PERIODICAL LITERATURE

EDITED BY HERBERT W. KALE II[1]

A Renamed Journal

Western Birds (formerly California Birds).—With the name change, effective with Volume 4, No. 1 (1973), geographic coverage has been expanded to encompass all states and provinces from the Rocky Mountains westward (including Alaska and Hawaii), western Texas, and adjacent portions of Mexico and the Pacific Ocean. General content and objectives continue to be restricted to field studies. Photographic essays are a new feature.—L.C.B.

Anatomy and Embryology

Batt, B. D. J., and G. W. Cornwell. 1972. The effects of cold on Mallard embryos. J. Wildl. Mgmt. 36: 745–751.

Billard, R. S., and P. S. Humphrey. 1972. Molts and plumages in the Greater Scaup. J. Wildl. Mgmt. 36: 765–774.—Describes molt of 727 *Aythya marila*—525 adults and 202 juveniles—for the period from October to May.—L.H.F.

Cooper, J. A., and B. D. J. Batt. 1972. Criteria for aging Giant Canada Goose embryos. J. Wildl. Mgmt. 36: 1267–1270.

Nichols, H. A. J., and T. D. Nichols. 1973. St. Vincent Parrot: plumage polymorphism, juvenile plumage and nidification. Bull. Brit. Ornithol. Club 93: 120–123.—Within a wide variety of plumage polymorphism, two major morphs are identified that have previously been considered as the immature and adult plumages. The juvenile and adult plumages of any individual are identical.—F.B.G.

Parsons, F. E. 1968. Pterylography. Libraries Board of South Australia, Occ. Paps. Zool. 1: 60 pp.—An atlas containing fairly detailed annotated drawings of the wing and body pteryloses of 35 Australian species, 26 passerines; also notes (especially on wing-loading) on others. The drawings were made mostly in the late 1920s and were not edited before publication (obsolete common, scientific names, no index) but are nevertheless a useful reference.—M.H.C.

Siegfried, W. R. 1973. Wing moult of Ruddy Ducks in Manitoba. Bull. Brit. Ornithol. Club 93: 98–99.—Adds Ruddy Duck to the list of *Oxyura* that molt their remiges twice annually. Manitoba population appears to molt their wings before migrating south in the fall and again before they return to the breeding grounds. —F.B.G.

Slatick, E. R. 1974. Sharp eyes: bird vision. Pennsylvania Game News 45 (5): 11–14.—Reviews anatomy, structure, and adaptations of bird vision.—J.T.D.

Behavior

Baker, M. C. 1974. Foraging behavior of Black-bellied Plovers (*Pluvialis squatarola*). Ecology 55: 162–167.—Feeding strategy during fall and spring migration is more stereotyped in this species than in other shorebirds previously studied, and may be correlated with specialization on polychaetes as principal prey. Search

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time decreases with increased diversity of prey, but time required to capture and eat items varies widely with prey type.—C.R.B.

BEIGHTOL, D. R., AND D. E. SAMUEL. 1973. Sonographic analysis of the American Woodcock's peent call. J. Wildl. Mgmt. 37: 470–475.—Analysis of calls of 36 male *Philohela minor*, 18 from both West Virginia and Canada, indicated that variation between birds was greater than intraindividual variation. Gives recommendations for recording methods that will allow further study of singing ground fidelity, local movements, and singing male census.—L.H.F.

BIRD, J., J. ALCOCK, AND W. J. ERCKMANN. 1973. Starlings stealing worms from [American] Robins. Wilson Bull. 85: 480–482.

BOLEN, E. G., AND M. K. RYLANDER. 1973. Copulatory behavior in *Dendrocygna*. Southwestern Naturalist 18: 348–350.—Describes copulation between captive *D. autumnalis* and a *D. autumnalis* × *D. arborea* hybrid.—J.J.D.

BOLLINGER, R. C., AND E. BOWES. 1973. Another chapter in the "Ornithological Mystery Story." Amer. Birds 27: 741–742.—Further confirmation of "kicker" song given by Virginia Rail (*Rallus limicola*). Authors suggest that this rare vocalization might also be uttered by some other rail.—E.E.

BROEKHUYSEN, G. J. 1973. Behavioural responses of Dabchicks *Podiceps ruficollis* to disturbances while incubating. Ostrich 44: 111–117.—Disturbed birds almost always cover their eggs when they leave the nest. Behavior is interpreted as derived from displacement nest-building.—R.B.P.

BROWN, R. J. 1973. Precocious lek behavior in Sharp-tailed Grouse chicks. Wilson Bull. 85: 472–473.

CONNER, R. N. 1973. Screech Owl displaces nesting Pileated Woodpeckers. Bird-Banding 44: 316.

COWAN, P. J. 1973. Parental calls and the approach behavior of young Canada Geese: a laboratory study. Canadian J. Zool. 51: 647–650.—*Branta canadensis* goslings selectively approached an individual parental call that was paired in training with a familiar visual stimulus.—R.M.E.

CUTRIGHT, N. J. 1973. Three birds species use same nest during one breeding season. Kingbird 23: 192.—*Turdus migratorius*, *Hirundo rustica*, and *Troglodytes aedon*, in that sequence.—M.C.B.

DAVIS, S., B. S. DAVIS, AND J. DAVIS. 1973. Some factors affecting foraging behavior of Plain Titmice. Condor 75: 481–482.

DEAN, W. R. J. 1973. Notes on the juvenile behaviour of *Bubo africanus*. Ostrich 44: 134–136.—Feeding behavior of a captive young Spotted Eagle Owl includes "killing" actions on dead prey.—R.B.P.

DOANE, L. A. 1972. Behavior of Black Terns on their nesting grounds. IBB News 44: 136–144.—Notes on nesting, courtship, incubation, and parental behavior of *Chlidonias niger* from 1966 through 1972 at a nesting colony near Crivitz, Wisconsin.—D.M.F.

DUNFORD, R. D., AND R. B. OWEN, JR. 1973. Summer behavior of immature radio-equipped Woodcock in central Maine. J. Wildl. Mgmt. 37: 462–469.—Fifteen immature *Philohela minor* used old fields more than any other cover type. Immature males and females had similar activity patterns. Little nocturnal activity was recorded.—L.H.F.

EVANS, R. M. 1973. Differential responsiveness of young Ring-billed Gulls and Herring Gulls to adult vocalizations of their own and other species. Canadian J. Zool. 51: 759–770.—Young of both species responded preferentially to calls of the Ring-billed Gull.—R.M.E.

GOODWIN, D. 1973. Some calls and behaviour patterns of the Plumbeous and Rufous Pigeons. Bull. Brit. Ornithol. Club 93: 103–108.—Both species utter a call similar to a probably homologous call of the Picazuro Pigeon. The flight intention movements of these three species are also very similar. The Rufous Pigeon's wing ruffling movements are similar to those of the Picazuro and White-crowned Pigeons. (From author's summary.)—F.B.G.

HARRINGTON, B. A. 1973. Aggression in winter resident and spring migrant White-throated Sparrows in Massachusetts. Bird-Banding 44: 314–315.—Wintering *Zonotrichia albicollis* were dominant over newly arrived spring migrants at a feeder. After a few days the pattern of dominance changed to one in which White-throats with brightly colored crowns were dominant over those with dull crowns.—B.A.H.

HOUGH, F. N. 1973. Whip-poor-will alights on observer's head. Kingbird 23: 141.

KILHAM, L. 1973. Colonial-type nesting in Yellow-shafted Flickers as related to staggering of nesting times. Bird-Banding 44: 317–318.—Because *Colaptes auritus* becomes progressively less aggressive after nest excavation begins, other flickers may intrude territories and establish nearby nest sites.—B.A.H.

KREBS, J. R. 1973. Social learning and the significance of mixed-species flocks of chickadees (*Parus* spp.). Canadian J. Zool. 51: 1275–1288.—When individuals of one species in an aviary found food, individuals of the other species tended to search for food near the site of the find.—R.M.E.

KURATA, A., AND Y. HIGUCHI. 1973. Roosting behavior of two species of crows in Mie Prefecture. Misc. Repts. Yamashina Inst. Ornithol. 6: 489–506.—A comparison between *Corvus macrorhynchos* (mountains to hills) and *C. corone* (hills to plains). Describes four stages in formation of daily roosting flocks, and locations, seasonal fluctuation, population composition (especially breeding vs. nonbreeding individuals), and numbers of roosts. (In Japanese; short summary and all captions and tables in English.)—K.C.P.

KURODA, N. H. 1973. Crows in Tokyo, a continuous observation. Misc. Repts. Yamashina Inst. Ornithol. 6: 507–550.—Observations from April 1969 to spring 1972 in central Tokyo of a nesting pair of *Corvus macrorhynchos* and seasonal changes of roosting behavior of mixed flocks of this species and *C. corone*. (In Japanese, including tables, with English summary.)—K.C.P.

LAPERRIERE, A. J., AND A. O. HAUGEN. 1972. Some factors influencing calling activity of wild Mourning Doves. J. Wildl. Mgmt. 36: 1193–1199.

MARTI, C. D. 1973. House Sparrows feeding young at night. Wilson Bull. 85: 483.

MUNDY, P. J. 1973. Vocal mimicry of their hosts by nestlings of the Great Spotted Cuckoo and Striped Crested Cuckoo. Ibis 115: 602–604.—*Clamator glandarius* similar to *Corvus albus* and *Clamator levaillantii* similar to *Turdoides jardinei*.—R.W.S.

PAYNE, R. B. 1973. Wingflap dialects in the Flappet Lark *Mirafra rufocinnamomea*. Ibis 115: 270–274.

REESE, J. G. 1973. Red-winged Blackbird feeding on horseshoe crab eggs. Wilson Bull. 85: 483.

SISSON, R. F. 1974. Aha! It really works! Natl. Geogr. 145: 143–147.—Describes unusual fishing behavior (using fish pellets) of Green Heron (*Butorides virescens*) at Miami Seaquarium, Florida. Photographs substantiate discovery.—J.T.D.

SPOFFORD, S. H. 1973. Unusual method of disposal of fecal sacs removed from nest. Kingbird 23: 192.—*Melospiza melodia* carefully placed at least 40 sacs on a 10-foot length of wire fence.—M.C.B.

STEWART, P. A. 1973. Basis for pre-roost gatherings of Starlings and Brown-headed Cowbirds. Bird-Banding 44: 315–316.—*Sturnus vulgaris* and *Molothrus ater* in North Carolina form preroosting flocks in which they remain until a night roosting site has been selected and settled by Common Grackles (*Quiscalus quiscula*).—B.A.H.

STEWART, R. M., S. M. LONG, AND M. STEWART. 1972. Observations on the nest behavior of the California Scrub Jay. California Birds 3: 93–95.

SWANSON, G. E., AND A. B. SARGEANT. 1972. Observation of nighttime feeding behavior of ducks. J. Wildl. Mgmt. 36: 959–961.—A night vision scope was used to watch ducks feeding at night. Emergence pattern of insects appeared to be a major factor influencing feeding activity.—L.H.F.

TESTER, J. R., AND A. WATSON. 1973. Spacing and territoriality of Woodcock *Scolopax rusticola* based on roding behaviour. Ibis 115: 135–138.—[The Oxford dictionary defines roding "to perform a regular evening flight during the breeding season" (woodcock) and "to fly landward in the evening" (wildfowl)].—H.W.K.

THIELCKE, G. 1973. On the origin of divergence of learned signals (songs) in isolated populations. Ibis 115: 511–516.—Based on playback of songs of treecreepers (*Certhia brachydactyla* and *C. familiaris*). Presents hypotheses to explain results.—R.W.S.

THORNBURG, D. D. 1973. Diving duck movements on Keokuk Pool, Mississippi River. J. Wildl. Mgmt. 37: 382–389.—Within a week of arrival, diving ducks established a diurnal rhythm of movement related to disturbance and food. Human disturbance caused mass movements. Most feeding was at night.—L.H.F.

THORPE, G. S. 1974. [Letter, in "The Amateur Scientist" section.] Sci. Amer. 230 (2): 110–112.—Discusses design and operation of directional microphone for recording birdsongs. Includes diagrams.—J.T.D.

TURCOTTE, W. H. 1973. On behavior of the Horned Lark. Mississippi Kite 5: 12–13.

VAUCHER, C. 1971. Notes sur l'éthologie de l'Aigle de Bonelli *Hieraaëtus fasciatus*. Nos Oiseaux 31: 101–111.

WARD, P., AND A. ZAHAVI. 1973. The importance of certain assemblages of birds as "information-centres" for food-finding. Ibis 115: 517–534.—Excellent review of function of certain assemblages. Predation-pressure is regarded as primary factor shaping assemblages as means of efficient exploitation of unevenly distributed food sources.—R.W.S.

DISTRIBUTION AND ANNOTATED LISTS

BROWN, D. E. 1973. Western range extensions of Scaled Quail, Montezuma Quail and Coppery-tailed Trogon in Arizona. Western Birds 4: 59–60.

CAIN, B. W., AND K. A. ARNOLD. 1974. Black-bellied Tree Duck (*Dendrocygna autumnalis*) nesting in the Central Brazos Valley of Texas. Southwestern Naturalist 18: 474–475.—An inland range extension for this species.—J.J.D.

CHANDLER, P. F. 1974. Mountain Plover in Alabama. Amer. Birds. 28: 124.—First report, near Magnolia Springs, 6 January 1973. Photograph.—E.E.

CLEGG, M. 1972. Partial albinism in skuas. Brit. Birds 65: 530.—Records for *Catharactes skua* and *Stercorarius parasiticus*.—J.J.D.

FEARE, C. J. 1973. *Numenius minutus*, *Falco subbuteo* and *Caprimulgus europaeus* in the Seychelles. Bull. Brit. Ornithol. Club 93: 99–101.—Details of three new records for the Malagasy Region.—F.B.G.

FIELD, G. D. 1973. Subalpine and Grasshopper Warblers in Sierra Leone. Bull. Brit. Ornithol. Club 93: 101–103.—Detailed sight records of these two warblers well south of their known wintering range.—F.B.G.

FISK, L. H., AND D. M. CRABTREE. 1974. Black-hooded Parakeet: new feral breeding species in California? Amer. Birds 28: 11–13.—A pair of escaped *Nandayus nanday*, a southern South American species, bred successfully in Loma Linda, San Bernardino County, California in 1972 and 1973.—E.E.

GERMAIN, M., J. DRAGESCO, F. ROUX, AND H. GARCIN. 1973. Contribution à l'ornithologie du Sud-Cameroun. 1. Non-passériformes. Oiseau 43: 119–182. 2. Passériformes. Oiseau 43: 212–259.—Systematic and well annotated list of 204 non-passerines and 180 passerines. Includes new records for the country and specification of some distributional areas. The *camerunensis* form (Sjöstedt) of *Podica senegalensis* (Vieillot) appears to be only a melanistic phase of the species. Chronological considerations and the study of intermediate specimens indicate that *Pitta angolensis* is conspecific with *P. reichenowi*. (English summary.)—A.C.

GÉROUDET, P. 1973. Notes sur le Pouillot de Bonelli oriental, sa distribution et sa voix. Oiseau 43: 75–79.—First record of *Phylloscopus bonelli orientalis* in four localities of Bulgaria, Greece, and Turkey. *P. b. orientalis* differs from *P. b. bonelli* mostly by its song and call. It is also less abundant and more sparsely distributed than *P. b. bonelli*. Its call, briefly described, seems to have been overlooked by previous workers.—A.C.

HOWE, T. 1974. Ground Dove in Massachusetts. Amer. Birds 28: 126.—*Columbigallina passerina* seen and photographed near Chatham 7 October 1973.—E.E.

HUNN, E. 1973. First record for the Swamp Sparrow in Washington State. Western Birds 4: 31–32.

JEHL, J. R., JR. 1973. Late autumn observations of pelagic birds off southern California. Western Birds 4: 45–52.

LAWSON, C. S. 1973. Notes on Pelecaniformes in Nevada. Western Birds 4: 23–30. —First records for *Sula nebouxii* and *S. leucogaster* and additional sightings of *Pelecanus occidentalis* and *Fregata magnificens*.—L.C.B.

MANOLIS, T. 1973. The Eastern Kingbird in California. Western Birds 4: 33–44.—First nest of *Tyrannus tyrannus*, with a listing and analysis of all records.—L.C.B.

NETTLESHIP, D. N., AND R. D. MONTGOMERIE. 1974. The Northern Fulmar, *Fulmarus glacialis*, breeding in Newfoundland. Amer. Birds 28: 16.—First known nesting (six nests with young) found in Witless Bay, 23–29 July 1973.—E.E.

NEWMAN, G. A. 1974. Recent bird records from the Guadalupe Mountains, Texas. Southwestern Naturalist 19: 1–7.—Notes on 17 species including first specimen records for eight species.—J.J.D.

NOVAES, F. C., AND T. PIMENTEL. 1973. [Observations on the avifauna of the campos of Bragança, state of Pará, Brazil.] Mus. Goeldi no ano do Sesquicentenário (Publ. Avulsas 20): 229–246.—List of birds recorded from the "campos de várzea" in northeastern Pará, with ecological notes and some data on stomach contents. (In Portuguese, short English summary.)—E.E.

OLROG, C. C. 1973. Dos adiciones a la avifauna Argentina. Neotropica 19: 145–146.—*Macropsalis forcipata* and *Dysithamnus stictothorax*, taken at Dos de Mayo, Misiones.—E.E.

OLROG, C. C. 1973. Notas ornithologicas. 9. Sobre la colección del Instituto Miguel Lillo de Tucumán. Acta Zool. Lilloana 30: 7–11.—Range extensions in Argentina, supported by specimens, of *Eudyptes chrysolophus, Pygoscelis p. papua, Tigrisoma fasciatum pallescens, Phalacrocorax gaimardi, Geotrygon frenata margaritae, Adelo-*

myia melanogenys inornata, and *Basileuterus signatus flavovirens*. Describes *Catharus dryas blakei* subsp. nov. from Orán, extreme northern Salta, and southeastern Jujy (dedicated to E. R. Blake). (English summary.)—E.E.

RIPLEY, S. D., AND S. L. OLSON. 1973. Reidentification of *Rallus pectoralis deignani*. Bull. Brit. Ornithol. Club 93: 115.—Actually *Rallus striatus striatus*. *R. pectoralis* consequently must be removed from the Celebes list.—F.B.G.

SPEICH, S., AND T. A. PARKER, III. 1973. Arizona bird records, 1972. Western Birds 4: 53–57.—First annual report of the Arizona Bird Committee, approving and detailing unusual records of 22 species.—L.C.B.

THIBAULT, B., AND J. C. THIBAULT. 1973. Liste préliminaire des oiseaux de *Polynésie* orientale. Oiseau 43: 55–74.—Systematic and annotated list of 88 species, some of which are extinct, in eastern Polynesia, 12 species were introduced.—A.C.

WEBSTER, F. S., JR. 1974. Resident birds of the Gomez Farias region, Tamaulipas, Mexico. Amer. Birds 28: 3–10.—This area includes the northernmost cloud forest in Middle America. Lists the vegetation zone occupied by each species.—E.E.

WHITE, C. M. N. 1973. Migrant *Pernis apivorus* in the Indonesian Archipelago. Bull. Brit. Ornithol. Club 93: 116.—Two old specimens of the race *orientalis* extend range of migrant Eurasian Honey Buzzards east of Wallace's Line.—F.B.G.

ECOLOGY AND POPULATIONS

BEAUDOIN, J. C., AND J. P. CORMIER. 1973. La migration des Barges à queue noire, *Limosa limosa* L., dans la région d'Angers (Maine-et-Loire) au printemps 1971. Oiseau 43: 16–31.—Describes daily cycles and movements of the Black-tailed Godwit and its feeding niche. During spring up to 15,000 individuals were censused on one feeding ground.—A.C.

BENDELL, J. F., D. G. KING, AND D. H. MOSSOP. 1972. Removal and repopulation of Blue Grouse in a declining population. J. Wildl. Mgmt. 36: 1153–1165.—Resident adult and yearling *Dendragapus obscurus* interact to regulate the level of the breeding population.—L.H.F.

BERGMAN, R. D. 1973. Use of southern boreal lakes by postbreeding Canvasbacks and Redheads. J. Wildl. Mgmt. 37: 160–170.—Concentrations of predominately male *Aythya valisineria* and *A. americana* occurred on large lakes in southwestern Manitoba during the fall staging period. Human disturbance of molting Pochards appears to influence adversely their selection of molting lakes.—L.H.F.

CAMPBELL, H. 1972. A population study of Lesser Prairie Chickens in New Mexico. J. Wildl. Mgmt. 36: 689–699.—A total of 285 *Tympanuchus pallidicinctus* were mist-netted on 16 booming grounds. Life tables for males based on capture-recapture data from three booming grounds indicated a mean annual mortality of 65%. Female mortality was higher. Hunters took 1100 birds per year with no harmful effect on the population. Males were faithful to the same booming ground throughout life but moved several miles to feed in fall and winter.—L.H.F.

CAMPBELL, H., D. K. MARTIN, P. E. FERKOVICH, AND B. K. HARRIS. 1973. Effects of hunting and some other environmental factors on Scaled Quail in New Mexico. Wildl. Monogr. 34: 1–49.—*Callipepla squamata pallida* were studied for 9 years on two closely comparable tracts, one with heavy hunting and the other with no hunting. Breeding success was correlated with spring-summer rainfall and density of food-producing forbs. Both populations underwent a complete turnover every 6 years. Mean annual mortality averaged 83%, and mortality rates for young and adult females were higher than those of corresponding categories of males. During

some years, quail dispersed an average of 18 miles, some as far as 60 miles. Hunting had no important effect on the hunted population.—L.H.F.

CHOUSSY, D. 1971. Étude d'une population de Grands-Ducs *Bubo bubo* dans le Massif central. Oiseaux 31: 37–56.—Population studies of the Eagle Owl.—A.C.

DAVIS, J. R., AND R. J. STOLL, JR. 1973. Ruffed Grouse age and sex ratios in Ohio. J. Wildl. Mgmt. 37: 133–141.—An average of 735 *Bonasa umbellus monticola* wing and tail samples were collected from hunters for 9 consecutive years to obtain fall sex and age ratios. The mean age composition was 53% juveniles in the southern hill counties and 3.7 young-per-adult hen in northeastern Ohio. Juvenile sex ratios were nearly 50:50, but adult sex ratios were unbalanced favoring males.—L.H.F.

EWASCHUK, E., AND D. A. BOAG. 1972. Factors affecting hatching success of densely nesting Canada Geese. J. Wildl. Mgmt. 36: 1097–1106.—*Branta canadensis* nesting in densities of 8.0, 10.7, and 9.2 had nesting successes of 60, 27, and 69% respectively. Desertion was the major cause in nest losses. Pairs winning interactions with neighboring pairs and nonterritorial geese were more successful. The presence of the gander was a key factor in successful interactions.—L.H.F.

FRANCIS, W. J. 1973. Accuracy of census methods of territorial Red-winged Blackbirds. J. Wildl. Mgmt. 37: 98–102.—Male *Agelaius phoeniceus* were watched during 55 1-hour periods on 2 ha in an old-field community in Ohio. The probability of sighting a given male was variable for all techniques. The Hewitt roadside-count method gave the best accuracy, but underestimated the population.—L.H.F.

HICKMAN, G. L. 1972. Aerial determination of Golden Eagle nesting status. J. Wildl. Mgmt. 36: 1289–1292.—A two-place Super Cub proved efficient and accurate for locating and determining breeding densities, reproductive success, and ages of nesting *Aquila chrysaetos canadensis*.—L.H.F.

JACKSON, H. D. 1972. Comment on *Telophorus zeylonus restrictus* Irwin, the Chimanimani Mountains race of the Bokmakierie (Aves: Laniidae). Arnoldia (Rhodesia) 6 (2): 1–5.—Notes on additional specimens, behavior, and duetting. Total adult population is estimated to be no more than 400. Type locality is corrected to "Mussape River at 1,400 m, Chimanimani Mountains, Moçambique."—R.B.P.

JEHL, J. R., JR., M. A. E. RUMBOLL, AND J. P. WINTER. 1973. Winter bird populations of Golfo San Jose, Argentina. Bull. Brit. Ornithol. Club 93: 56–63.—The first quantitative data on populations of birds for any part of the Argentine coast. Estimates believed to be accurate within 10%. Includes noteworthy observations of these little known birds.—F.B.G.

JOHNSON, J. C. 1972. 1970 Ruby-throated Hummingbird activities. IBB News 44: 211–224.—Trapping, banding, and age and sex ratios of *Archilochus colubris* near Springfield and Hollister, Missouri.—D.M.F.

JOHNSON, N. K. 1972. Breeding distribution and habitat preference of the Gray Vireo in Nevada. California Birds 3: 73–78.

KELLEY, K. B., AND A. J. BETTS. 1972. Nine years of Cardinal banding. IBB News 44: 9–12.—Repeats, recoveries, sex ratios, and survival rates of 366 *Richmondena cardinalis* trapped at Baldwin City, Kansas 1963–1972.—D.M.F.

KING, J. G., F. C. ROBARDS, AND C. J. LENSINK. 1972. Census of the Bald Eagle breeding population in southeast Alaska. J. Wildl. Mgmt. 36: 1292–1295.—The breeding population of *Haliaeetus leucocephalus alascanus* probably exceeded 8000.—L.H.F.

KIRSCH, L. M., A. T. KLETT, AND H. W. MILLER. 1973. Land use and prairie grouse population relationships in North Dakota. J. Wildl. Mgmt. 37: 449–453.—Over an 8-year period, *Tympanuchus cupido* declined from 48 males to none, and

Pedioecetes phasianellus declined from 166 males to 57. Hay lands did not support either species, and pasture lands were of no apparent value to Prairie Chickens and of only limited value for Sharp-tailed Grouse.—L.H.F.

KUENZEL, W. J., AND R. G. WIEGERT. 1973. Energetics of a Spotted Sandpiper feeding on brine fly larvae (Paracoenia; Diptera; Ephydridae) in a thermal spring community. Wilson Bull. 85: 473–476.

KURODA, N. H. 1972. A bird census in the Imperial Palace for 1971. Misc. Repts. Yamashina Inst. Ornithol. 6: 410–423.—The seventh annual such census, taken monthly (except August) between April 1971 and March 1972. Two species, *Acrocephalus arundinaceus* and *Bubulcus ibis*, were added to the palace list, which is now 81 species (49 in 1971). The avifauna in general has been rather stable over the years, but egrets and ducks are decreasing, possibly as a result of local use of pesticides. The heron colony suffers from predation by *Corvus macrorhynchus*. (Text in Japanese, as, unfortunately, are the many tables which, if bilingual, would have made the data of the paper accessible. Short English summary.)—K.C.P.

KURODA, N. H. 1973. Spring bird census in the Ryu Kyu Is. (1972). Misc. Repts. Yamashina Inst. Ornithol. 6: 551–568.—Census taken on Okinawa 24–28 May, Ishigaki 31 May and 5 June, and Iriomote 1–4 June. In total, 51 species were recorded (30 land birds, 16 water birds, 5 sea birds). The small number of resident land birds is thought to be attributable to the position of the Ryu Kyu group, in that it is peripheral to both tropical and palearctic species' ranges. The most abundant species were *Hypsipetes amaurotis*, *Streptopelia orientalis*, and *Zosterops "palpebrosa"* (the Ryu Kyu population is assigned to *Z. japonica* in recent revisions). On Okinawa *Cettia diphone* was the most abundant species, but it was not found on the other islands. Most coastal and marsh birds were uncommon, and some of those recorded were migrants. The decline of *Alcedo atthis* may be attributable to insecticides. (In Japanese; summary, picture captions and two summarizing tables in English.)—K.C.P.

LAPERRIERE, A. J. 1972. Seasonal precipitation influence on Mourning Dove breeding populations in Iowa. J. Wildl. Mgmt. 36: 979–981.

LEE, F. B., AND A. D. KRUSE. 1973. High survival and homing rate of hand-reared wild-strain Mallards. J. Wildl. Mgmt. 37: 154–159.—A total of 648 flightless *Anas platyrhynchos* were held 25 to 45 days in an enclosed pond in North Dakota before their release. Of the 627 ducklings that reached flight stage, 68 were shot in 15 states. Migration patterns were similar to wild-reared birds. Of 270 females, 89 returned to the release area and had nesting and brooding success similar to wild birds.—L.H.F.

LENZ, M., J. HINDEMITH, AND B. KRÜGER. 1972. Zum Brutvorkommen der Mehlschwalbe (*Delichon urbica*) in West-Berlin 1969 und 1971. Vogelwelt 93: 161–180.—The House Martin shows a preference for nesting on high-rise apartment buildings under balconies enclosed on three sides. The breeding population in villages surrounding West Berlin is declining. Nesting on high-rise buildings probably corresponds more closely to natural rock faces and the buildings might provide a better microclimate. (In German; English summary.)—N.A.M.V.

MARTIN, C., AND M.-C. SAINT GIRONS. 1973. Evolution d'un dortoir hivernal de Hiboux brachyotes, *Asio flammeus* (Pontoppidan, 1783), au cours d'une pullulation de Campagnols des champs, *Microtus arvalis* (Pallas, 1779). Oiseau 43: 51–54.—Interesting note on changing densities of Short-eared Owls in a winter (December 1966–April 1967) roosting area during a year of overpopulation of field vole. Pellets revealed 5 mammalian species.—A.C.

MARTIN, D. J. 1973. Selected aspects of Burrowing Owl ecology and behavior. Condor 75: 446–456.

MOREL, M.-Y., AND G. MOREL. 1973. Premières observations sur la reproduction du Moineau doré, *Passer luteus* (Licht.), en zone semi-aride de l'Ouest africain. Oiseau 43: 97–118.—Complete breeding study of colonies of Golden Sparrow during rainy and dry seasons. Smaller clutch size during dry season is the main difference noted. (English summary.)—A.C.

MORSE, D. H. 1973. Interactions between tit flocks and Sparrowhawks *Accipiter nisus*. Ibis 115: 591–593.

NAKAMURA, T. 1972. Home range structure of a population of *Aegithalos caudatus*. 2. Home range and territorialism in breeding season. Misc. Repts. Yamashina Inst. Ornithol. 6: 424–488.—A major paper on a species that had been said by Lack and others to be "non-territorial." Discusses fully and carefully the data in the context of various definitions of territoriality and comparisons with other species. Author proposes a "classification of bird social structure based on family flock unit." (In English and Japanese.)—K.C.P.

NETTLESHIP, D. N. 1973. Breeding ecology of Turnstones *Arenaria interpres* at Hazen Camp, Ellesmere Island, N.W.T. Ibis 115: 202–217.—Describes breeding habitat, aspects of breeding cycle, food sources and availability, and summer diet, and discusses the importance of food to the breeding schedule.—R.W.S.

NILSSON, L. 1973. [The international waterfowl censuses in Sweden 1970/71 and 1971/72. Vår Fågelvärld 32: 269–281.—Extensive use of maps, diagrams, and tables summarizes methods and results. (English summary.)—L.DEK.L.

NOVAES, F. C. 1970. [Ecological distribution and abundance of birds in a tract of forest of the lower Rio Guamá (State of Pará, Brazil).] Bol. Mus. Paraense Emilio Goeldi, Zool. No. 71: 1–54.—Birds were mist-netted once a week from May 1966 to April 1967 in three types of woodland in the Guamá Ecological Research Area near Belém. Describes the vegetational character and avifauna, and lists all birds netted with dates of capture and recapture, and habitat. (In Portuguese; English summary.)—E.E.

NOVAES, F. C. 1973. Aves de uma vegetação secundária na foz do Amazonas. Publ. Avulsas Mus. Goeldi 21: 1–88.—An ecological study of the avifauna in a second growth area near Belém, Pará, Brazil. Each species was analyzed as to ecological preference, vertical stratification, abundance, and method of procuring food. Includes useful tables, photographs, and ecological drawings. Novaes agrees with Klopfer and MacArthur (1960) that non-Passeriformes have narrower niches and are less plastic than Passeriformes, and with Slud (1960) that in South America the suboscines are not being replaced by the oscines, are well-adapted to their original habitat, the humid tropical forests, and the two groups are essentially complementary. A useful and well-organized paper. (In Portuguese; English summary.) —E.E.

OWEN, M. 1973. The winter feeding ecology of wigeon at Bridgwater Bay, Somerset. Ibis 115: 227–243.—A study of behavior and food items indicates that *Anas penelope* are flexible in feeding habit and able to modify their behavior in response to food supply and population disturbances.—R.W.S.

OWENS, R. A., AND M. T. MYRES. 1973. Effects of agriculture upon populations of native passerine birds of an Alberta fescue grassland. Canadian J. Zool. 51: 697–713.—Farm operations were detrimental to all five species that occupied native grasslands, but permitted ingress of two additional species.—R.M.E.

PEAKALL, D. B. 1973. New York state waterfowl count, January 1973. Kingbird 23: 80–82.—Tabulation of ground and aerial surveys by state regions.—M.C.B.

PERRINS, C. M., M. P. HARRIS, AND C. K. BRITTON. 1973. Survival of Manx Shearwaters *Puffinus puffinus*. Ibis 115: 535–548.—Breeding success at Skokholm Island, Pembrokeshire and data on survival based on banding results. Discusses advantages of large fat stores in young at fledging.—R.W.S.

PORATH, W. R., AND P. A. VOHS, JR. 1972. Population ecology of Ruffed Grouse in northeastern Iowa. J. Wildl. Mgmt. 36: 793–802.

PRICE, L. W. 1973. The local ecological effect of Long-tailed Jaegers nesting in the subarctic. Arctic 26: 253–255.

PURROY, F. J. 1973. La répartition des deux Grimpereaux dans les Pyrénées. Oiseau 43: 205–211.—Compares results of censuses of *Certhia familiaris* and *C. brachydactyla* using the strip survey technique in five forest types. (Spanish summary.)—A.C.

RICHDALE, L. E., AND J. WARHAM. 1973. Survival, pair bond retention and nest-site tenacity in Buller's Mollymawk. Ibis 115: 257–263.—Banding data for *Diomedea bulleri* on Snares Islands indicate minimum constant mortality of 11.1%. Breeding birds tend to retain both mate and nest site. Discusses effect of age on egg size.—R.W.S.

RIDPATH, M. G. 1972. The Tasmanian Native Hen, *Tribonyx mortierii*. 1. Patterns of behavior. CSIRO Wildl. Res. 17: 1–51; 2. The individual, the group, and the population. CSIRO Wildl. Res. 17: 53–90; 3. Ecology. CSIRO Wildl. Res. 17: 91–118.—An impressive comprehensive study based on almost 2000 hours of fieldwork of a semi-isolated, color-banded, and wild population of a flightless gallinule endemic to Tasmania.—B.A.H.

ROBBEN, T., AND G. TUDOR. 1973. Christmas counts as breeding bird censuses. Amer. Birds 27: 566–570.—Proposes a June count in Christmas count area, with practical suggestions and actual example taken on 3 June 1972 on Long Island, New York. In northern U.S. and Canada a date earlier than 15 June makes determination of breeding birds difficult, despite the "psychological" advantage of maximizing the species count by inclusion of many transient species and individuals. —E.E.

ROBERTSON, R. J. 1973. Optimal space of the Red-winged Blackbird: spatial and temporal patterns of nesting activity and success. Ecology 54: 1085–1093.—Nesting colonies in marshes are larger and more synchronous than upland colonies and are subject to a reduced predation rate. Variations in timing are probably correlated with phenology of vegetation in nesting habitat. Colony size in uplands is probably limited by resource abundance. Predation rates on different sized colonies are interpreted by means of the Holling predation model (Canadian Entomol. 91: 293–320).—C.R.B.

ROUX, F. 1973. Recensement d'oiseaux aquatiques dans le delta du Sénegal. Oiseau 43: 2–15.—Areal wildfowl censuses reveal 200,000 paleartic ducks, mostly *Anas querquedula* and *A. acuta*, but only 40,000 endemic species, of which *Dendrocygna viduata* is the most abundant.—A.C.

RUCNER, D., AND R. RUCNER. 1971. Beitrag zur Kenntnis der Tierwelt einiger Waldgesellschaften in Kroatien. Larus 23: 129–201.—A study of sample plots of 23 types of biotic communities in 17 localities along a NE-SW transect of Croatia. Records occurrence and frequency of birds, reptiles, amphibians, arachnoids, Myriopods, isopods, gastropods, and annellids in each community. This study, along with

others, proves that plant associations, so well-known in Central Europe, can serve as habitat indicators for animal synecological studies. Birds, the most mobile of the animal groups, show narrow attachment to vegetation types. This important paper shows the advanced state of field synecological work in Central Europe, in which ornithologists often take a leading role. (In Serbo-Croatian with German summary.)—M.D.F.U.

RUDY, C. 1971. Age ratios in fall warblers. IBB News 43: 97–101.—Fall age ratios for six warbler species for 1966–70 at Summit Lake, Wisconsin. Tennessee and Nashville warblers were about 1.5% AHY; Yellow-rumped (Myrtle), Black-throated Green and Palm Warblers, about 8.3%; and Blackpoll about 35% AHY. —D.M.F.

RYDER, R. A. (Ed.). 1973. 26th winter bird-population study. Amer. Birds 27: 666–703.—Studies cover 63 habitats in over 30 states and provinces of the United States and Canada.—E.E.

SCHIFFERLI, L. 1973. The effect of egg weight on the subsequent growth of nestling Great Tits *Parus major*. Ibis 115: 549–558.—Valuable data collected in 1971 in Wytham Wood near Oxford, and discussion of ecological significance.—R.W.S.

SCHNEBEL, G. 1972. Die Ökologie der Baumläufer (*Certhia brachydactyla*) und (*Certhia familiaris*) in Ostniedersachsen. Vogelwelt 93: 201–215.—On 31 study areas in eastern Lower Saxony, varying in size from 3 to 80 ha, the Brown Creeper occurs in all types of forest but appears to prefer conifers. The short-toed Tree Creeper shows a strong preference for oaks. The breeding density of the Brown Creeper is constant between 0.8 and 1.1 pairs/10 ha regardless of forest type, that of the Short-toed Treecreeper between 0.4 and 6.7 pairs/10 ha. Replacement of oak forest by conifers threatens the continued existence of the Short-toed Tree Creeper. (In German; English summary.)—N.A.M.V.

SCHREIBER, R. W., AND E. A. SCHREIBER. 1973. Florida's Brown Pelican population: Christmas bird count analyses. Amer. Birds 27: 711–715.—Counts indicate a possible decline in the late 1940s and a stable population since 1950.—E.E.

SHORT, L. L. 1973. Notes on Okinawan birds and Ryukyu Island zoogeography. Ibis 115: 264–267.—Based on observations in February 1972.—R.W.S.

SKAGGS, M. B. 1972. White-crowned Sparrow *gambelii* race ratio in Northern Ohio. IBB News 44: 44–47.—During 1941–72, 1197 *Zonotrichia leucophrys* were examined in spring and fall migration in northeastern Ohio. The majority were *Z. l. leucophrys*, but 1.3% were *Z. l. gambelii*. The 16 *gambelii* handled were equally distributed between spring and fall. Several intermediates between the two races were found.—D.M.F.

STEPNEY, P. H. R., AND D. M. POWER. 1973. Analysis of the eastward breeding expansion of Brewer's Blackbird plus general aspects of avian expansions. Wilson Bull. 85: 452–464.

STEWART, R. E., AND H. A. KANTRUD. 1973. Ecological distribution of breeding waterfowl populations in North Dakota. J. Wildl. Mgmt. 37: 39–50.—Distribution of breeding waterfowl on various wetland types in North Dakota was determined during 1967–69. About 77% of the 3.2 million acres of wetlands are natural basins and are utilized by 76% of the state's breeding duck population. The majority of duck use occurred in the Prairie Pothole Region.—L.H.F.

STEWART, R. M. 1972. Nestling mortality in swallows due to inclement weather. California Birds 3: 69–70.—Continuous rains cause mass starvation in Tree and Cliff Swallow young.—L.C.B.

STOTT, R. S., AND D. P. OLSON. 1972. Differential vulnerability patterns among three species of sea ducks. J. Wildl. Mgmt. 36: 775–783.—Observations on 1530 scoters of all three Nearctic species indicated that *Melanitta deglandi* was least vulnerable, *M. perspicillata* was intermediate, and *Oidemia nigra* was extremely vulnerable to hunting.—L.H.F.

STURGES, F. W., R. T. HOLMES, AND G. E. LIKENS. 1974. The role of birds in nutrient cycling in a northern hardwoods ecosystem. Ecology 55: 149–155.—Birds inhabiting the Hubbard Brook Experimental Forest, New Hampshire, contain a small percentage of available nutrients as determined from measurements of 11 elements. Their major impact upon nutrient flux occurs through removal of nutrients in population losses during migration.—C.R.B.

THEBERGE, J. B., AND G. C. WEST. 1973. Significance of brooding to the energy demands of Alaskan Rock Ptarmigan chicks. Arctic 26: 138–148.

THOMPSON, D. 1973. Feeding ecology of diving ducks on Keokuk Pool, Mississippi River. J. Wildl. Mgmt. 37: 367–381.—The relationship between diving ducks and their food resources was investigated to obtain baseline information to measure the impact of channelization. Nearly 20 million diving duck days were recorded annually. Night dispersal and feeding seemed important because daytime disturbance concentrated 90% of the ducks on 28% of the area. Species of diving ducks harvest about 25% of the benthic standing crop each fall. Fingernail clams were the single most important food.—L.H.F.

TURČEK, F. J. 1972. Birds and mammals in successions of terrestrial ecosystems. Misc. Repts. Yamashina Inst. Ornithol. 6: 401–409.—More than 50 ecosystems that have been described in print are grouped into 16 seres. The birds and mammals of these are divided into three dynamically defined groups: "1) progressive species entering populations, 2) regressive, disappearing species and 3) conservative constant species populations, called in the present paper the core of series." Gives only summary figures, not lists of species. Core group species for successions in certain European ecosystems are identified by name. These tend to be mostly predators (carnivores or insectivores).—K.C.P.

VERNON, C. J. 1973. Avian biomass in a suburb of Pietermaritzburg. Ostrich 44: 142–143.—100 kg/km^2, mainly doves.—R.B.P.

VOIGTS, D. K. 1973. Food niche overlap of two Iowa icterids. Condor 75: 392–399.

WALLACE, D. I. M. 1973. Sea-birds at Lagos and in the Gulf of Guinea. Ibis 115: 559–571.—Observations between September 1967 and June 1971 recorded high diversity of species in the inshore waters. *Chlidonias niger* was most common bird. Presents seasonal abundance of several species and a valuable discussion.—R.W.S.

WILBUR, S. R. 1973. The Red-shouldered Hawk in the western United States. Western Birds 4: 15–22.—Recent records, listed in an appendix, indicate no population decline in *Buteo lineatus elegans* during the past 50 years.—L.C.B.

WITTENBERG, J. 1972. Der Brutbestand von Mäusebussard (*Buteo buteo*), Rotmilan (*Milvus milvus*) und Habicht (*Accipiter gentilis*) 1958 und 1970 bei Braunschweig und das Problem der Vergleichbarkeit. Vogelwelt 93: 227–235.—The breeding density of the Buzzard, Red Kite, and Goshawk on four study tracts in northern Germany in 1958 were reexamined in 1970. The Buzzard population remained almost stable, the kite breeding population declined to half, and the Goshawk was present in the same remnant population of 1958. Optimal breeding habitat for the Buzzard consists of a mozaic of woods (for nesting) and surrounding fields (for feeding). The wooded area plus edge area is the "habitation area." The ratio of edge area to wood area provides an idea of favorability, and only areas with about

the same index are comparable with respect to population density. (English summary.)—N.A.M.V.

WRAKESTRAW, G. F. 1973. The 1973 Wyoming Bald and Golden Eagle survey. Amer. Birds 27: 716–718.—A January survey (excluding Yellowstone Park) indicated some 9000 Golden Eagles, 600 Bald Eagles, and about 900 unidentified.—E.E.

ZANG, H. 1972. Über Zweit- und Drittbruten der Tannenmeise (*Parus ater*). Vogelwelt 93: 180–192.—The occurrence of third clutches in the Coal Tit in The Netherlands and Germany. Factors favoring a third clutch are an early start of the breeding season, a good food supply, age of the female, experience and loyalty to the breeding territory, and a short period between clutches. (English summary.)—N.A.M.V.

ZWICKEL, F. C. 1972. Removal and repopulation of Blue Grouse in an increasing population. J. Wildl. Mgmt. 36: 1141–1152.—Behavioral interactions between resident adults and yearling *Dendragapus obscurus* in spring regulate the numbers of breeding birds.—L.H.F.

GENERAL BIOLOGY

ALSOP, F. J., III. 1973. Notes on the Hoary Redpoll on its central Canadian Arctic breeding grounds. Wilson Bull. 85: 484–485.

ANDERSEN-HARILD, P. 1971. [Molting grounds of the Mute Swan (*Cygnus olor*) in Denmark.] Dansk Ornithol. Foren. Tids. 65: 89–97.—In 1968, 36,813 molting Mute Swans were counted in Denmark and southwest Sweden. (In Danish; German summary.)—H.A.J.

ANDERSON, B. W., AND R. L. TIMKEN. 1972. Sex and age ratios and weights of Common Mergansers. J. Wildl. Mgmt. 36: 1127–1133.—As winter temperatures decreased in Minnesota and South Dakota in November and in Oklahoma in December, average weights and the proportion of adult male *Mergus merganser* increased in both regions.—L.H.F.

ASH, J. S. 1973. *Luscinia megarhynchos* and *L. luscinia* in Ethiopia. Ibis 115: 267–269.—Notes from 3 years' fieldwork on the Nightingale and Thrush Nightingale.—R.W.S.

BENSON, C. W., AND M. P. STUART IRWIN. 1972. The Thick-billed Cuckoo *Pachycoccyx audeberti* (Schlegel) (Aves: Cuculidae). Arnoldia (Rhodesia) 5 (33): 1–24.—Summarizes all data known for this uncommon cuckoo. Only known host is *Prionops retzii*, whose eggs the cuckoo's eggs mimic. Its hosts in Madagascar is unknown (a vangid?). Closest relatives appear to be *Clamator* cuckoos.—R.B.P.

BIRD, T. 1971. Bluejay killed by Yellowjacket. IBB News 43: 68.

BOWMAN, M. C. 1973. Mourning Warbler nest in marginal habitat. Kingbird 23: 141–142.—In the Catskill Mountains, New York *Oporornis philadelphia* used atypical nest material in climax forest.—M.C.B.

BROOKE, R. K. 1973. Distributional and biological notes on the Mottled Swift in Rhodesia. Ostrich 44: 106–110.—*"Tachymarptis" aequatorialis* has pamprodactyl newly-hatched young, unlike the zygodactyl young of *Apus* spp. Description of breeding colony notes nonsynchronization of nesting birds. General notes on breed- and feeding.—R.B.P.

BROOKE, R. K. 1973. Notes on the distribution and food of the Cape Eagle-Owl in Rhodesia. Ostrich 44: 137–139.—*Bubo capensis* food pellets showed a diet varied with insects, scorpions, elephant-shrews, hedgehogs, shrews, hares, and small rodents.—R.B.P.

BROOKE, R. K., AND R. P. BORRETT. 1972. A new biological host of the Didric Cuckoo. Ostrich 43: 235.—Nestling *Chrysococcyx caprius* in nest of Marico Flycatcher *Bradornis mariquensis*. What is a nonbiological host?—R.B.P.

BROOKE, R. K., AND J. H. GROBLER. 1973. Notes on the foraging, food and relationships of *Corvus albus* (Aves: Corvidae). Arnoldia (Rhodesia) 6 (10): 1–13.—Pied Crows are largely vegetarians but also scavenge and kill slow animals. "Soap was usually nibbled and dropped: it may well be that it is not very palatable to Pied Crows." The authors suggest vegetarian leaning may have aided the spread of this crow from the Palearctic by lessening competition with scavengers and predators.—R.B.P.

BROOKE, R. K., J. H. GROBLER, M. P. S. IRWIN, AND P. STEYN. 1972. A study of the migratory eagles *Aquila nipalensis* and *A. pomarina* (Aves: Accipitridae) in southern Africa, with comparative notes on other large raptors. Occ. Pap. Natl. Mus. Rhodesia B5 (2): 61–114.—Lesser Spotted Eagles eat mainly termites and Steppe Eagles live entirely on them in Africa, taking as vertebrates only superabundant nestling *Q. quelea*. Tabulates all known sight observations and specimens. Includes a list of other termite-feeding birds (but likely *all* nonforest African birds take them sometimes). Photographs of eagle plumages.—R.B.P.

BROOKE, R. K., AND A. C. KEMP. 1973. Specimen data on *Bucorvus leadbeateri*. Bull. Brit. Ornithol. Club 93: 89–92.—Describes molt sequence that does not correspond to that described for *B. abyssinicus* and is not basically centrifugal. Also notes on soft part colors, maturation, and sexual dimorphism.—F.B.G.

BURTON, P. J. K. 1973. Composite nest of Short-crested Flycatcher *Myiarchus ferox*. Bull. Brit. Ornithol. Club 93: 114–115.—Three nest cups, one with four eggs, one with one egg, and one under construction were found together in a crevice of a low cliff. The whole structure was composed of mammal fur with snakeskin along the edges of the cup. Apparently only one bird was visiting it.—F.B.G.

BURTON, P. J. K. 1973. Non-passerine weights from Panama and Colombia. Bull. Brit. Ornithol. Club 93: 116–118.—Lists 163 weights of 79 species.—F.B.G.

COLEBROOK-ROBJECT, J. F. R. 1973. The breeding of the Madagascar Banded Kestrel. Bull. Brit. Ornithol. Club 93: 108–111.—Describes feeding and pre-egg-laying behavior, and nesting of *Falco zoniventris*. Includes description of the first known egg.—F.B.G.

CROSSIN, R. S., O. H. SOULE, R. G. WEBB, AND R. H. BAKER. 1973. Biotic relationships in the Canon del Rio Mezquital, Durango, Mexico. Southwestern Naturalist 18: 187–200.—Describes the vegetation of the cañon and the vertebrate fauna in each area. A total of 85 bird species were recorded and some collected.—J. J. D.

DEAN, W. R. J. 1973. Notes on a Lanner with malformed bill, and on hornbills feeding on oil palm fruits. Bull. Brit. Ornithol. Club 93: 55.—Lanner with "cross bill" apparently survived by scavenging food along roads. Crowned, Yellow-billed, and Laughing Hornbills recorded feeding on oil palm nuts.—F.B.G.

DELAREUELLE, R. R. 1973. Clark's Nutcracker caught in cholla cactus. Western Birds 4: 61.

DE ROY, T. A. 1974. Galapagos Hawks. Pacific Discovery 27 (1): 14–20.—Photographs and text illustrate the life of *Buteo galapagoensis*.—J.T.D.

DEVILLERS, P. 1972. The juvenal plumage of Kittlitz's Murrelet. California Birds 3: 33–38.—First detailed description (with photos) of juvenal *Brachyramphus brevirostre*; taken from the only California specimen, collected 16 August 1969. —L.C.B.

DWERNYCHUK, L. W., AND D. A. BOAG. 1972. How vegetative cover protects duck nests from egg-eating birds. J. Wildl. Mgmt. 36: 955–958.—Avian predators apparently use disturbed vegetation as a cue in locating well-hidden nests.—L.H.F.

EASTERLA, D. A., AND R. E. BALL. 1973. The Rock Wren in Missouri. Wilson Bull. 85: 479–480.

EDEBURN, R. M. 1973. Great Horned Owl impaled on barbed wire. Wilson Bull. 85: 478.

ELLISON, L. N. 1973. Seasonal social organization and movements of Spruce Grouse. Condor 75: 375–385.

FARKAS, T. 1973. Notes on the biology and ethology of Heuglin's Robin *Cossypha heuglini*. Ostrich 44: 95–105.—Year-round territories are maintained in part by duetting; sometimes the male "duets" alone. General description of breeding biology and development of young.—R.B.P.

GASTON, A. J. 1973. The ecology and behaviour of the Long-tailed Tit. Ibis 115: 330–351.—Nine-month study of *Aegithalos caudatus* at Wytham Wood. Stable flocks occupy defended territories in autumn. Supernumerary birds help feed the young, but the author concludes that they do not contribute to nesting success.—R.W.S.

GROSZ, T., AND C. F. YOCOM. 1972. Food habits of the White-winged Scoter in northwestern California. J. Wildl. Mgmt. 36: 1279–1282.—Mollusks were found in 85% of the stomachs of 106 *Melanitta fusca dixoni*.—L.H.F.

HAMERSTROM, F., AND F. HAMERSTROM. 1971. A method of recording molt. IBB News 43: 107–108.—Uses molt cards and a feather numbering system to record molt in hawks.—D.M.F.

HANSON, L. E., AND D. R. PROGULSKE. 1973. Movements and cover preferences of pheasants in South Dakota. J. Wildl. Mgmt. 37: 454–461.—Thirteen *Phasianus colchicus* hens had an average home range of 90 acres and used alfalfa more than any other cover type.—L.H.F.

HOLMES, W. C. 1973. Observations on the nesting ecology of Barn Swallows. Mississippi Kite 5: 8–11.

HOVETTE, C. 1971. Notes sur la reproduction du Faucon crécerelette *Falco naumanni* en Provence. Oiseaux 31: 82–90.—Breeding biology of Lesser Kestrel.—A.C.

INMAN, D. L. 1973. Cellulose digestion in Ruffed Grouse, Chukar Partridge, and Bobwhite Quail. J. Wildl. Mgmt. 37: 114–121.—Two diets of 15.4 and 9.6% alpha-cellulose were fed to *Alectoris chukar*, *Bonasa umbellus*, and *Colinus virginianus*. The higher cellulose diet seemed to inhibit the digestion of other foods. Grouse and Chukars digested cellulose with greater efficiency than Bobwhites.—L.H.F.

JACKSON, H. D. 1972. Avifaunal survey of the Umtali Municipal Area. 1. The Muneni River collection: a comparison of samples from riparian forest and miombo woodland. Arnoldia (Rhodesia) 6 (1): 1–10.—Netting records for two habitats include weights and breeding condition. Unfortunately, author did not save the ovary from *Indicator variegatus*!—R.B.P.

JONES, R. E., AND K. E. HUNGERFORD. 1972. Evaluation of nesting cover as protection from magpie predation. J. Wildl. Mgmt. 36: 727–732.—During a 10-day test period, *Pica pica hudsonia* destroyed 81 of 529 simulated nests placed in nine vegetative types. Vegetative cover that decreased the visibility of eggs provided the greatest protection.—L.H.F.

KEMP, A. C., AND M. I. KEMP. 1972. A study of the biology of Monteiro's Hornbill. Ann. Transvaal Mus. 27: 255–271.—*Tockus monteiri* in South West Africa has a breeding biology adapted to an arid habitat. It nests in holes in rocks, the female

has a larger role in feeding the young than do females in other *Tockus* species, and the clutch size is large (5). The interval between laying of successive eggs in a clutch increases as the clutch proceeds; the same intervals occur in hatching.—R.B.P.

KROLL, J. C., K. A. ARNOLD, AND R. F. GOTIE. 1973. An observation of predation by native fire ants on nestling Barn Swallows. Wilson Bull. 85: 478–479.

LAFRANCE, F. 1973. Observations of Three-toed Woodpeckers in an Adirondack bog with notes on plumages. Kingbird 23: 190–191.—Plumage variations in *Picoides tridactylus* and *P. arcticus* make field identification difficult.—M.C.B.

LOKEMOEN, J. T., AND H. F. DUEBBERT. 1973. An upland nest of the Redhead far from water. Wilson Bull. 85: 468.

MATHIASSON, S. 1973. Molting grounds of Mute Swans (*Cygnus olor*) in Sweden, their origin and relation to the population dynamics of Mute Swans in the Baltic area. Viltrevy 8: 392–452.—Immature and adult nonbreeding Mute Swans spend the molt period mainly in shallow marine offshore waters, rich in food, and where the helpless birds are safe from predators. About one-fifth of the total Baltic population—up to 12,000 birds—molt at a few Swedish localities where the great concentrations of birds have been studied since the 1950s. The gradual increase in numbers that reached an apparent peak in the late 1960s reflects the increase of the Baltic breeding population. Several of the molting grounds have reached their capacity, so far as food is concerned, and their molting population is declining. Generally philopatry to the molting grounds is high; banding and marking data indicate that the same birds use the grounds year after year, until they start to breed at the age of 3 years when they stay to molt with their young. Nonbreeding adults are faithful to their molting grounds.—M.D.F.U.

MAURITZ, M. 1971. Weasel kill. IBB News 43: 65.—*Mustela frenata* and *Parus atricapillus*.—D.M.F.

MAY, T. A., AND C. E. BRAUM. 1972. Seasonal foods of adult White-tailed Ptarmigan in Colorado. J. Wildl. Mgmt. 36: 1180–1186.

MCCARTHY, T. 1973. Ocular impalement of a Great Horned Owl. Wilson Bull. 85: 477–478.

MCKNIGHT, D. E. 1974. Dry-land nesting by Redheads and Ruddy Ducks. J. Wildl. Mgmt. 38: 112–119.—Both *Aythya americana* and *Oxyura jamaicensis* nested on dry land in Utah apparently in response to an abundance of proteinaceous food. L.H.F.

MILLER, R. S. 1973. The brood size of cranes. Wilson Bull. 85: 436–441.

MOLLHAGEN, T. R., R. W. WILEY, AND R. L. PACKARD. 1972. Prey remains in Golden Eagle nests: Texas and New Mexico. J. Wildl. Mgmt. 36: 784–792.

NAROSKY, S. 1973. Observations on the nesting of *Spartonoica maluroides*. Ibis 115: 412–413.—First authentic nest of the Bay-capped Wren-spinetail.—R.W.S.

PARKES, K. C. 1972. On some British Museum specimens of the Unicolored Blackbird *Agelaius cyanopus*. Bull. Brit. Ornithol. Club 92: 171–172.—Relates details of plumage and localities of previously unexamined specimens to his 1966 study of geographic variation in this species.—F.B.G.

PARMELEE, D. F., AND R. B. PAYNE. 1973. On multiple broods and the breeding strategy of Arctic Sanderlings. Ibis 115: 218–226.—Examination of two ovaries of *Calidris alba* indicates that some females lay two clutches in a season, one incubated by the male and the other by the female. Discusses ecological conditions selecting for the mating systems involved.—R.W.S.

PAYNE, R. B. 1973. Individual laying histories and the clutch size and numbers of eggs of parasitic cuckoos. Condor 75: 414–438.

PENNYCUICK, C. J. 1973. The soaring flight of vultures. Sci. Amer. 229 (6): 102–109.—"The six common vultures of East Africa can make a round trip of as much as 200 kilometers by skillfully riding updrafts. How they do so is examined with the aid of a powered glider." Contains many diagrams.—J.T.D.

PIMM, S. L. 1973. The molt of the European Whitethroat. Condor 75: 386–391.

POTTER, E. F. 1973. Breeding behavior of the Summer Tanager. Chat 37: 35–39.—Discusses nest site selection, construction, courtship feeding, incubation, care and feeding of nestlings, song, territory and nest defense, and maintenance activities. Study of five nests indicates that males do not incubate eggs or brood young. Describes an all-red female whose mate was unusually attentive with frequent courtship feedings, feeding of nestlings, and nest defense.—E.F.P.

PRICE, F. E., AND C. E. BOCK. 1973. Polygyny in the Dipper. Condor 75: 457–459.

RAMAKKA, J. M. 1972. Effects of radio-tagging on breeding behavior of male [American] Woodcock. J. Wildl. Mgmt 36: 1309–1312.—Miniature radio transmitters reduced courtship activities and caused apparent atypical breeding behavior of *Philohela minor*.—L.H.F.

REYNOLDS, J. F. 1972. Little Stint incubating eight eggs. Brit. Birds 65: 529.—Probably from two female *Calidris minuta* but outcome of nest unknown.—J.J.D.

RENOUF, R. N. 1972. Waterfowl utilization of beaver ponds in New Brunswick. J. Wildl. Mgmt. 36: 740–744.—Brood use by five species of ducks was higher on active than on inactive beaver ponds.—L.H.F.

RUSCHI, A. 1973. Beija-flores (hummingbirds). Mus. Biol. "Prof. Mello-Leitão." 172 pp.—English accounts of the biology of 37 forms (36 species) of hummingbirds (chiefly Brazilian), all but two of which are illustrated in color in C. H. Greenewalt's hummingbird book. While the information included has appeared in Ruschi's papers published in Portuguese, it is a convenience to have these somewhat summarized versions.—E.E.

RUSCHI, A. 1973. [Some observations on *Phaethornis*, *Heliactin*, *Colibri*, *Lophornis*, *Glaucis*, *Campylopterus*, *Chrysolampis*, *Topaza*, *Chlorostilbon*, *Stephanoxis*, *Melanotrochilus*, *Eutoxerus*, *Heliothrix*, *Popelairia*, *Discosura*, *Oreotrochilus*, *Ensifera*, *Oxypogon*, *Boissoneaua*, *Aglaeactis*, *Ramphomicron*, *Aglaiocercus*, *Augastes*, *Amazilia*, *Anthracothorax*, *Heliomaster*, *Hylocharis*, *Calliphlox*, *Clytolaema*, *Thalurania* spp.] Bol. Mus. Biol. "Prof. Mello-Leitão," Ser. Zool., Nos. 38–73.—Each of these 48 papers, 2 to 4 pages long, deals with a species of South American hummingbird, mostly a Brazilian subspecies; nos. 38 and 40 each deal with two species. Summarizes for each form the geographic range, habitat, total length, bill length, body weight, temperature, weight and measurements of eggs, number of wingbeats per second, nest structure, incubation and nestling periods, courtship display, voice, bathing and roosting habits, feeding methods and favored food plants, field recognition, and in some cases other biological information, including migration. Lists Brazilian, Spanish, and English names with the latter based on Meyer de Schauensee (1966), but sometimes with a subspecific name unidiomatically inserted between the specific modifier and the group name. Where pictured in Greenwalt's "Hummingbirds" (1960), the number of the plate is given. Although much of the data have been published in earlier papers by Ruschi, this is a very convenient compendium. (In Portuguese; brief English summary.)—E.E.

RUSCHI, A. 1973. Beija-flores do Brasil [hummingbirds of Brazil]. Bol. Mus. Biol. "Prof. Mello-Leitão," Ser. Zool. No. 75: 1–47.—The first part of a projected three-

volume work on the hummingbirds of Brazil. This part includes an introduction (with map showing the zoogeographic provinces of Brazil), maintenance and reproduction in captivity, role in nature, topography of hummingbirds, systematic characters, key for the classification of nests (with diagrams), key for the identification of Brazilian genera (with diagrams). (In Portuguese.)—E.E.

RYAN, R. A. 1972. Body weight and weight changes of wintering diving ducks. J. Wildl. Mgmt. 36: 759–765.

SEALY, S. G. 1973. Breeding biology of the Horned Puffin on St. Lawrence Island, Bering Sea, with zoogeographical notes on the North Pacific puffins. Pacific Sci. 27: 99–119.—This study compares considerable information on both *Fratercula corniculata* and *Lunda cirrhata*. Although based on small sample sizes, the descriptions from arrival on the nesting grounds to departure are thorough and include such items as body weight, sex ratios, body and brood patch temperatures, and growth of the young along with the usual nesting parameters.—J.J.D.

SIEGFRIED, W. R. 1973. Summer food and feeding of the Ruddy Duck in Manitoba. Canadian J. Zool. 51: 1293–1297.—*Oxyura jamaicensis* foraged selectively in places rich in midge larvae (*Chironomus*: Tendipedidae), which constituted the main food item for males, females, and ducklings.—R.M.E.

SIOPES, T. D., AND W. O. WILSON. 1973. Determination of the sex of Chukar Partridge at hatching. J. Wildl. Mgmt. 37: 239–240.

SNOW, B. K. 1973. Social organization of the Hairy Hermit *Glaucis hirsuta*. Ardea 61: 94–105.—The male of this hummingbird attracts two, rarely three females, to his territory and helps to defend their nests. In contrast to all other hummers so far studied, the male stays with the females throughout the breeding season and his main role appears to be that of nest defense. The pair is very vocal around the nest. The unusual social organization is probably the result of a restricted nest site selection that concentrates nests along rivers and roads and leads to easy detection of nests by enemies.—N.A.M.V.

SNOW, D. W., AND B. K. SNOW. 1973. The breeding of the Hairy Hermit *Glaucis hirsuta* in Trinidad. Ardea 61: 106–122.—A 5-year study based on several hundred nests of a forest hummingbird. Of 223 nests, 13% had more than two eggs, probably because females laid in each other's nest. This is considered the result of this species' unusual social organization. The dicussion deals with the timing of the breeding season, adaptations of the nest and nestling, and nesting success in comparison with that of other hummer species in tropical forests.—N.A.M.V.

SNYDER, N. F., AND H. A. SNYDER. 1973. Experimental study of feeding rates of nestling Cooper's Hawks. Condor 75: 461–463.

SOUTIERE, E. C., H. S. MYRICK, AND E. G. BOLEN. 1972. Chronology and behavior of American Wigeon in Texas. J. Wildl. Mgmt. 36: 752–758.

SPEICH, S., AND M. A. SPEICH. 1972. Floating and swimming in passerines. California Birds 3: 65–68.—Suggests that the spreading of remiges and rectrices has survival value in buoyancy and is not merely part of the swimming movement.—L.C.B.

STEWART, P. A. 1973. Electrocution of birds by an electric fence. Wilson Bull. 85: 476–477.

STEYN, P., AND D. Y. BARBOUR. 1973. Observations at a Little Banded Goshawk's nest. Ostrich 44: 140–141.—*Accipiter badius* fed lizards to its young.—R.B.P.

STEYN, P., AND J. SCOTT. 1973. Notes on the breeding biology of the Wood Owl. Ostrich 44: 118–125.—*Ciccaba woodfordii* biology at the nest. Eats mainly insects. Illustrated by Steyn's characteristically fine photographs.—R.B.P.

STOTT, R. S., AND D. P. OLSON. 1973. Food-habitat relationship of sea ducks on the New Hampshire coastline. Ecology 54: 996–1007.—Examines habitat, food preferences, and food availability for the White-winged Scoter, Surf Scoter, Black Scoter, Oldsquaw, Common Goldeneye, Bufflehead and Red-brested Merganser on 34 km of coastline during 1968–70.—C.R.B.

SVOBODA, F. J., AND G. W. GULLION. 1972. Preferential use of aspen by Ruffed Grouse in northern Minnesota. J. Wildl. Mgmt. 36: 1166–1180.—*Bonasa umbellus* preferred male flower buds of quaking over bigtooth aspen during 4 of 8 years. —L.H.F.

TIGNER, J. R. 1973. Golden Eagle predation on a pronghorn fawn. Southwestern Naturalist 18: 346–348.—Examination of a 2-month-old *Antilocapra americana* undoubtedly killed by *Aquila chrysaetos*.—J.J.D.

VAN SCHAREN, K. 1972. Little Ringed Plovers nesting in mussel shell. Brit. Birds 65: 528–529.—*Charadrius dubius* in Belgium.—J.J.D.

VERMEER, K. 1973. Food habits and breeding range of Herring Gulls in the Canada prairie provinces. Condor 75: 478–480.

VERMEER, K. 1973. Some aspects of the nesting requirements of Common Loons in Alberta. Wilson Bull. 85: 429–435.

WILEY, J. W., AND F. E. LOHRER. 1973. Additional records of non-fish prey taken by Ospreys. Wilson Bull. 85: 468–470.

WILLIAMS, L. E., JR. 1974. Flight attainment in Wild Turkeys. J. Wildl. Mgmt. 38: 151–152.

WOOD, C. J. 1973. The flight of albatrosses (a computer simulation). Ibis 115: 244–256.

YALDEN, D. W. 1973. Prey of the Abyssinian Long-eared Owl *Asio abyssinicus*. Ibis 115: 605–606.—Analysis of pellets collected in the Urgana Valley of Bale Province, Ethiopia reveal for the first time the mammalian prey of this rare owl.—R.W.S.

MANAGEMENT AND CONSERVATION

ALLEN, T. B. 1974. Vanishing wildlife of North America. Natl. Geogr. Soc. Spec. Publ. 208 pp.—Discusses North America's dwindling wildlife resources and what steps must be taken to insure their survival. Surveys research currently underway to determine status of fishes, reptiles, amphibians, birds, and mammals. Illustrated with color photographs and paintings throughout.—J.T.D.

ANDERSON, W. L., AND P. L. STEWART. 1973. Chemical elements and the distribution of pheasants in Illinois. J. Wildl. Mgmt. 37: 142–153.—Juvenile *Phasianus colchicus* hens were collected from good and poor range. Elemental makeups of calcitic grit from the two areas were almost identical. Birds on poor range were possibly suffering from deficiencies of Cu and Mo and from excesses of Ba, Sr, Al, Ti, Zr, Na, K, Mg, and Cr. Ba was the only element that was relatively high in both pheasants and grit on poor range and might complicate the problem because Ca levels are low.—L.H.F.

ANON. 1974. The plight of the pelicans. Sea Secrets 18 (1): 8–9.—Studies conducted by R. Schreiber and Seabird Research Inc. show that plastic rings from six-packs and discarded hooks and fishing lines pose serious problems for South Florida populations of Brown Pelicans (*Pelecanus occidentalis*).—J.T.D.

ARNDT, R. 1974. The Ibis of Birecik. Aramco World Mag. 25 (1): 27–28.—The Bald Ibis, *Geronticus eremita*, widespread in Bavaria, Austria, and Switzerland up

until the 17th century now nests only on a 60-foot limestone cliff in the southeastern Turkish town of Birecik. Pesticides, human disturbance, and extremely narrow cliff ledges are the chief cause of mortality of eggs and young. Widening of nesting ledges has reduced mortality from eggs and young falling off, but human interference from increasingly closer and higher buildings is responsible for 75% of losses. Unless the Bireciklis help protect these birds, the Bald Ibis will be extinct within a few years.—H.W.K.

BERRY, R. B. 1972. Reproduction by artificial insemination in captive American Goshawks. J. Wildl. Mgmt. 36: 1283–1288.

BRAUN, C. E., R. K. SCHMIDT, JR., AND G. E. ROGERS. 1973. Census of Colorado White-tailed Ptarmigan with tape-recorded calls. J. Wildl. Mgmt. 37: 90–93.—Male challenge calls were used to locate and capture male *Lagopus leucurus* in Colorado. Chick distress calls were effective in locating and capturing broody hens.—L.H.F.

DE GRAZIO, J. W., J. F. BESSER, T. J. DECINO, J. L. GUARINO, AND E. W. SCHAFER, JR. 1972. Protecting ripening corn from blackbirds by broadcasting 4-aminopyridine baits J. Wildl. Mgmt. 36: 1316–1320.

EDWARDS, W. R., AND R. J. SMITH.1972. Pecking as a mortality factor in penned Ring-necked Pheasant chicks. J. Wildl. Mgmt. 36: 972–974.

ERICKSON, R. E., AND J. E. WIEBE. 1973. Pheasants, economics, and land retirement programs in South Dakota. Wildl. Soc. Bull. 1: 22–27.

GREENBERG, R. E., S. L. ETTER, AND W. L. ANDERSON. 1972. Evaluation of proximal primary feather criteria for aging wild pheasants. J. Wildl. Mgmt. 36: 700–705.—The proximal primary shaft diameters (PPSP) of 307 wild Illinois *Phasianus colchicus* cocks were used to separate juvenile and adult age classes with 92% reliability. The 285 hens captured in fall were separated into age classes with 90% reliability. The reliability of the technique increased in winter. Oven drying of primaries was essential to obtain repeatable measurements.—L.H.F.

GREENWOOD, R. J., AND A. B. SARGEANT. 1973. Influence of radio packs on captive Mallards and Blue-winged Teal. J. Wildl. Mgmt. 37: 3–9.—Back-mounted radio packs that were attached to 30 captive *Anas platyhrynchos* and *A. discors* caused increased weight loss, skin irritation in axillary region and on back, and a partial aversion to swimming.—L.H.F.

HAMERSTROM, F., F. N. HAMERSTROM, AND J. HART. 1973. Nest boxes: An effective management tool for [American] Kestrels. J. Wildl. Mgmt. 37: 400–403.—During a 5-year period, 8 to 12 broods of *Falco sparverius* were produced on a 50,000-acre tract in Wisconsin where only three pairs were found in the previous 20 years.—L.H.F.

PEREGRINE FUND NEWSLETTER. Lab. Ornithol. Cornell Univ., Ithaca, New York 14850.—The Peregrine Fund was established for the study and preservation of falcons and other birds of prey. Periodically reports on research activities will be published in the newsletter. Issue No. 1 (August 1973) reports on the 1973 captive breeding season (20 Peregrines, 7 Prairies, and 6 Lanners were reared from eggs produced by captive adults), describes efforts to save the world's most endangered bird of prey, *Falco punctatus*, on the island of Mauritius, and tells about the return of several Peregrines and Lanner Falcons to the wild in their respective native habitats. Presumably the newsletter is sent to those who contribute annually to the Peregrine Fund.—H.W.K.

RHODES, L. I. 1972. Success of Osprey nest structures at Martin National Wildlife Refuge. J. Wildl. Mgmt. 36: 1296–1299.—*Pandion haliaetus* adapted to artificial nest structures the first year and produce 1.4 young/nest.—L.H.F.

SCHLADWEILER, J. L., AND J. R. TESTER. 1972. Survival and behavior of hand-reared Mallards released in the wild. J. Wildl. Mgmt. 36: 1118–1127.—Of 179 hand-reared *Anas platyhrynchos* of two genetic strains released, 80 carried radio transmitters and 99 were banded. Of 56 radio-marked birds, 40 died within 21 days of release. Mink predation was the primary cause of death. No differences were noted in genetic strain or in tagging methods. Low survival was related to lack of wariness, tendency of birds to gather in large groups, and releases in habitat of poor quality.—L.H.F.

SELLERS, R. A. 1973. Mallard releases in under-stocked prairie pothole habitat. J. Wildl. Mgmt. 37: 10–22.—Female *Anas platyrhynchos* ducklings released near Minnedosa, Manitoba, increased breeding pairs from 12 to 66, but only 9 and 12% of the hens produced broods during the 2-year study.—L.H.F.

SNELLING, J. C. 1973. Artificial incubation of Sparrow Hawk [*Falco sparverius*] eggs. J. Wildl. Mgmt. 36: 1299–1304.

SNOW, C. 1972. Habitat management series for endangered species. Rept. No. 1: American Peregrine Falcon, *Falco peregrinus anatum*, and Arctic Peregrine Falcon, *F. p. tundris*. U.S. Dept. Interior Bur. Land Mgmt. Tech. Note. 35 pp.—A literature review and summary of current knowledge regarding the Peregrine Falcon. Succinctly reviews description, distribution, status and population trends, life history, reproduction, habitat requirements, protective measures instituted, limiting factors, and management techniques for the two subspecies. Also lists current research projects, authorities on the Peregrine, governmental and private organizations currently involved with this bird, and a selected bibliography. The series is designed to provide basic wildlife information for land-use planners but should also prove a useful general reference document on each species covered.—W.D.C.

SNOW, C. 1973. Habitat management series for endangered species. Rept. No. 5: Southern Bald Eagle, *Haliaeetus leucocephalus leucocephalus* and *H. l. alascans*. U.S. Dept. Interior Bur. Land Mgmt. Tech. Note. 58 pp.—A literature review and summary of current knowledge regarding the Bald Eagle. Reviews description, distribution, status and population trend, life history, reproduction, habitat requirements, limiting factors, protective measures instituted, and management techniques for the two subspecies. Also lists current research projects, authorities on the Bald Eagle, governmental and private organizations currently involved with this bird, and a selected bibliography.—W.D.C.

WILLIAMS, L. E., JR., AND R. W. PHILLIPS. 1973. Capturing Sandhill Cranes with alpha-chloralose. J. Wildl. Mgmt. 37: 94–97.—Thirty-nine of 266 *Grus canadensis* captured with alpha-chloralose died. Dosages of 0.45 to 0.50 g per cup of bait were most effective.—L.H.F.

WUNZ, J. 1974. What's happened to game refuges? Pennsylvania Game News 45 (5): 29–31.—"The keys to a successful turkey restoration or recovery program are wild-trapped breeding stock, assiduous Game Law enforcement, a conservation-educated public, and a regional harvest management policy."—J.T.D.

MIGRATION AND ORIENTATION

ABLE, K. P. 1973. The role of weather variables and flight direction in determining the magnitude of nocturnal bird migration. Ecology 54: 1031–1041.—Radar investigations at two sites in southeastern U.S. indicate land birds selectively fly with the wind during autumnal migration, and as a result frequently migrated in inappropriate directions. Volume of southward flight averaged about five times

larger than those in other directions, implying selection of proper weather conditions. Multivariate analyses show that wind direction, 24-h change in temperature, and an index of the synoptic weather situation account for most of the variability in magnitude of migration.—C.R.B.

ABLE, K. W. 1974. The changing seasons. [The fall migration 1 August–30 November 1973.] Amer. Birds 28: 22–121.—Discussions of weather conditions and migration patterns, population trends in some species, especially predators, unprecedented numbers of western shorebirds in the East, irruptions of Fulvous Tree Ducks, Goshawks, Rough-legged Hawks, Red Crossbills, and Pine Siskins. As always includes reports of accidentals, casuals, and extreme rarities.—E.E.

ELGOOD, J. H., C. H. FRY, AND R. J. DOWSETT. 1973. African migrants in Nigeria. Ibis 115: 1–45, 375–411.—Species accounts and a thorough discussion of many aspects of migration make this a major contribution.—R.W.S.

FLICKINGER, E. L., K. A. KING, AND O. HEYLAND. 1973. Pen-reared Fulvous Tree Ducks used in movement studies of wild populations. J. Wildl. Mgmt. 37: 171–175.—Pen-reared *Dendrocygna bicolor* were color-marked and released in southeast Texas. Of the 165 immature birds released, six birds were recovered over 50 miles from the release site, five were still in Texas, but the sixth was recovered in Veracruz, Mexico.—L.H.F.

HENNY, C. J. 1973. Drought displaced movement of North American Pintails into Siberia. J. Wildl. Mgmt. 37: 23–29.—Most of 230 *Anas acuta* recovered in eastern Asia from 1954 to 1970 were shot on the breeding grounds in May. The movement was correlated with overflight of the southern portion of the North American breeding range.—L.H.F.

HENNY, C. J., AND W. T. VAN VELZEN. 1972. Migration patterns and wintering localities of American Ospreys. J. Wildl. Mgmt. 36: 1133–1141.—*Pandion haliaetus carolinensis* banded in the Middle Atlantic States and in New England apparently migrate on a broad front to their wintering grounds in the West Indies and South America. One-year-old Ospreys do not return to the United States. From 28 to 55% of the 2-year-olds return to their natal areas but are nonbreeding and represent 5 to 10% of the summer population.—L.H.F.

ISENMANN, P. 1973. Données sur les déplacements erratiques de Goélands argentés à pieds jaunes (*Larus argentatus michahellis*) nés en Méditerranée. Oiseau 43: 187–195.—Discusses recoveries of Yellow-legged Herring Gulls banded as chicks in the western Mediterranean in Yugoslavia, Spain, France, and Tunisia. (English summary.)—A.C.

KENNEDY, D., AND G. ARTHUR. 1974. Subflocks in Canada Geese of the Mississippi Valley population. Wildl. Soc. Bull. 2: 8–12.—About one-third of the wintering population of *Branta canadensis* migrate into southern Illinois refuges in October and early November. Other population segments remain in Wisconsin until severe weather forces their exodus primarily to Horseshoe Lake and Union County state refuges. Although most of the early migrating birds winter on Crab Orchard Natl. Wildl. Refuge, small subflocks of the early migrants are associated with each concentration point.—L.H.F.

LARMUTH, J. 1973. Migration of *Motacilla alba alba*. Bull. Brit. Ornithol. 93: 97–98.—White Wagtails were seen at night flying low over the water off the Egyptian coast. Many were lost in the waves.—F.B.G.

SHARP, B. 1972. Eastward migration of Blue-winged Teal. J. Wildl. Mgmt. 36: 1273–1277.

MISCELLANEOUS

ARTHUR, G. C., AND D. D. KENNEDY. 1972. A permanent site waterfowl trap. J. Wildl. Mgmt. 36: 1257–1261.

BARRAT, A., B. DESPIN, J. L. MOUGIN, J. PRÉVOST, M. SEGONZAC, AND M. VAN BEVEREN. 1973. Note sur le baguage des oiseaux de l'archipel Crozet de 1968 à 1971. Oiseau 43: 32–50.—Banding results of 5577 birds of 26 species captured mainly on Possession island (46° 25′ S, 51° 45′ E) and East island (46° 25′ S, 52° 12′ E). (English summary.)—A.C.

BOAG, D. A., A. WATSON, AND R. PARR. 1973. Radio-marking versus back-tabbing Red Grouse. J. Wildl. Mgmt. 37: 410–412.—The effect of radio packages fitted to *Lagopus l. scoticus* was no different than when back-tabs were used.—L.H.F.

CLARKE, H. 1973. Fifteen years in a blind. Western Birds 4: 3–14.—Short discussion of technique of bird photography, accompanied by 10 photos of western North American birds.—L.C.B.

DAVENPORT, D. A., G. A. SHERWOOD, AND H. W. MURDY. 1973. A method to determine waterfowl shooting distances. Wildl. Soc. Bull. 1: 101–105.

EVANS, M., AND J. KEAR. 1972. A jacket for holding large birds for banding. J. Wildl. Mgmt. 36: 1265–1267.

FEGELY, T. 1974. The Purple Martin—insecticide on wings. Pennsylvania Game News 45 (5): 42–43.

FISCHER, C. A. 1974. A lift-net for capturing male Ruffed Grouse. J. Wildl. Mgmt. 38: 149–151.

FJETLAND, C. A. 1973. Long-term retention of plastic collars on Canada Geese. J. Wildl. Mgmt. 37: 176–178.—After 6 years, 31% of *Branta canadensis maxima* retained flexible plastic collars. Retention by females was higher.—L.H.F.

HAVE, M. R. 1973. Effects of migratory waterfowl on water quality at Montezuma National Wildlife Refuge, Seneca County, New York. J. Res. U.S. Geol. Surv. 1: 725–734.—Because of concern about effluent from wildlife refuges affecting shellfish harvest, quality of water entering and leaving the refuge was monitored from August 1971 to May 1972. Water leaving the refuge had lower bacterial counts, a lower specific conductivity, and a generally higher dissolved oxygen content than influent water. Relationships between bird populations on the refuge and bacterial counts were inconsistent. The refuge improved the quality of water flowing through the marsh. Discusses reasons for this effect.—W.D.C.

HENNY, C. J., AND J. L. LUDKE. 1974. An attempt to age Mallards using eye lens proteins. J. Wildl. Mgmt. 38: 138–141.—Insoluble protein content of eye lenses was an unsatisfactory technique to separate adult year classes of *Anas platyrhynchos*.—L.H.F.

JOHNSON, L. L. 1972. An improved capture technique for flightless young Goldeneyes. J. Wildl. Mgmt. 36: 1277–1279.—An entanglement net was an effective means of capturing ducklings.—L.H.F.

KELSALL, J. P., AND J. R. CALAPRICE. 1972. Chemical content of waterfowl plumage as a potential diagnostic tool. J. Wildl. Mgmt. 36: 1088–1097.—Primary feathers of captive *Anas platyrhynchos*, *A. rubripes*, and *Aythya affinis* were analyzed for 11 chemical elements. Discriminant functional analysis showed zinc, iron, calcium, potassium, phosphorus, and copper as significant variables in separating birds by species and sex. Differences among species were highly significant. Three populations of male Mallards were chemically distinct and separable.—L.H.F.

LEWIS, J. C., AND J. A. MORRISON. 1973. Efficiency of traps and baits for capturing Mourning Doves. Wildl. Soc. Bull. 1: 131–138.

NESBITT, W. H. 1972. A modified cock-and-hen Bobwhite trap. J. Wildl. Mgmt. 36: 1304–1305.

OLROG, C. C. 1973. Elanillado de aves en la Argentina, 1961–1972. Octavo informe. Neotropical 19: 69–72.—Chiefly a report on Argentine bird banding in 1971–72, and on the more interesting recoveries from June 1970 through May 1972. (English summary.)—E.E.

STICKLEY, A. R., JR., R. T. MITCHELL, R. G. HEATH, C. R. INGRAM, AND E. L. BRADLEY, JR. 1972. A method for appraising the bird repellency of 4-aminopyridine. J. Wildl. Mgmt. 36: 1313–1316.

VARNEY, J. R., AND D. H. ELLIS. 1974. Telemetering egg for use in incubation and nesting studies. J. Wildl. Mgmt. 38: 142–148.

WILLIAMS, L. E., JR., AND R. W. PHILLIPS. 1972. Tests of oral anesthetics to capture Mourning Doves and Bobwhites. J. Wildl. Mgmt. 36: 968–971.

PESTICIDES AND POLLUTION

RAPPE, A. 1973. Influence de la pollution par le mercure sur les populations d'oiseaux. Oiseau 43: 196–204.—Reports many cases of Hg in birds. Birds should be considered as biological indicators, being at the same trophic level as man.—A.C.

SNYDER, N., AND H. SNYDER. 1974. Can the Cooper's Hawk survive? Natl. Geogr. 145: 432–442.—Reports on brooding and feeding behavior of male Cooper's Hawk (*Accipiter cooperii*) in rearing adopted chicks. Evidence obtained during studies of DDE concentration levels in eggs indicates that pollutants may produce abnormal reproductive behavior among Southwest populations. Also comments on destruction of hawks by hunters and robbing of nests by falconers. Includes photographs.—J.T.D.

SWITZER, B., V. LEWIN, AND F. H. WOLFE. 1973. DDE and reproductive success in some Alberta Common Terns. Canadian J. Zool. 51: 1081–1086.—Egg DDE levels correlated inversely with shell weight and thickness, but cracked or broken eggs accounted for only 13.8% of eggs that failed to hatch.—R.M.E.

PHYSIOLOGY

ALEKSIUK, M. 1973. Temperature-dependent enzyme kinetics during avian ontogeny: malate dehydrogenase in the Common Crow (*Corvus brachyrhynchos*) and the Pintail (*Anas acuta*). Canadian J. Zool. 51: 557–565.—Q_{10} values of about 1.0 between 30–40° C indicated an adaptive stabilization of reaction rates to fluctuating body temperatures.—R.M.E.

GEORGE, J. C., T. M. JOHN, E. T. MORAN, JR., P. R. SWEENY, R. G. BROWN, AND D. W. STANLEY. 1973. Selenium deficiency with the duck: changes in plasma free fatty acid level from hatching to onset of gross pathology Canadian J. Zool. 51: 383–386.—By 25 days of age, white Pekins given a selenium-free diet had lower plasma FFA than controls.—R.M.E.

MCEWAN, E. H., AND A. F. C. KOELINK. 1973. The heat production of oiled Mallards and scaup. Canadian J. Zool. 51: 27–31.—Crude oil on feathers doubled heat loss and shifted the lower critical temperature from 12 to 25° C. Washing rehabilitated Mallards, but scaup plumage deteriorated irreversibly.—R.M.E.

THOMAS, V. G., AND E. D. BAILEY. 1973. Influence of date of egg production and diet on pheasant chick development. Canadian J. Zool. 51: 1149–1154.—Chick

weight and development were unaffected by maternal diet or laying date, but were significantly influenced by posthatch chick diet.—R.M.E.

WILSON, H. R., M. W. HOLLAND, JR., AND R. H. HARMS. 1972. Dietary calcium and phosphorus requirements for Bobwhite chicks. J. Wildl. Mgmt. 36: 965–968.

TAXONOMY AND PALEONTOLOGY

DICKERMAN, R. W. 1973. A review of the Boat-billed Heron *Cochlearius cochlearius*. Bull. Brit. Ornithol. Club 93: 111–114.—Recognizes five subspecies, including two new ones, with diagnosis and range of each.—F.B.G.

HARRISON, C. J. O. 1973. The humerus of *Ichthyornis* as a taxonomically isolating character. Bull. Brit. Ornithol. Club 93: 123–126.—Structure of deltoid crest and absence of bicipital crest indicate that *Ichthyornis* was an evolutionary blind end and not the ancestor of modern Charadriiformes.—F.B.G.

IRWIN, M. P. S. 1972. An approach to subspecies in ornithology. Rhodesian Sci. News 6: 340–341.—Popular discussion of usefulness and limits of studying subspecific variation.—R.B.P.

KAISER, C. E., AND J. C. GEORGE. 1973. Interrelationship amongst the avian orders Galliformes, Columbiformes, and Anseriformes as evinced by the fiber types in the pectoralis muscle. Canadian J. Zool. 51: 887–892.—Affinity was suggested by similarities in red and white fibers.—R.M.E.

KEITH, S. 1973. The voice of *Sarothrura insularis* with further notes on members of the genus. Bull. Brit. Ornithol. Club 93: 130–136.—Call of *S. insularis* is unique and unlike any voices of African species, suggesting removal of *insularis* from a superspecies with *affinis*. An unusual record of *S. elegans* from Lake Rudolf, Kenya may represent either a migrant or a local population adapted to unusual habitat.—F.B.G.

MEES, G. F. 1973. Once more: the identity and the authorship of *Treron griseicauda*. Bull. Brit. Ornithol. Club 93: 119–120.—The correct name of the subspecies of *Treron pompadora* on Java is *Treron pompadora griseicauda* Bonaparte 1854, despite previous discussions.—F.B.G.

MEES, G. F. 1973. *Contopus albogularis* (Berlioz) (Aves, Tyrannidae). Proc. Koninkl. Nederlandse Akad. Wetenschappen, Ser. C, 76: 465–475.—The White-throated Pewee, described in 1962 from a single French Guiana specimen, and later recorded from adjacent Amapá, Brazil, is locally common in Surinam on the low Brownsberg and Nassau Mountains (470–540 m). Discusses ecology, plumages, soft-part colors and weights, voice, nest, food, parasites (with good photographs and spectrograms). Published measurements of type were erroneous; measurement of 10 Surinam adults: wing = 63–70, tail = 51–54.5. Its closest ally is *C. nigrescens*.—E.E.

RISING, J. D. 1973. Morphological variation and status of the orioles, *Icterus* [*g.*] *galbula*, *I.* [*galbula*] *bullockii*, and *I. abeillei*, in the northern great plains and in Durango, Mexico. Canadian J. Zool. 51: 1267–1273.—Phenetically intermediate individuals were rare in the northern plains. The range of the Baltimore Oriole is probably extending southward at the expense of Bullock's Oriole.—R.M.E.

RUSCHI, A. 1973. Uma nova espécie de *Threnetes* (Aves, Trochilidae). *Threnetes grzimeki*, sp. n. Bol. Mus. Biol. "Prof. Mello Leitão," Ser. Zool., No. 37: 1–6.—A new hummingbird species from extreme northern Espirito Santo (Conceição da Barra), southeastern Brazil; the only member of its genus recorded in Brazil outside of Amazonia. The four examples known were all from the type locality, but

the species presumably occurs in adjacent southern Bahia, in mature forest. Describes habitat, nesting, song and sunbathing. Includes a list of all hummingbirds known from the state of Espirito Santo. (In Portuguese; short English summary.) —E.E.

SIEGFRIED, W. R., AND P. G. H. FROST. 1973. Systematic notes on the small African Buteos. Ardea 61: 123–127.—*Buteo oreophilus* is considered a separate species and no longer regarded to be conspecific with *Buteo buteo*.—N.A.M.V.

TOMLINSON, R. E., AND R. L. TODD. 1973. Distribution of two western Clapper Rail races as determined by responses to taped calls. Condor 75: 177–183.

VAURIE, C. 1973. Individual variation in *Furnarius leucopus torridus* (Furnariidae, Aves). Amer. Mus. Novitates No. 2515.—In the upper Amazon Basin, dark, pale, and intermediate individuals of *F. leucopus* occur together. All of the birds belong to a single variable subspecies for which *F. l. torridus* is the correct name.— —K.C.P.

WINTERBOTTOM, J. M. 1973. The relationship of the avifauna of the southwest arid area of Africa. Zool. Africana 8: 83–90.—Several species are most closely related to Somali arid area birds, others are derived from nearby mesic areas, and others are of unknown history.—R.B.P.

WINTERBOTTOM, J. M. 1973. The antiquity of the African avifaunas. Ostrich 44: 139.—Analysis of endemics indicates equal differentiation or antiquity of forest and nonforest fauna. Excluding water birds, four endemic bird families are forest and four are nonforest, and 70 endemic genera are forest and 76 are nonforest. Mammals similarly show no greater differentiation in the forest.—R.B.P.

WINTERBOTTOM, J. M. 1973. Systematic notes on birds of the Cape Province. 32. Three species-pairs. Ostrich 44: 144.—*Promerops* is undoubtedly two good species. *Chaetops aurantius* is specifically distinct from *C. frenatus*. *Serinus totta* and *S. symondsi* look different and so are distinct species. The last two species-pairs are allopatric.—R.B.P.

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