSCHMIDT, F. 1970. Die Blauflügel-Ente (*Anas discors*) im nördlichen Südamerika nebst Beringungs-Ergebnissen aus Surinam. Vogelwarte, 25: 229–233.—An account of the distribution of wintering Blue-winged Teal in South America. In the east the bird occurs regularly as far south as French Guiana, and casually as far as Argentina. In the west the bird crosses the equator in greater numbers and is common in Peru with one record for Chile. Lists 40 birds banded in North America and recovered in Surinam. (English summary.)—H.C.M.

HEYLAND, J. D. 1970. The Common Starling in Arctic Quebec. Canadian Field-Naturalist, 84: 397–98.—Several records, including breeding, for a region well north of the treeline in arctic tundra.—R.W.N.

HEYLAND, J. D. 1970. Brant breeding on Bylot Island, N. W. T. Canadian Field-Naturalist, 84: 397.—One pair apparently nested unsuccessfully.—R.W.N.

HEYLAND, J. D., E. B. CHAMBERLAIN, C. F. KIMBALL, AND D. H. BALDWIN. 1970. Whistling Swans breeding on the northwest coast of New Quebec. Canadian Field-Naturalist, 84: 398–399.—First definite breeding records for Quebec and Labrador, with 24 broods observed, 1966–1968. Apparently increasing as a breeding species.—R.W.N.

HOHN, E. O. 1970. Pomarine and Parasitic Jaegers and Sabine's Gulls in Alberta. Canadian Field-Naturalist, 84: 402.—Sight records for Lake Athabasca, 1969.—R.W.N.

HOPKINS, M., JR. 1970. Identified food items in the diets of nestling Little Blue Heron, Cattle Egret, and Anhinga. Oriole, 35: 30–32.

HOUSTON, M. 1970. Twenty-eighth annual Saskatchewan Christmas bird count, 1969. Blue Jay, 28: 27–32.

HOUSTON, M., AND C. S. HOUSTON. 1970. An invalid Saskatchewan record of the European Widgeon. Blue Jay, 28: 26.

HUBER, L. N. 1971. Horned Grebe specimen from Arizona. Condor, 73: 486.

ILNICKY, N. J. 1971. First known record of Common Eiders in Michigan. Jack-Pine Warbler, 49: 10–11.—*Somateria mollissima* recorded at Marquette between 19 December 1970 and 9 January 1971 (with photograph).—W.T.V.

IVANOVOS, M. 1970. Western Sandpiper found in Mille Lacs County [Minnesota]. Loon, 42: 73–74.

JAMES, R. D., AND J. C. BARLOW. 1970. Barn Swallow from Cornwallis Island, N. W. T. Canadian Field-Naturalist, 84: 181.—An adult male collected 24 June 1969, 150 miles beyond any previous record.—R.W.N.

JOHNSON, J. W. 1970. A bird list for Thompson, Manitoba. Blue Jay, 28: 14–19.

JONKEL, C. J. 1970. A new northern record for the Eastern Kingbird. Canadian Field-Naturalist, 84: 309–310.—A specimen was obtained on Leyson Point, Southhampton Island, N. W. T., 2 July 1967.—R.W.N.

JOWSEY, S., AND J. R. JOWSEY. 1970. Black-chinned Hummingbird reported at Regina. Blue Jay, 28: 120.

KELSALL, J. P. 1970. Some breeding records for birds on the Central Coppermine River. Canadian Field-Naturalist, 84: 306–307.—"Breeding records for 10 species of

birds, including a 250-mile extension for the Blue-winged Teal, and some general faunal observations . . ."—R.W.N.

LAHRMAN, F. W. 1970. Unusually large numbers of Ross' Geese observed at Last Mountain Lake [Saskatchewan]. Blue Jay, 28: 169–170.

LEVY, S. H. 1971. The Mississippi Kite in Arizona. Condor, 73: 476.

LITTLEFIELD, C. D. 1970. Wheatear observations near Fort Churchill, Manitoba. Canadian Field-Naturalist, 84: 404–405.—First records for Manitoba, an immature and at least two adults seen in August and September 1968.—R.W.N.

LONG, R. J. 1970. Barred Owls at Madge Lake, Saskatchewan. Blue Jay, 28: 163.

MCCRARY, MRS. W., AND M. WOOD. 1966. Lark Bunting in Tennessee. Migrant, 37: 41–42.—First record for state, specimen taken.—E.F.P.

MCNEIL, R., AND D. DOYON. 1970. Lark Bunting in Quebec. Canadian Field-Naturalist, 84: 403.—First specimen record, 13 May 1970, an adult male.—R.W.N.

MUELHAUSEN, M. H. 1970. First Dipper record for Minnesota. Loon, 42: 136.

NERO, R. W. 1970. Additional Great Gray Owl records for Manitoba and adjacent Minnesota. Blue Jay, 28: 72–73.

NERO, R. W. 1970. Great Gray Owls nesting near Roseau. Loon, 42: 88–93.—The second Minnesota nest, followed from April through July 1970, with three young surviving. Photos by D. Muir.—R.W.N.

PATTERSON, D. E., AND M. PATTERSON. 1969. Clay-colored Sparrow in Hardin County. Migrant, 40: 84–85.—First specimen for Tennessee; only one previous sight record.—E.F.P.

PATTERSON, D. E., K. LEGGETT, A. F. GANIER, B. BASHAM, H. E. PARMER, AND H. C. MONK. 1969. Four additions to the Tennessee state list. Migrant, 40: 6–13.—New species are Ground Dove, Groove-billed Ani, Brown-headed Nuthatch, and Glaucous Gull. Ganier lists stomach contents for *Crotophaga sulcirostris*.—E.F.P.

PETTINGILL, O. S., JR. 1970. Philadelphia Vireo breeding in Michigan. Jack-Pine Warbler, 48: 85.—Apparently the first breeding record for Michigan, 20 July 1970.—W.T.V.

POWERS, L. 1969. Sight record of the Blue Grosbeak in Idaho. Murrelet, 50: 20–21.

RENAUD, W. 1970. First sight record of the Band-tailed Pigeon in Saskatchewan. Blue Jay, 28: 166.

ROSS, C. C. 1970. The first nesting record of the Eastern Phoebe for Grand Manan, New Brunswick. Canadian Field-Naturalist, 84: 182.

SCHULTZ, Z. M. 1970. The occurrence of the Yellow-[B]illed Loon in Washington. Murrelet, 51: 23.—Although on the hypothetical list, several good sight records have been reported of *Gavia adamsii*.—W.T.V.

SCHULTZ, Z. M. 1970. Sight records of the Tufted Duck (*Aythya fuligula*) at Seattle, Washington. Murrelet, 51: 25.—The first records for Washington, seen on 31 December 1967 and 1 January 1969.—W.T.V.

SEALY, S. G. 1970. Records of the Parula Warbler in Alberta and Saskatchewan. Blue Jay, 28: 164–166.

SHANHOLTZER, G. F. 1970. Breeding records and distribution of the Glossy Ibis on the Georgia Coast. Oriole, 35: 37–39.—Two heronries containing breeding *Plegadis falcinellus* in 1970 fill a breeding hiatus for this species along the Atlantic Coast.—E.F.P.

SHARROCK, J. T. R. 1971. Scarce migrants in Britain and Ireland during 1958–67. Brit. Birds, 64: 302–309.—Data on Greenish Warbler and Scarlet Rosefinch.—H.B.

SHELTON, N. 1970. Lincoln's Sparrow at the Mindon City state game area. Jack-Pine Warbler, 48: 94–96.—A large population in Sanilac County, Michigan, is far removed from the nearest breeding area of this species.—W.T.V.

SIMCOX, R. 1970. White-faced Ibis in Cass County. Jack-Pine Warbler, 48: 33.—Apparently the second record of *Plegadis chihi* for Michigan, 4 May 1969 (with photograph).—W.T.V.

STEPINOFF, S. 1970. Ash-throated Flycatcher at Chincoteague. Raven, 41: 34.—Appears to be second sight record for Virginia.—E.F.P.

TRAUTMAN, M. B., AND M. A. TRAUTMAN. 1971. Three additions to the Annotated List of the Birds of Ohio. Ohio J. Sci., 71: 216.—*Larus minutus*, *Muscivora forficata* and *Myadestes t. townsendi*, previously reported as "sighted" have now been collected in Ohio. Specimens are deposited in the Ohio State University Museum of Zoology.—A.S.G.

VAN VELZEN, W. T. 1968. The status and dispersal of Virginia Royal Terns. Raven, 39: 55–60.

VAN VELZEN, A. C. 1969. Status of Yellow-headed Blackbird in western Washington. Murrelet, 50: 21.

VERMEER, K. 1970. Insular Great Blue Heron colonies on large Manitoba lakes. Blue Jay, 28: 84–86.

VERMEER, K. 1970. Aquatic breeding birds of the Isle of Bays [Saskatchewan], 1969. Blue Jay, 28: 86–87.

VERMEER, K. 1970. Breeding records of Herring Gulls in Alberta and California Gulls in Manitoba. Canadian Field-Naturalist, 84: 182.

WESTERNHAGEN, W. VON. 1970. Durchzügler und Gäste an der westafrikan ischen Küste auf den Inseln der Untiefe Banc d'Arguin. Vogelwarte, 25: 185–193.—Observations of transients and nonbreeding summer birds on islands of the coast of Mauritania, West Africa. Transients found in July included some 20,000 shorebirds of more than six species. (English summary.)—H.C.M.

YOCOM, C. F. 1970. Evidence of Canada Geese in Kashmir, India. Murrelet, 51: 26.

YOCOM, C. F. 1970. Status of the Indigo Bunting in the Pacific states. Murrelet, 51: 40–41. A summary of 8 records from Washington, Oregon, and California.—W.T.V.

ECOLOGY AND POPULATION

ALSOP, F. J., III. 1970. A census of a breeding bird population in a virgin spruce fir forest on Mt. Guyot, Great Smoky Mountains National Park. Migrant, 41: 49–55.—Results of Mt. Guyot census are compared to censuses taken on Mt. Mitchell in North Carolina where much destruction of trees by man and balsam wooly aphid infestation has occurred.—E.F.P.

BENGTSON, S.-A., AND S. ULFSTRAND. 1971. Food resources and breeding frequency of the Harlequin Duck *Histrionicus histrionicus* in Iceland. Oikos, 22: 235–239.—Total standing crop of benthic animals was greater in 1969 than in 1970. At four study areas, populations of breeding and nonbreeding birds were stable from 1965 to 1969. In 1970, both population size and percent of nonbreeding adults increased.—S.C.W.

BERGER, D. D., D. W. ANDERSON, J. D. WEAVER, AND R. W. RISBROUGH. 1970. Shell thinning in eggs of Ungava Peregrines. Canadian Field-Naturalist, 84: 265–267.—Judging by eggs and data collected in 1967 and 1970, this "population has reached a critical level of shell thinning resulting in the production of broken or cracked eggs and lower than normal numbers of young hatched. The reproductive rate, therefore, may not be sufficient to maintain the stability of the population."—R.W.N.

BOEKER, E. L., AND T. D. RAY. 1971. Golden Eagle population studies in the southwest. Condor, 73: 463–467.

BREWER, R. 1970. Breeding bird populations in a mesophytic forest in southern Indiana. Jack-Pine Warbler, 48: 108–109.

CADE, T. J., AND R. FYFE. 1970. The North American Peregrine survey, 1970. Canadian Field-Naturalist, 84: 231–245.—The efforts of 22 field investigators, including the authors, provide a comprehensive assessment of the breeding status of the Peregrine Falcon in Canada and Alaska (though a government sponsored survey of the British Columbia mainland population was not available). The results of this formidable task are disheartening. Hopes in 1965 that the decline of the Peregrine on this continent would not extend into the remoter portions of its range are shattered. From the Maritimes to Alaska and the arctic tundra, populations have declined. Only about 40 percent of 237 eyries that were examined were occupied. The Aleutian Islands population, not previously surveyed in detail, seems to offer the best chance for survival of the species. In all other populations reproductive success "has diminished in association with eggshells that are 15–20% thinner than they were in these populations before 1947. There is a highly significant negative correlation between chlorinated hydrocarbon residue levels in egg contents (or adult tissues) and the thickness of eggshells. At the current rate of decline, the Peregrine may become extinct in North America in this decade."—R.W.N.

DIESSELHORST, G. 1971. Ein Fall interspezifischer Kompetition bei Webervögeln (*Ploceus*). J. Ornithol., 112: 227–229.—*Ploceus nigerrimus* drove a pair of *P. oculans* from a palm tree, destroyed their nest, and used the material to construct their own nests.—H.C.M.

EHRHARDT, J. P. 1971. Census of the birds of Clipperton Island, 1968. Condor, 73: 476–480.

ERN, H. 1970. Nahrungsparasitismus und Futtertauchen bei der Stockente (*Anas platyrhynchos*) am Bodensee als Reaktion auf Veränderungen im Nahrungsangebot. Vogelwarte, 25: 334–336.—In the hard winter of 1969–1970 about 50 Mallards fed largely on mussels that they stole from about 3,000 coots concentrated at the outflow from the Lake of Constance.—H.C.M.

GROSSKOPF, G. 1970. Der Einfluss von Alter und Partnerwahl auf das Einsetzen des Brutgeschäfts beim Rotschenkel *Tringa totanus totanus*. J. Orinthol., 111: 420–437.—Older Redshanks breed earlier; in pairs of mixed age, the older partner determines the onset of breeding. Pairs formed in previous years breed earlier than newly formed pairs. (English summary.)—H.C.M.

HO HON. 1970. Hazel Grouse. Korean Nature, 3: 11.—The scientific name of this grouse is not given, but reference is undoubtedly to *Tetrastes bonasia*. An informal report of a study conducted in the Ogasan Natural Reserve in northern North Korea in 1960. Nests of moss, dry grasses and twigs, lined with abdominal feathers of the female were built in small "hollows" in mixed broadleaf-coniferous forest at an elevation of 800 m. Measurements of a nest (nests?) are 23 × 24 cm in external diameter and 15 × 17 cm internal diameter, 5.8 cm in depth and 9.6 cm in height. Clutch size averaged 8 and eggs averaged 38.6 × 29.2 mm. The eggs were "colourless, disorderly spotted with blown [sic] tints." Only the female incubated, leaving the nest twice a day, once in the morning and once in the evening from 1 to 1½ hours each time. Incubation apparently required 17 days, though the wording of this statement leaves some doubt. The chicks left the nest 6 hours after hatching. They became independent of their mother after 1 to 1½ months. At one year of age they were fully grown and weighed from 360 to 442 g (mean 380 g). Hazel Grouse feed mainly on lepidopterous larvae, locusts, beetles, grubs, acorns, hips, seeds of grasses, and young plant shoots. In spring, summer, and early autumn they feed mainly on insects and their larvae. Hazel Grouse are considered of economic importance in

North Korea because of their diet and game potential. The government is undertaking management procedures to preserve and propagate this species.—J.W.H.

KALCHREUTER, H. 1970. Ringfundergebnisse bei der Rabenkrähe (*Corvus corone corone*). Vogelwarte, 25: 245–255.—An analysis of 351 band recoveries of the Carrion Crow. Most birds move very little and mortality is mainly caused by man. (English summary.)—H.C.M.

LARSEN, K. H., AND D. F. MOTT. 1970. House Finch removal from a western Oregon blueberry planting. Murrelet, 51: 15–16.—A large increase in the population of *Carpodacus mexicanus* has occurred since 1940. Hatching year birds comprised 97.9 percent of the 3,522 removed.—W.T.V.

LASKEY, A. R. 1966. Status of Bewick's Wren and House Wren in Nashville. Migrant, 37: 4–6.—Author attributes drastic decrease in *Thryomanes bewicki* population to urbanization and human activities because decline began before *Troglodytes aedon* became a breeding species in vicinity of banding station.—E.F.P.

LUKSCHANDERL, L. 1971. Zur Verbreitung und Ökologie der Grosstrappe (*Otis tarda* L.) in Österreich. J. Ornithol., 112: 70–93.—Only 250 Great Bustards remain in Austria; five times as many were present in 1942. Habitat changes appear to be the major cause of the decline. Outlines research and management plans to halt the decline and presents details on the current distribution. (English summary.)—H.C.M.

MARIÁN, M. 1970. Der Bestand des Weisstorchs (*C. ciconia*) in Ungarn 1963. Vogelwarte, 25: 255–257.—Estimated production of young White Storks in Hungary dropped from 18,295 in 1958 to 13,866 in 1963. Drainage of wetlands, destruction of nests and nest-sites, and shooting are believed the major reasons for the decline. (English summary.)—H.C.M.

MILLER, W. 1970. Factors influencing the status of Eastern and Mountain bluebirds in southwestern Manitoba. Blue Jay, 28: 38–46.—Between 1959 and 1968, 1,700 nest boxes were installed. Up to 1966 both bluebird species increased fairly constantly. "In 1967 and 1968, however, *currocoides* accelerated its rate of population growth whereas *sialis* decelerated markedly." The author concludes that "control" of *sialis* numbers by *currocoides*—the dominant species—may have been responsible.—R.W.N.

MURRAY, B. G., JR. 1971. The ecological consequences of interspecific territorial behavior in birds. Ecology, 52: 414–423.—Postulates that interspecific territoriality may affect selected habitat, territorial and foraging behavior, and bill shape. Presents a model for testing the theory.—C.R.B.

NETTLESHIP, N. N., AND C. E. TULL. 1970. Seabird transects between Valleyfield and Funk Island, Newfoundland, summer, 1969. Canadian Field-Naturalist, 84: 369–376.—Describes the occurrence and distribution of all birds seen on the same 48-mile transect line on each of 3 days in June, July, August 1969, and discusses the basis for changes during the season.—R.W.N.

OELKE, H., AND P. H. KLOPFER. 1970. Licht als Stimulationsfaktor in der Biotopwahl von Katzendrosseln (*Dumetella carolinensis, Mimidae*). J. Ornithol., 111: 357–361.—Laboratory studies of habitat selection show that foliage size and shape are more important than light intensity. (English summary.)—H.C.M.

OUELLET, H. 1970. Changes in the bird fauna of the Montreal region, Canada. Canadian Field-Naturalist, 84: 27–34.—Comparisons based on two papers published in 1862 and 1869 and on more recent data show numerous changes, mostly related to drastic change of the landscape by man, particularly reduction of forested areas and marsh drainage.—R.W.N.

PULLIAM, H. R., AND F. ENDERS. 1971. The feeding ecology of five sympatric finch species. Ecology, 52: 557–566.—Indirect estimates of food-size utilization indicate that differences in culmen length do not reduce competition within habitats, but may

reflect differences in the proportion of large seeds present. Although finch populations consumed perhaps as much as 40 percent of available seeds, the diversity of finches was not correlated with food abundance or diversity.—C.R.B.

ROTHSTEIN, S. I. 1971. High nest density and non-random nest placement in the Cedar Waxwing. Condor, 73: 483–485.

SANDERS, C. J. 1970. Populations of breeding birds in the spruce-fir forests of northwestern Ontario. Canadian Field-Naturalist, 84: 131–135.—During low population density of the spruce budworm, breeding populations of birds averaged 123 pairs/100 acres, compared to 319 pairs/100 acres in the same area during a budworm outbreak. The difference is due largely to the absence of four species known to respond numerically to high budworm populations.—R.W.N.

SCHNAKENWINKEL, G. 1970. Studien an der Population des Austernfischers (*Haematopus ostralegus*) auf Mellum. Vogelwarte, 25: 336–355.—A study of the population biology of the Oystercatcher on the Island of Mellum near Wilhelmshaven from 1913 to 1968. The population has increased at a mean rate of 5 percent per year and now numbers 60 pairs. The mean age of first breeding was estimated at 3.3 years. Average maximum age was 13 years, with one bird reaching 36 years. Survival of adults is 94 percent per year. Annual production of young is 0.36 per pair. About 50 percent of the young survive until the second year. Many more details; an excellent study. (English summary.)—H.C.M.

STERNBERG, H., AND W. WINKEL. 1970. Über die Ei-Grösse des Trauerschnäppers (*Ficedula hypoleuca*) und ihre Beziehung zu Zeit, Alter und Biotop. Vogelwarte, 25: 260–267.—An analysis of variation in egg size in the Pied Flycatcher in relation to age, presumed abundance of food, and other factors. (English summary.)—H.C.M.

STILES, F. G. 1971. Time, energy, and territoriality of the Anna Hummingbird (*Calypte anna*). Science, 173: 818–820.—The amount of energy expended daily by males is about the same all year. They fly for roughly one-fifth of the time and perch for four-fifths, and the time they spend flying decreases sharply as ambient temperature increases. Breeding males spend nearly half their flying time defending territory, and must then feed more efficiently to compensate for less time spent feeding. Breeding territoriality is mainly a competition for energy-rich food sources, and males holding such territories are more likely to obtain mates.—W.B.R.

TRAPP, J. L. 1970. Ingham County breeding bird survey. Jack-Pine Warbler, 48: 104–107.—A 50-stop, roadside census technique is used to determine composition of the bird population and relative species abundance.—W.T.V.

VERMEER, K. 1970. Great Blue Heron colonies in Saskatchewan in 1970. Blue Jay, 28: 158–161.—A survey of 31 known colonies containing 1 to 70 nests in each.—R.W.N.

VERMEER, K. 1970. Large colonies of Caspian Terns on lakes Winnipeg and Winnipegosis, 1970. Blue Jay, 28: 117–118.—Five colonies with a total of 2,345 nests.—R.W.N.

WILLSON, M. F. 1971. Seed selection in some North American finches. Condor, 73: 415–429.

WILLSON, M. F. 1971. A note on foraging overlap in winter birds of deciduous woods. Condor, 73: 480–481.

EVOLUTION AND GENETICS

COOKE, F., AND J. P. RYDER. 1971. The genetics of polymorphism in the Ross' Goose (*Anser rossii*). Evolution, 25: 483–496.—The Ross' Goose shows dimorphism in plumage similar to and probably identical with that found in the Blue-Snow Goose (*Anser caerulescens*), but restricted to the plumage of the downy young birds, which

are either gray (= "blue" phase) or yellow (= "white" phase). In both cases the dimorphism is controlled by a single allelic pair, with the gray or blue allele dominant to the yellow or white allele. Continuance into adulthood of the phenotypic expression of this dimorphism in the Blue-Snow Goose allows goslings to learn their parental phenotype, and ultimately to exercise mate choices accordingly. The restriction of the phenotypic expression of the dimorphism to the downy young plumage of Ross' Goose precludes such associative learning, and nonrandom mating based upon it and hence mating is random in this species. The authors hypothesize that the ancestor of *A. rossii* and *A. caerulescens* was fully dimorphic. This condition persisted unchanged in *A. c. caerulescens*. In ancestral *A. rossii* the dimorphism was suppressed by a modifier gene(s) that restricted it to the plumage of the downy young, while in *A. c. atlantica* (Greater Snow Goose) the dominant gray (or "blue") allele was lost, and that form is hence monomorphic (white, with yellow downy young).—L.L.S.

HAFFER, J. 1970. Art-Entstehung bei einigen Waldvögeln Amazoniens. J. Ornithol., 111: 286–331.—Speculates on the speciation of some Amazonian forest birds. Alternating dry and humid periods during and since the Pleistocene probably caused repeated shrinkage and expansion of the Amazonian forest. During arid phases birds were restricted to refugia, in which speciation apparently occurred. Discusses several species groups from several orders. (2-page English summary.)—H.C.M.

LAHRMAN, F. W. 1970. Possible wild hybrid of the White-fronted × Snow Goose [in Saskatchewan]. Blue Jay, 28: 170.

MEZHZHERIN, V. A. 1971. Energetical structure of zoological systems. Nature, 231: 461–462.—Using Lack's data for *Geospiza*, the author postulates (by steps I can't follow) that, because of competition for energy, "more than six species of one genus cannot live together in one territory at the same time . . . and . . . these species must differ in size."—W.B.R.

MITTWOCH, U. 1971. Sex determination in birds and mammals. Nature, 231: 432–434.—The Y chromosome of higher vertebrates seems to determine sex by speeding the growth rate of the gonadal rudiment, which, as a result, differentiates into the dominant gonad of the heterogametic sex (♂ in mammals, ♀ in birds). In the absence of the Y chromosome, the gonadal rudiment develops more slowly into the gonad of the homogametic sex.—W.B.R.

NIETHAMMER, G. 1971. Zur Taxonomie europäischer, in Neuseeland eingebürgerter Vögel. J. Ornithol., 112: 202–226.—Compares 13 species of Passeriformes and the Little Owl from New Zealand, all introduced about 100 years ago, with European specimens. Only House Sparrows from one part of North Island and a population of Redpolls from southern South Island show very slight differences from European populations. (English summary.)—H.C.M.

O'DONALD, P. 1971. Natural selection for quantitative characters. Heredity, 27: 137–153.—Through mathematical models the author purports to show that gene mutations with small effects and low selective coefficients will make the major contribution to variance of quantitative characters, whereas mutations with large effects will be eliminated rapidly.—L.L.S.

VUILLEUMIER, B. S. 1971. Pleistocene changes in the fauna and flora of South America. Science, 173: 771–780.—Accumulating biological and geological evidence suggests that Pleistocene climatic changes profoundly affected the distribution and evolution of South American plants and animals, including those of tropical lowlands. The concept of the "stable tropics" is as inappropriate for South America as Moreau showed it to be for Africa.—W.B.R.

WALDBAUER, G. P., AND J. K. SHELDON. 1971. Phenological relationships of some aculeate Hymenoptera, their dipteran mimics, and insectivorous birds. Evolution, 25:

371–382.—Four complexes of hymenopterans and their dipteran mimics were studied in Illinois. Model species generally occurred continuously in the environment from spring to fall, but mimics rarely occurred in July and August. The authors feel that mimics have adapted to the presence of numbers of newly fledged young birds in July and August by restricting their activities to earlier and/or later in the year. By fall the young birds are conditioned to the models, and in spring the adult and young birds of the previous year retain the avoidance of the models (perhaps enhanced by contacts with similar tropical aposematic insects). The retention of avoidance reaction patterns for long periods of time is backed by references to several studies of musicapids, corvids, and parids.—L.L.S.

General Biology

Berthold, P., E. Gwinner, and H. Klein. 1970. Vergleichende Untersuchung der Jugendentwicklung eines ausgeprägten Zugvogels, *Sylvia borin*, und eines weniger ausgeprägten Zugvogels, *S. atricapilla*. Vogelwarte, 25: 297–331.—A comparative study of the development of the Garden Warbler, a long-distance migrant, and of the Blackcap, a medium-distance migrant, based on 228 hand-reared birds plus birds that were trapped. Garden Warblers develop more rapidly than Blackcaps in terms of weight gain, molt, plumage development, etc. Garden Warblers or Blackcaps hatched late in the season develop more rapidly than birds hatched early in the season. The same is true of birds hand-reared under short photoperiods early in the season. A very thorough and very interesting study. (Lengthy English summary.)—H.C.M.

Black, J. H. 1970. Boat-tailed Grackles feeding Spadefoot tadpoles to nestlings. Bull. Oklahoma Ornithol. Soc., 3: 33–34.

Chapman, J. A. 1970. Weights and measurements of Dusky Canada Geese wintering in Oregon. Murrelet, 51: 34–37.

Diesselhorst, G. 1971. Zur Ökologie von Samtkopfgrasmücke (*Sylvia melanocephala*) und Sardengrasmücke (*Sylvia sarda*) im September in Sardinien. J. Ornithol., 112: 131–137.—Observations on distribution, habitat, density, and behavior of the Sardinian Warbler and the Marmora's Warbler in Sardinia. (English summary.)—H.C.M.

Doerksen, J. P. 1969. An analysis of Barn Owl pellets from Pitt Meadows, British Columbia. Murrelet, 50: 4–8.—*Microtus* made up over 75% of the diet of *Tyto alba*. The rate of pellet deposition was determined.—A.C.V.

Edens, R. H., and T. J. Eley, Jr. 1970. Long incubation period in a Killdeer. Murrelet, 50: 12–13.—Three *Charadrius vociferus* eggs hatched after 42 days.—W.T.V.

Erskine, A. J., and S. M. Teeple. 1970. Nesting activities in a Cliff Swallow colony. Canadian Field-Naturalist, 84: 385–387.—Breeding data for a colony in New Brunswick agreed well with studies made in western North America. Provides a schedule for getting a maximum amount of information from visits to nests.—R.W.N.

Forsman, E., and C. Maser. 1970. Saw-whet Owl preys on Red Tree Mice. Murrelet, 50: 10.

Geluso, K. N. 1970. Additional notes on food and fat of Roadrunners in winter. Bull. Oklahoma Ornithol. Soc., 3: 6.

Gigson, F. 1971. The breeding biology of the American Avocet (*Recurvirostra americana*) in central Oregon. Condor, 73: 444–454.

Goethe, F. 1970. Ziehendes Braunkehlchen (*Saxicola rubetra*) mit eingewachsenem Pflanzen-Dorn. Vogelwarte, 25: 240–241.—A Whinchat, carrying a large thorn in its side, was captured alive in northern Germany. The thorn was probably from a tropical species of Liliaceae and measured 65.5 mm in length. The thorn entered the

breast and passed under the skin of the side, emerging again on the dorsal surface; 10 mm projected dorsally and 29 mm ventrally. No muscles or internal organs were penetrated and the bird appeared in good health.—H.C.M.

GREER, J. K., AND R. L. GILSTRAP. 1970. Vertebrate remains in Barn Owl pellets. Bull. Oklahoma Ornithol. Soc., 3: 25–28.—Rodents were the chief food items of two adult and five nestling *Tyto alba*.—A.C.V.

HALL, G. H. 1970. Great moments in action; the story of the Sun Life falcons. Canadian Field-Naturalist, 84: 209–230.—A reprint of a booklet published in 1955 by Mercury Press, Montreal, about the Peregrine Falcons that nested on the Sun Life Building in downtown Montreal, Quebec, from 1936 to 1952. This timely reprint includes a new preface by T. Mosquin, a biographical sketch of Mr. Hall by G. H. Montgomery, and two of Hall's photographs that did not appear in the original booklet.—R.W.N.

HAUCKE, H. H. 1971. Predation by a White-tailed Hawk and a Harris Hawk on a Wild Turkey poult. Condor, 73: 475.

HICKMAN, G. L. 1971. Prairie Falcons and Red-tailed Hawks rearing young in inactive Golden Eagle nests. Condor, 73: 490.

HILLS, L. V. 1970. The use of Late Tertiary fossil wood as nesting material by Rough-legged Hawks on Banks Island, N. W. T. Canadian Field-Naturalist, 84: 399–401.—Six nests, including an active one, were built of fossil wood 6 million years old. However, the wood fragments were "hardly, or not at all, petrified" and were derived from deposits at the nest sites.—R.W.N.

HOY, G. Über Brutbiologie und Eier einiger Vögel aus Nordwest-Artentinien II. J. Ornithol., 112: 158–163.—Description of nests, eggs, and breeding habits of six species of Argentinian birds.—H.C.M.

JEIKOWSKI, H. 1971. Die Flügelbefiederung des Blesshuhns (*Fulica atra* L.). J. Ornithol., 112: 164–201.—An unbelievably detailed analysis of the wing of the Coot. Numbers of primaries, size of the remicle, structure of the alula, wing-loading, taxonomic comments, etc., etc. (Lengthy English summary.)—H.C.M.

KERWIN, M. L. 1970. Winter food habits of the Common Redpoll and the Horned Lark in Saskatchewan. Blue Jay, 28: 121–122

LÖHMER, K., AND G. VAUK. 1970. Ein weiterer Beitrag zur Ernährung Helgoländer Silbermöwen (*Larus argentatus*). Vogelwarte, 25: 242–245.—An analysis of the stomach contents of 198 Herring Gulls collected on Helgoland. (English summary.)—H.C.M.

LONGLEY, W. H. 1970. Sandhill Cranes at the Carlos Avery Wildlife Area. Loon, 42: 124–128.—Successful nesting efforts of semi-captive Greater Sandhill Cranes close to the Twin Cities.—R.W.N.

MASER, C., E. W. HAMMER, AND S. H. ANDERSON. 1970. Comparative food habits of three owl species in central Oregon. Murrelet, 51: 29–33.—Analysis of pellets of *Bubo virginianus*, *Asio flammeus* and *A. otus*. Tables present percentages of prey species taken in summer and winter.—W.T.V.

NIETHAMMER, G. 1970. Mauserzug des Kiebitzes? Vogelwarte, 25: 331–334.—Suggests that the Lapwing migrates to a locality where it molts before continuing migration. (English summary.)—H.C.M.

NIETHAMMER, G. 1970. Zur Mauser der Ringeltaube (*Columba palumbus*). J. Ornithol., 111: 367–377.—Adult Ring Doves molt the primaries in a descending sequence. Juveniles from late clutches interrupt the molt in winter. When molt resumes, three generations of feathers may be present. Secondaries are shed in a sequence starting from the innermost and outermost to the sixth. The molt of the rectrices is irregular. (English summary.)—H.C.M.

OLIVER, G. V., JR. 1970. Black Ratsnake predation upon nesting Barn and Cliff Swallows. Bull. Oklahoma Ornithol. Soc., 3: 17–20.

PAUL, A. 1969. Survival of Western Grebe in minus fifty degree temperature. Murrelet, 50: 36.—*Aechmophorus occidentalis* lived in muskrat breathing hole in ice.—W.T.V.

REYNOLDS, R. T. 1970. Nest observations of the Long-eared Owl (*Asio otus*) in Benton County, Oregon, with notes on their food habits. Murrelet, 51: 8–9.—The third nesting record west of the Oregon Cascades. A total of 104 pellets are analyzed.—W.T.V.

SEIDENSTICKER, J. C., IV. 1970. Food of nesting Red-tailed Hawks in south-central Montana. Murrelet, 51: 38–40.—Nests of 13 pairs of *Buteo jamaicensis* were examined for prey remains and castings. Tables show food items found with percent occurrence.—W.T.V.

SMITH, D. A. 1970. Observations on nesting Hawk Owls at the Mer Bleue near Ottawa, Canada. Canadian Field-Naturalist, 84: 377–383.—Following a large incursion in the fall and winter of 1962–63, a pair nested in a unique island of boreal habitat on the outskirts of Ottawa. This is the first definite breeding record for southern Ontario, extending the known breeding range 300 miles. Describes vocalizations, food habits, and general habits at or near the nest site.—R.W.N.

STEINER, H. M. 1971. Entwicklung und Mauser der Spinalflur bei der Bartmeise (*Panurus biarmicus*). J. Ornithol., 112: 36–42.—The dorsal tract of the Bearded Tit is rudimentary in the juvenal plumage, leaving parts of the back exposed. The feathers are molted soon after the birds fledge. (English summary.)—H.C.M.

STRESEMANN, E., AND V. STRESEMANN. 1970. Über Mauser und Zug von *Puffinus gravis*. J. Ornithol., 111: 378–393.—The Greater Shearwater molts during the 3 nonbreeding months it spends in the northern Atlantic. Although as many as five primaries may be in some state of molt simultaneously, the birds are never flightless. (English summary.)—H.C.M.

TATE, J., JR. 1970. Nesting and development of the Chestnut-sided Warbler. Jack-Pine Warbler, 48: 57–65.

VERMEER, K. 1969. Some aspects of the breeding chronology of Double-crested Cormorants at Lake Newell, Alberta in 1968. Murrelet, 50: 19–20.—Tables present arrival dates, laying dates, clutch size, and regurgitated food items.—A.C.V.

VERMEER, K. 1970. Arrival and clutch initiation of Double-crested Cormorants at Lake Newell, Alberta. Blue Jay, 28: 124–125.

VERMEER, K. 1970. Some aspects of the nesting of Double-crested Cormorants at Cypress Lake, Saskatchewan, in 1969; a plea for protection. Blue Jay, 28: 11–13.

VERMEER, K. 1970. Colonies of Double-crested Cormorants and White Pelicans in Saskatchewan. Canadian Field-Naturalist, 84: 39–42.—Location and size of nine *Phalacrocorax auritus* colonies (1,078 nests) and eight *Pelecanus erythrorhynchos* colonies (6,558 nests). A previously undescribed pelican colony with 2,459 nests is the largest in Canada. Discusses hazards to these colonies and urges protection.—R.W.N.

MANAGEMENT AND CONSERVATION

ADAMS, B. 1969. Banding and population control studies on gulls at Popsquash Island, Vermont. EBBA News, 32: 278–280.

BURTT, H. E., AND M. L. GILTZ. 1970. Some limitations of killing Red-wings as a method of controlling corn damage. EBBA News, 33: 130–134.

FIMREITE, N., R. W. FYFE, AND J. A. KEITH. 1970. Mercury contamination of Canadian prairie seed eaters and their avian predators. Canadian Field-Naturalist, 84:

269–276.—Treatment of grain with alkyl mercury to inhibit fungi is a common practice in Alberta, though use of this compound has been banned in Sweden since 1966. Unfortunately, birds and mammals that eat treated grain, and predators on these animals, accumulate mercury in their tissues. High levels of mercury were found in Horned Larks and in Pigeon Hawk and Prairie Falcon eggs. The highest level for Prairie Falcon eggs was found at a nest where Ring-necked Pheasants were being eaten. "Reproduction in falcons and accipiters may be adversely affected since their eggs frequently carried mercury levels comparable to those shown experimentally to reduce hatchability in pheasant eggs."—R.W.N.

GODFREY, W. E. 1970. Canada's endangered birds. Canadian Field-Naturalist, 84: 24–26.—A list of 10 birds with brief discussions of each.—R.W.N.

GREICHUS, Y. A., A. GREICHUS, AND E. G. REIDER. 1968. Insecticide residues in grouse and pheasant of South Dakota. Pesticides Monit. J., 2: 90–91.—Subcutaneous fat samples from 46 Sharp-tailed Grouse, *Pedioecetes phasianellus*, and 48 pheasants, *Phasianus colchicus*, were analyzed for 9 chlorinated hydrocarbon insecticide residues by gas-liquid and thin layer chromatography. All were apparently healthy, wild birds, collected from 1965–67. Highest detected residues were for combined DDT, DDD, and DDE, with average values of 0.28 ppm for grouse and 0.37 ppm for pheasants.—J.C.O.

HEATH, R. G. 1969. Nationwide residues of organochlorine pesticides in wings of Mallards and Black Ducks. Pesticides Monit. J., 3: 115–123.—Reports the results of analyses for organochlorine pesticide residues in 24,000 wings of *Anus platyrhynchos* and *Anas rubripes* collected from hunters in 1965–66. Residues were highest in wings from Atlantic and Pacific Flyways, and least in Central Flyway. These data provide base lines for scheduled wing residue monitoring at 2–3 year intervals as part of National Pesticide Monitoring Program.—J.C.O.

HICKEY, J. J. 1970. Peregrine Falcons, pollutants, and propaganda. Canadian Field-Naturalist, 84: 207–208.—An editorial that provides a brief, pertinent view of the changing attitudes on both sides of the agricultural chemical fence. This realistic appraisal of where we are going in terms of pesticide research introduces an unusual and important "special issue of the Canadian Field-Naturalist dedicated to the survival of the Peregrine Falcon."—R.W.N.

HODSON, K. 1970. Pesticides in the Arctic wilderness. Canadian Field-Naturalist, 84: 319–320.—An emotional "Letter," an excerpt from a summer field report by a student working for the Canadian Wildlife Service. Reflections of "Silent spring" in the Arctic breeding grounds of the Peregrine Falcon.—R.W.N.

KRANTZ, W. C., B. M. MULHERN, G. E. BAGLEY, A. SPRUNT, IV, F. J. LIGAS, AND W. B. ROBERTSON, JR. 1970. Organochlorine and heavy metal residues in Bald Eagle eggs. Pesticides Monit. J., 4: 136–140.—Results of residue analyses of 26 *Haliaeetus leucocephalus* eggs collected during 1968 from 21 known-history nests in Maine, Wisconsin, and Florida. Eggs from nonproductive nests in Maine contained higher residue levels, particularly of DDE and dieldrin, than did eggs from either productive or nonproductive nests in the other two states.—J.C.O.

LINCER, J. L., T. J. CADE, AND J. M. DEVINE. 1970. Organochlorine residues in Alaskan Peregrine Falcons (*Falco peregrinus* Tunstall), Rough-legged Hawks (*Buteo lagopus* Pontoppidan) and their prey. Canadian Field-Naturalist, 84: 255–263.—Migratory birds, the chief source of Peregrine food, contained 10 to 20 times more DDE residue than the resident small mammals preyed upon by Rough-legs. As might be expected, Peregrine tissues and eggs contained correspondingly higher residue levels than did Rough-legs. Thus, Peregrines have no opportunity, even in these remote breeding

areas, to decrease pesticide levels acquired during migration and on the wintering range.—R.W.N.

MARTIN, W. E. 1969. Organochlorine insecticide residues in Starlings. Pesticides Monit. J., 3: 102–114.—360 samples (n = 10) of *Sturnus vulgaris* were collected at 128 sites in 42 states during summer, fall and winter sampling periods, and were analyzed for 7 persistent organochlorine insecticide residues. Analyses were of whole birds, with beaks, feet, wings and skin removed. Results in 10 pages of tables, and summarized, show DDT and its metabolites and dieldrin, present in all samples, with highest averaged residues from southeastern U. S., southern New Mexico, Arizona and California, eastern Utah, and the Willamette River drainage of Oregon. These data establish base lines for future comparisons as part of National Pesticide Monitoring Program.—J.C.O.

MOYLE, J. B. 1970. Hawks and hawking in Minnesota. Loon, 42: 69–71.—Results of 26 of 55 questionnaires sent to persons holding "hawk permits" for falconry purposes.—R.W.N.

MULHERN, B. M., W. L. REICHEL, L. N. LOCKE, T. G. LAMONT, A. BELISLE, E. CROMARTIE, G. E. BAGLEY, AND R. M. PROUTY. 1970. Organochlorine residues and autopsy data from Bald Eagles. Pesticides Monit. J., 4: 141–144.—Reports residues detected in 69 *Haliaeetus leucocephalus* found dead or moribund in 25 states during 1966–68. Autopsy revealed illegal shooting to be most frequent cause of death, however eight specimens contained lethal levels of dieldrin in brain tissue, and all had residues of DDE and PCBs.—J.C.O.

NELSON, R. W. 1970. Observations on the decline and survival of the Peregrine Falcon. Canadian Field-Naturalist, 84: 313–319.—Listed as a "Letter," this is a carefully documented plea for propagation of the Peregrine in captivity in order to some day reestablish wild populations. Recommends full use of the knowledge and services of experienced falconers in this task and gives suggestions for research, management and controlled harvest. Total protection of Peregrines is one way of ensuring the extinction of this endangered species.—R.W.N.

PERSSON, B. 1971. Chlorinated hydrocarbons and reproduction of a south Swedish population of Whitethroat *Sylvia communis*. Oikos, 22: 248–255.—All eggs and young contained DDT or its metabolites and PCB. Lindane, aldrin, and dieldrin were absent or in trace amounts. DDT declined from 12.3 to 4.4 ppm of fat weight for 1–4 day old and 6–10 day old nestlings, respectively. Nest success was high and few eggs addled.—S.C.W.

REICHEL, W. L., E. CROMARTIE, T. G. LAMONT, B. M. MULHERN, AND R. M. PROUTY. 1969. Pesticide residues in eagles. Pesticide Monit. J., 3: 142–144.—Reports residues detected in *Haliaeetus leucocephalus* specimens found dead during 1964 and 1965.—J.C.O.

RISEBROUGH, R. W., G. L. FLORANT, AND D. D. BERGER. 1970. Organochlorine pollutants in Peregrines and Merlins migrating through Wisconsin. Canadian Field-Naturalist, 84: 247–253.—An analysis of fat biopsy samples from immature *Falco peregrinus* (10) and *F. columbarius* (7) trapped in 1968 and 1969. Dieldrin and DDE levels in the Peregrines are equivalent to previously reported values; PCB was three times as abundant as DDE. Pigeon Hawks appear to be equally contaminated and "might therefore be expected to show symptoms of shell thinning." PCB, though evidently not a cause of shell thinning, may cause delayed breeding, "an effect that could be critical to Arctic-breeding birds which must complete their reproductive cycle within a restricted period of time."—R.W.N.

STOEWSAND, G. S., J. L. ANDERSON, W. H. GUTENMANN, C. A. BACHE, AND D. J. LISK. 1971. Eggshell thinning in Japanese Quail fed mercuric chloride. Science, 173: 1030–

1031.—*Coturnix coturnix* fed 1 to 8 ppm mercury (as H_gCl_2) from hatching to 10 weeks of age laid eggs that had thinner shells than the eggs of controls ($P \leq 0.05$ for 8 ppm dosage). Total mercury in body tissues was directly proportional to dosage and tended to be higher in males than in females. No methylmercury was detected in the samples.—W.B.R.

VERMEER, K. 1970. Aquatic park proposal for Lake Winnipegosis, Kawinaw and Pelican lakes. Blue Jay, 28: 66–67.—These lakes hold the "richest avifauna" in terms of White Pelicans, Double-crested Cormorants, and Great Blue Herons, in the Canadian Prairie Provinces. Recommends preservation of the colonies by establishment of a federal or provincial aquatic park.—R.W.N.

VERMEER, K., AND L. M. REYNOLDS. 1970. Organochlorine residues in aquatic birds in the Canadian Prairie Provinces. Canadian Field-Naturalist, 84: 117–129.—Twenty-one species, particularly lairds and fish-eating birds, from 31 localities over a wide region were tested to determine the type and quantity of residues present. DDE and dieldrin levels were higher in eggs of larids and fish-eating birds than in geese and ducks. "DDE, dieldrin and PCB levels may be predicted in tissues of California Gull females when known in their eggs. Residue levels in eggs closely resembled those in the livers of females at the time of laying. Shell thickness was significantly and inversely correlated with the concentration of DDE in 40 Great Blue Heron eggs from Alberta, but no significant correlation was found between the concentration of PCBs and shell thickness in those eggs."—R.W.N.

MIGRATION AND ORIENTATION

BARRY, J. J. 1971. Differential fall migration. EBBA News, 34: 55–66.—Figures show the timing of migration of adult and immature *Zonotrichia albicollis*, *Spizella passerina*, *Junco hyemalis*, *Melospiza melodia*, *Vireo olivaceus*, *Dendroica coronata*, *D. striata*, *Geothlypis trichas*, and *Dumetella carolinensis* at two locations.—A.C.V.

CLARK, W. S. 1969. Migration trapping of hawks at Cape May, N. J.—second year. EBBA News, 32: 69–77.

DEKKER, D. 1970. Migrations of diurnal birds of prey in the Rocky Mountain foothills west of Cochrane, Alberta. Blue Jay, 28: 20–24.

DUBKE, K. H. 1966. Fall migration of the Orchard Oriole. Migrant, 37: 48–51.—Author found no Tennessee record for *Icterus spurius* later than 25 August.—E.F.P.

ERIKSSON, K. 1970. Massenrückzug der Rotdrossel (*Turdus iliacus*) im April 1959 and der finnischen Südküste in Beziehung zur Wetterlage. Vogelwarte, 25: 193–203.—Observations of reversed migration of Redwings in spring in southern Finland correlated with adverse weather conditions. As many as 30,000 individuals were seen moving southward on a single day. (English summary.)—H.C.M.

FISHER, H. I. 1971. Experiments on homing in Laysan Albatrosses, *Diomedea immutabilis*. Condor, 73: 389–400.

HART, J. A. 1970. Two incredibly early spring records for the Prothonotary Warbler. Loon, 42: 74.—11 April and 3 May 1970.—R.W.N.

HOUSTON, C. S. 1970. Saskatchewan bird banders—Fred G. Bard. Blue Jay, 28: 150–156.—Includes information on percent recoveries for 21 of 103 species and 13,363 individual birds banded from 1928 to about 1950.—R.W.N.

HOUSTON, C. S. 1970. Will C. Colt's 1893 migration records from Osler, Saskatchewan. Blue Jay, 28: 7–10.

PINKOWSKI, B. C. 1971. An analysis of banding-recovery data on Eastern Bluebirds banded in Michigan and three neighboring states. Jack-Pine Warbler, 49: 33–50.

VAN VELZEN, W. T. 1971. Recoveries of Royal Terns banded in the Carolinas. Chat, 35: 64–66.

VERMEER, K. 1970. Autumn migration of juvenile White Pelicans from western Canada. Blue Jay, 28: 88.

YOCOM, C. F. 1970. Bohemian Waxwing invasion of Humboldt County, California, 1969. Murrelet, 51: 21–22.

MISCELLANEOUS

BORDNER, D. L. 1971. Key to eastern Empidonax flycatchers. EBBA News, 34: 143–145.

DATER, E. 1970. Dorsal wing coverts of Blue Jay (*Cyanocitta cristata*)—guide to age. EBBA News, 33: 125–129.

ERSKINE, A. J. 1970. The breeding bird survey in Canada. Blue Jay, 28: 33–35.

FICKEN, R. W., P. E. MATTHIAE, AND R. HORWICH. 1971. Eye marks in vertebrates: Aids to vision. Science, 173: 936–939.—Most vertebrates that have conspicuous lines leading forward from the eye feed on fast-moving prey and the lines probably are aiming sights. Light-colored circles and dark patches around the eye may function as light-gathering devices and glare reducers, respectively.—W.B.R.

FREEMANN, M. M. R. 1970. Observations on the seasonal behavior of the Hudson Bay Eider (*Somateria mollissima sedentaria*). Canadian Field-Naturalist, 84: 145–153.—This subspecies of the Common Eider breeds and winters on the Belcher Islands in southeastern Hudson Bay. It appears to produce larger eggs than more northerly races, presumably a correlation of its large body size. The larger body size may be due to selection during winter for its range then is more northerly than that of other races.—R.W.N.

HENESS, M. 1970. Kaiser Friedich der Zweite: Über die Kunst mit Vögeln zu jagen. Zur Faksimileausgabe des Codex Palatinus Latinus 1071 der Biblioteca Apostolica Vaticana. J. Ornithol., 111: 456–481.—A lengthy comment and analysis of a Vatican library-copy of the "De arte venandi cum avibus" (The art of falconry) by Emperor Frederick II. A facsimile edition is now available.—H.C.M.

KELM, H. 1970. Beitrag zur Methodik des Flügelmessens. J. Ornithol., 111: 482–494.—Analyzes and compares various methods of measuring the wings of birds. Only the maximum (stretched or arc) measurement of a living or freshly dead bird yields consistent results. (English summary.)—H.C.M.

LEWIN, V. 1970. A simple device for measuring eggshell thickness. Canadian Field-Naturalist, 84: 305.—Conversion of a dial thickness micrometer from parallel anvil type to tangent sphere type.—R.W.N.

LUDWIG, F. E. 1970. Eight years banding at Port Huron, Michigan: 1962–1969. Jack-Pine Warbler, 48: 10–17.—Table shows annual totals for 131 species (13,914 individuals) with recovery rate for each.—W.T.V.

MCENTEE, E. 1970. Age determination of House Finches by plumage change. EBBA News, 33: 70–76.

MCGEEN, D. S. 1971. Factors affecting cowbird success with Yellow Warbler and Song Sparrow hosts. Jack-Pine Warbler, 49: 53–57.—The ability of *Melospiza melodia* to accept and endure a multiple egg load makes it a good host for *Molothrus ater*; the converse is true for *Dendroica petechia*.—W.T.V.

MELLENCAMP, W. R. 1969. Skull ossification in the White-throated Sparrow. EBBA News, 32: 109–111.

ROBERTSON, C. J. 1970. Wing measurements of Accipiters. EBBA News, 33: 79–80.

SAMUEL, D. E. 1971. Field methods for determining the sex of Barn Swallows (*Hirundo rustica*). Ohio J. Sci., 71: 125–128.—Males have longer outer rectrices than females. Breast color is not a useful character. Males follow females more frequently than vice versa.—A.S.G.

STRESEMANN, E. 1970. Zur Erinnerung an Hans Freiherr Geyr von Schweppenburg. J. Ornithol., 111: 394–411.—The obituary of a remarkable ornithologist, forester, and gentleman, who lived a long, active, and productive life in spite of the early loss of his legs.—H.C.M.

VARDY (DONALDSON), L. E. 1971. Color variation in the crown of the White-throated Sparrow, *Zonotrichia albicollis*. Condor, 73: 401–414.

YOCOM, C. F. 1970. Weights of ten species of ducks captured at Ohtig Lake, Alaska—August 1962. Murrelet, 51: 20–21.—Gives maximum, minimum, and mean weights (male and female) for *Aythya affinis*, *A. valisineria*, *A. americana*, *A. marila*, *Bucephala albeola*, *B. islandica*, *Melanitta deglandi*, *Mareca americana*, *Anas acuta*, and *Spatula clypeata*.—W.T.V.

PHYSIOLOGY

BARFIELD, R. J. 1971. Gonadotrophic hormone secretion in the female Ring Dove in response to visual and auditory stimulation by the male. J. Endocrinol., 49: 305–310.—The amount of courtship stimulation presented to and received by female *Streptopelia risoria* directly influences the rate of reproductive development of the female. Weight of oviducts increases significantly with 2-day exposure to a male and continues to increase to a maximum at 6 to 8 days.—S.L.L.G.

BERNSTEIN, M. H. 1971. Cutaneous water loss in small birds. Condor, 73: 468–469.

BOËTHIUS, J., AND E. KNUTSSON. 1970. Resting membrane potential in chick muscle cells during ontogeny. J. Exp. Zool., 174: 281–286.—Potentials recorded from thigh muscle began increasing on day 15 and reached adult levels by day 19. This increase coincides with the transformation of most cells from myotubes to myocytes.—A.S.G.

BRADLEY, E. L., AND W. N. HOLMES. 1971. The effect of hypophysectomy on adrenocortical function in the duck (*Anas platyrhynchos*). J. Endocrinol., 49: 437–457.—Avian and mammalian responses to chronic hypophysectomy are similar if disturbance of the birds is minimized. An earlier hypothesis of adrenal autonomy and an extrahypophysial source of corticotrophin is not supported.—S.L.L.G.

BRETZ, W. L., AND K. SCHMIDT-NIELSEN. 1971. Bird respiration: flow patterns in the duck lung. J. Exp. Biol., 54: 103–118.—Air-flow directions were determined by insertion of heated thermistor probes. During expiration air flows to the posterior sacs from the primary bronchus (most direct route) and to the anterior sacs by the caudodorsal secondary bronchi (indirect route). During expiration flow to the primary bronchus is via the craniomedial secondary bronchi from the anterior sacs (most direct route) but through tertiary bronchi and branches of craniomedial secondary bronchi from the posterior sacs (indirect route). Thus, flow in the tertiary bronchi is always from the caudodorsal secondary to craniomedial secondary bronchi. The pattern is similar for anaesthetized and unanaesthetized resting or heat stressed *Anas platyrhynchos*.—A.S.G.

BROWN, K. M. 1971. Sucrase activity in the intestine of the chick: normal development and influence of hydrocortisone, actinomycin D, cycloheximide, and paromycin. J. Exp. Zool., 177: 493–505.—Development of sucrase activity in the chick intestine may consist of a phase of activation followed by a phase of inhibition. In the first phase, *de novo* synthesis can apparently be evoked by hydrocortisone. (From author's abstract.)—A.S.G.

BURT, A. M. 1970. Changes in level of activity of NAD-dependent and NADP-dependent isocitrate dehydrogenases during the development of the chick spinal cord. J. Exp. Zool., 174: 325–330.—While the activity of NAD-ICDH increases gradually from 3.5 to 21-days incubation, activity of NADP-ICDH increases rapidly to day 7

but at a slower rate thereafter. NADPH-ICDH is apparently the major source of reduced NADP for the reductive synthesis of neuroblastic growth; glucose-6-phosphate dehydrogenase and the pentose cycle are the source for the earlier proliferative stage.—A.S.G.

CHADWICK, A., AND B. J. JORDAN. 1971. The lipids of the crop epithelium of pigeons after injection with prolactin from the pituitaries of different vertebrate classes. J. Endocrinol., 49: 51–58.—The proliferative epithelium of *Columba livia* crops responds by hypotrophy to treatment with ovine prolactin and prolactin-containing pituitary extracts from frog, fish, and pigeon. Lipid stained sections of crops of treated pigeons show distinct differences in response to the various vertebrate prolactins. Although stimulated crop tissue had higher lipid content than that of unstimulated controls, no significant differences in total lipid concentration or in fatty acid composition of the triglycerides was found.—S.L.L.G.

HENDERSON, C. W. 1971. Comparative temperature and moisture responses in Gambel and Scaled Quail. Condor, 73: 430–436.

LASIEWSKI, R. C., M. H. BERNSTEIN, AND R. D. OHMART. 1971. Cutaneous water loss in the Roadrunner and Poor-will. Condor, 73: 470–472.

LICHT, P., AND A. STOCKELL HARTREE. 1971. Actions of mammalian avian and piscine gonadotrophins in the lizard. J. Endocrinol., 49: 113–124.—All gonadotrophin preparations from mammals and birds promoted spermatogenesis, ovarian growth, ovulation and steriodogenesis in *Anolis carolinensis*. Chicken hormone preparations are generally more potent than mammalian preparations. Piscine material shows no activity.—S.L.L.G.

MCNEIL, R. 1971. Lean-season fat in a South American population of Black-necked Stilts. Condor, 73: 472–475.

MEIER, A. H., D. D. MARTIN, AND R. MACGREGOR, III. 1971. Temporal synergism of corticosterone and prolactin controlling gonadal growth in sparrows. Science, 173: 1240–1242.—Testis weight of photorefractory House Sparrows kept in constant light increased ($P < 0.01$) after a 2-week program of daily prolactin injections given 4 or 8 hours after corticosterone injections. No testis growth occurred in birds given prolactin 0, 12, 16, and 20 hours after corticosterone. Photosensitive White-throated Sparrows kept in constant light increased ($P < 0.01$) body weight, body fat, testis weight, and oviduct weight when given prolactin 12 hours after corticosterone, but gonad growth and fattening was inhibited in birds given prolactin 8 hours after corticosterone. "The seasonal cycle of reproductive photorefractoriness and photosensitivity is controlled by a changing relation between the daily rhythms of plasma concentrations of corticosterone and prolactin."—W.B.R.

PEAKER, M., S. J. PEAKER, J. G. PHILLIPS, AND A. WRIGHT. 1971. The effects of corticotrophin, glucose and potassium chloride on secretion by the nasal salt gland of the duck, *Anas platyrhynchos*. J. Endocrinol., 50: 293–299.—Prior treatment with corticotrophin significantly increases nasal secretion in ducks administered NaCl. Blood glucose and plasma potassium concentrations also increase. Glucose or KCl produce an effect similar to that corticotrophin treatment, suggesting that glucocorticoids influence the salt gland indirectly rather than, or as well as, directly.—S.L.L.G.

TAXONOMY AND PALEONTOLOGY

ASCENZI, A., AND A. G. SEGRE. 1971. A new Neandertal child mandible from an Upper Pleistocene site in southern Italy. Nature, 233: 280–283.—Associated remains include the proximal end of a tibia of the Great Auk.—W.B.R.

BROOKE, R. K. 1971. Taxonomic notes on some lesser known *Apus* Swifts. Bull. Brit.

Ornithol. Club, 91: 33–36.—Considers *A. alexandri* a full species, *A. unicolor* a race of *A. apus*, and records notes on *A. brodfieldi*, *A. batesi*, *A. aequatorialis*.—F.B.G.

BROOKE, R. K. 1971. Taxonomic and distributional notes on the African Chaeturini. Bull. Brit. Ornithol. Club, 91: 76–79.

ENG, R. L. 1971. Two hybrid Sage Grouse × Sharp-tailed Grouse from central Montana. Condor, 73: 491–493.

HARRISON, C. J. O. 1971. Flamingo (Phoenicopteridae) remains from the British Upper Eocene. Bull. Brit. Ornithol. Club, 91: 36–39.—The two flamingo species known from the upper Eocene of Britain have been assigned to the other families. Two shafts of bird bones originally described as *Elornis* (?) show characters suggesting that they originate from a flamingo similar to Recent species, which may be assigned to the Phoeniopteridae (author's summary).—F.B.G.

IRWIN, M. P. S., AND H. D. JACKSON. 1971. Geographical variation and relationships in *Apalis chirindensis* Shelley and *Apalis melanocephala* (Fisher and Reichenow) in Rhodesia and southern Mocambique. Bull. Brit. Ornithol. Club, 91: 49–56.—Character and habitat differences in these "discrete parapatric species" are described.—F.B.G.

PAYNE, R. B. 1971. Paradise Whydahs *Vidua paradisaea* and *V. obtusa* of southern and eastern Africa, with notes on differentiation of the females. Bull. Brit. Ornithol. Club, 91: 66–76.—Detailed morphological comparisons and studies of vocal mimicry of nest hosts reveal three distinct species, *V. paradisaea*, *V. obtusa*, and *V. interjecta*.—F.B.G.

PAYNTER, R. A., JR. 1971. Notes on the habits and taxonomy of *Rhodospingus cruentus*. Bull. Brit. Ornithol. Club, 91: 79–81.—This monotypic genus is better placed in the Thraupinae than the Emberizinae.—F.B.G.

WATSON, G. E., AND G. J. DIVOKY. 1971. Identification of *Diomedea leptorhyncha* Coues 1866, an albatross with remarkably small salt glands. Condor, 73: 487–489.

OBITUARIES

ALBERT HAZEN WRIGHT, a Member of the A.O.U. since 1906 and an Elective Member since 1919, died on July 5, 1970. Born in Hamlin, New York on August 15, 1879, his interest in natural history was evident early in his life. He took his A.B. (1904), M.A. (1905) and Ph.D. (1908) all at Cornell University, and from that time until his retirement, Professor Wright taught vertebrate and systematic zoology at his alma mater. In 1910 he married Anna Allen, sister of the late Arthur A. Allen, who was to be his companion in field and study for the next 46 years.

While best known as a herpetologist, Wright had a truly remarkable grasp of all the vetebrates. Not content with the primary topic of any given field excursion, he would discourse on all living things to his students. On late May trips to Lake Ontario for ichthyological studies, Wright would detour many miles to point out the Upland Plover on its nesting grounds.

In 1909 the American Philosophical Society published "Vertebrates of the Cayuga Lake Basin, New York." Co-authored with H. D. Reed, the annotated list contains 254