PERIODICAL LITERATURE

EDITED BY GLEN E. WOOLFENDEN

A Memorial Issue

Dickinson, E. C., Ed. 1970. Nat. Hist. Bull. Siam Soc. (Deignan Memorial Issue), 23 (3): 227–444.—Contains 10 research papers, all of which are abstracted below, one editorial, an obituary by P. Rochanapurananda, a reprinting of the memorial written by Friedmann (Auk, 87: 15–19, 1970), and an annotated list of Deignan's publications compiled by E. C. Dickinson.—G.E.W.

Anatomy and Embryology

Brackbill, H. 1969. White-breasted Nuthatch bill abnormality corrected by wear. Bird-Banding, 40: 145.

Leberman, R. C. 1970. Pattern and timing of skull pneumatization in the Ruby-crowned Kinglet. Bird-Banding, 41: 121–124.—Examination of over 1,000 living *Regulus calendula* indicates two variable but basic patterns of pneumatization exist. Type A develops two unpneumatized "windows," one on each side of the midline, whereas type B has a single midline "window" as the last evidence of immaturity. The skulls of a few individuals may be completely ossified by the end of September. —G.E.W.

Olson, S. L. 1970. Specializations of some carotenoid-bearing feathers. Condor, 72: 424–430.

Sealy, S. G. 1970. Egg teeth and hatching methods in some alcids. Wilson Bull., 82: 289–293.

Thomson, D. S. 1969. Histogenesis of the proventricular submucosal gland of the chick as revealed by light and electron microscopy. Ohio J. Sci., 69: 74–84.—A detailed description with figures of the development of the submucosal tubuloalveolar glands.—H.C.S.

Behavior

Alcock, J. 1970. The origin of tool-using by Egyptian Vultures *Neophron percnopterus*. Ibis, 112: 542.—Explains stone throwing as a redirected egg-throwing behavior. As vultures feed together and watch each other approach food, learning may explain why only some populations exhibit the behavior.—R.W.S.

Boswall, J. 1970. The association of the Northern Carmine Bee-eater *Merops m. nubicus* with mammals, birds or motor vehicles in Ethiopia. Bull. Brit. Ornithol. Club, 90: 92–96.—This bee-eater regularly perches on animals and catches insects flushed by its "perch." Similarly it often follows humans and motor vehicles to catch disturbed insects.—F.B.G.

Brackbill, H. 1969. Red-bellied Woodpecker taking bird's eggs. Bird-Banding, 40: 323–324.—A *Centurus carolinus* excavated a new entrance below an old woodpecker hole that had been frequented by House Sparrows, pulled out dead grass, and then flew away with two eggs, carrying one each trip in his bill. The eggs were presumed to be an incomplete clutch of the House Sparrows.—C.F.S.

Brackbill, H. 1970. A polygynous House Wren. Bird-Banding, 41: 118–121.—Behavioral observations of a male *Troglodytes aedon* with two mates, both of which produced two clutches.—G.E.W.

Burtt, H. E., and M. L. Giltz. 1969. A statistical analysis of blackbird aggressiveness. Ohio J. Sci., 69: 58–62.—A scale for rating aggressiveness was developed for

birds held in the hand and threatened in standard fashion. Grackles and cowbirds were more aggressive than Red-winged Blackbirds and Starlings. Mourning Doves gave no indication of aggressiveness.—H.C.S.

BURTT, H. E., AND M. L. GILTZ. 1969. Measurement of complacency in blackbirds. Ohio J. Sci., 69: 109–114.—Distribution curves and mean scores of birds placed in individual cages indicate that cowbirds are the most complacent and Starlings the least, with grackles and Red-wings intermediate.—H.C.S.

CLARK, G. A. 1970. Avian bill-wiping. Wilson Bull., 82: 279–288.

COLLIAS, N. E., AND E. C. COLLIAS. 1970. The behaviour of the West African Village Weaverbird. Ibis, 112: 457–480.—Description of the breeding season, breeding behavior, maintenance behavior, and response to predators of *Ploceus cucullatus cucullatus* in Senegal, with notes on a captive breeding population in Los Angeles, California. Behavior of other Ploceinae is compared.—R.W.S.

DAVIS, F. W. 1970. Territorial conflict in the American Woodcock. Wilson Bull., 82: 327–328.

DITTUS, W. P. J., AND R. E. LEMON. 1970. Auditory feedback in the singing of Cardinals. Ibis, 112: 544–548.—In *Richmondena cardinalis* deafening prevents storage of memory information and also may block access to information already stored. —R.W.S.

DOW, D. D. 1970. Communal behaviour of nesting Noisy Miners. Emu, 70: 131–134.—*Myzantha melanocephala* frequently have helpers at the nest. Up to 10 individuals may help at a single nest. Feeding visits to the nest totaled a remarkable 30 to 50 per hour.—L.L.S.

FRANKE, H. 1969. Die Paarungsbalz des Schwarzhalstauchers. J. Ornithol., 110: 286–290.—Describes pairing and mating behavior in the Black-necked Grebe *Podiceps nigricollis*. (English summary.)—H.C.M.

GIBB, J. A. 1970. The turning down of marked eggs by Great Tits. Bird-Banding, 41: 40–41.

GOBEIL, R. E. 1970. Vocalizations of the Savannah Sparrow. Bird-Banding, 41: 18–21.—Describes two songs and four call notes.—B.A.H.

HAMMER, D. A. 1970. Trumpeter Swan carrying young. Wilson Bull., 82: 324–325.

HOFFMEYER, I. 1969. Feather pecking in pheasants—an ethological approach to the problem. Danish Rev. Game Biol., 6: 1–36.—Describes the various forms of pecking behavior in pheasants. Feather pecking, in which a bird pecks the feathers of a penmate or its own feathers, differs from aggressive pecking and resembles food pecking. Although feather pecking increases with crowding, no correlation exists between dominance pecking within a hierarchy and feather pecking. The increase in feather pecking appears to be related to availability of birds rather than stress. Incidence of feather pecking is reduced by providing food that requires more time to eat (pellets vs. mash) and by providing greens, particularly if the birds have to detach the leaves as in natural feeding conditions. Feather pecking may be released initially by visual stimuli with reinforcement by tactile and taste stimuli resulting in habit formation. Experimental results are presented in numerous tables with both English and Danish captions.—C.F.S.

HOLCOMB, L. C. 1969. Egg turning behavior of birds in response to color-marked eggs. Bird-Banding, 40: 105–113.—Eggs of 28 species of passerines were brightly numbered. The incubating parent had a tendency to turn the egg so that the foreign color was not visible.—F.E.L.

KNEUTGEN, J. 1969. "Musikalische" Formen im Gesang der Schamadrossel (*Kittacincla macroura* Gm.) und ihre Funktionen. J. Ornithol., 110: 245–285.—A detailed

study of vocal repertoire, song structure, function, and ontogeny of song in the remarkable Shama Thrush. A lengthy discussion considers similarities between bird song and music and biological rationales for the similarities (English summary.)—H.C.M.

KOCH, R., A. E. COURCHESNE, AND C. T. COLLINS. 1970. Sexual differences in foraging behavior of White-headed Woodpeckers. Bull. S. California Acad. Sci., 69: 60–64.—In the San Gabriel Mountains, Los Angeles County, woodpeckers feed almost exclusively on Coulter Pines. Males forage the entire tree but concentrate on upper branches and cones; females concentrate on the lower main trunk with some attention to lowermost branches.—H.H.

MACLEAN, S. F., JR. 1970. Social stimulation modifies the feeding behavior of the American Robin. Condor, 72: 499–500.

MARSHALL, A. J. 1970. Bower-building and decorating by the Regent Bowerbird in captivity. Emu, 70: 28–29.—This paper, found in the late Prof. Marshall's effects, demonstrates that *Sericulus chrysocephalus* can build a small, but fully adorned, complex bower "not in the least degree rudimentary" as stated in some of the literature.—L.L.S.

MARTIN, S. G. 1970. The agonistic behavior of Varied Thrushes (*Ixoreus naevius*) in winter assemblages. Condor, 72: 452–459.

MICHAEL, E. D. 1970. Wing flashing in a Brown Thrasher and Catbird. Wilson Bull., 82: 330–331.

RADABAUGH, B. E. 1970. Food passing by nesting Marsh Hawks (*Circus cyaneus*). Bird-Banding, 41: 41.—A flying male dropped a *Citellus*-sized mammal to a flying, screaming female, 13 May 1966, in Michigan. The next day, in the same swamp, a female was flushed from a nest containing four eggs.—F.E.L.

RICHARDS, G. L. 1970. American Kestrel, *Falco sparverius*, exhibits relic nest building behavior. Condor, 72: 476.

SCHAEFFER, F. S. 1970. Observation of "billing" in courtship behavior of Tree Swallow. Bird-Banding, 41: 242.

SMITH, W. J. 1970. Courtship and territorial display in the Vermilion Flycatcher, *Pyrocephalus rubinus*. Condor, 72: 488–491.

SNOW, B. K. 1970. A field study of the Bearded Bellbird in Trinidad. Ibis, 112: 299–329.—The preferred habitat and territory characteristics of *Procnias averano* are correlated with sequences of aggressive and courtship display. Nest building, incubation, and brooding behavior are described. Enhanced chick survival is attributed to infrequent visits by the female and very brief periods of brooding. Analysis of the food of this wholly frugivorous species indicates that fruits eaten are much higher in protein and lipid content than temperate fruits. Analysis of song and its ontogeny indicates that the Trinidad populations have lost a call still present in Venezuelan birds. Adaptations in nest type and clutch size, and influence of predation on clutch size are discussed.—M.S.F.

WATSON, J. R. 1970. Dominance-subordination in caged groups of House Sparrows. Wilson Bull., 82: 268–278.

DISEASES AND PARASITES

HOUSTON, C. S., AND L. TRYPHONAS. 1969. Avian tuberculosis in a Swainson's Thrush. Bird-Banding, 40: 146–147.

KHAN, R. A., AND A. M. FALLIS. 1970. Relapses in birds infected with species of *Leucocytozoon*. Canadian J. Zool., 48: 451–455.—During a study of schizogony in the life cycles of *L. dubreuli, L. danilewskyi,* and *L. fringillinarum* relapses were followed in Robins, Saw-whet Owls, White-throated Sparrows, and juncos.—H.W.K.

KIRMSE, P. 1969. Cnemidocoptiasis (scaly-leg) in a Buff-throated Saltator (*Saltator maximus*) from Panama. Bird-Banding, 40: 51–52.

POST, W., AND F. ENDERS. 1970. The occurrence of mallophaga on two bird species occupying the same habitat. Ibis, 112: 539–540.—*Ammospiza maritima* is significantly more infested than *A. caudacuta*, and male *maritima* more so than females. Sharp-tailed Sparrows undergo two molts per year while Seasides have only a single, postnuptial molt. Number and frequency of mallophaga decreased when molt began. —R.W.S.

THRELFALL, W. 1970. A preliminary check list of the helminth parasites of the Common Snipe, *Capella gallinago* (Linnaeus). Amer. Midl. Naturalist, 84: 13–19. —Lists helminths of the Common Snipe; a bibliography is included, as well as an indication of where, when, and by whom the parasites were found.—G.D.S.

DISTRIBUTION AND ANNOTATED LISTS

ADAMS, B. 1970. First Harris's Sparrow banded in New Jersey. Bird-Banding, 41: 133.

AUSTIN, G. T. 1970. The occurrence and status of certain anatids in southern Nevada. Condor, 72: 474.

BELL, H. L. 1969. Field notes on the birds of the Ok Tedi River drainage, New Guinea. Emu, 69: 193–211.—Annotated list with first records of *Motacilla flava* and *Fulica atra* from Australian New Guinea.—L.L.S.

BELL, H. L. 1970. Field notes on birds of the Nomad River Sub-district, Papua. Emu, 70: 97–104.—Annotated list including first New Guinea record of *Hylochelidon ariel* and range extension of *Paradisaea apoda*.—L.L.S.

BUCKLEY, P. A., AND F. G. BUCKLEY. 1970. Notes on the distribution of some Puerto Rican birds and on the courtship behavior of White-tailed Tropicbirds. Condor, 72: 483–486.

CAMPBELL, R. W. 1970. Occurrence and nesting of Black Terns in southwestern British Columbia. Condor, 72: 500.

CLARK, C. F., AND J. P. SIPE. 1970. Birds of the Lake St. Marys area. Ohio Dept. Nat. Res., Div. Wildl., Publ. 350.

CRAIG, A. M. 1970. Two California records of Grace's Warbler. California Birds, 1: 77–78.

CROIZAT, L. 1970. A selection of notes on the broad trends of dispersal mostly of Old World avifauna. Nat. Hist. Bull. Siam Soc., 23: 255–324.—Six topics are discussed: dispersal of *Otus* and *Corvus*, massing and dispersal of Fringillidae, Estrildidae, and Ploceidae, transatlantic dispersal, dispersal of emerald cuckoos, the taxonomic position of a woodpecker, and comments on *Zosterops*, particularly the African forms.—G.E.W.

DELACOUR, J. 1970. The contribution of Gilbert Tirant to Indochinese ornithology. Nat. Hist. Bull. Siam Soc., 23: 325–329.—Among the 1,000 plus specimens Tirant collected in eastern and southern Indochina, 1875–1877, are many species now rare or extirpated from the region. With few exceptions Tirant's records appear valid. —G.E.W.

DICKINSON, E. C. 1970. Notes upon a collection of birds from Indochina. Ibis, 112: 481–487.—Rediscovery of 394 skins from the collection of Monsieur A. David-Beaulieu from Laos. *Acrocephalus concinnens* is reported for the first time from Indochina. List of type specimens appended.—R.W.S.

EASTERLA, D. A., AND W. GEORGE. 1970. Marbled Godwit and Yellow-throated Warbler in Colombia, South America. Condor, 72: 473.

ERARD, C. 1970. Short notes on the birds of Fezzan and Tripolitania. Bull. Brit. Ornithol. Club, 90: 107–111.—Distributional and behavioral notes on breeding species.—F.B.G.

FRIEDMANN, H., AND J. G. WILLIAMS. 1970. The birds of the Kalinzu Forest, southwestern Ankole, Uganda. Contrib. Sci., Los Angeles County Mus., No. 195.—Annotated list of 121 species of birds collected 27 October to 27 November 1969 in an area previously unexplored by zoologists, and fast disappearing as a natural environment for sylvan species.—H.H.

FRIEDMANN, H., AND J. G. WILLIAMS. 1970. Additions to the known avifauna of the Bugoma, Kibale, and Impenetrable Forests, West Uganda. Contrib. Sci., Los Angeles County Mus., No. 198.—Zoological surveys during 1966–1970 added 38 species to the known avifaunas of Bugoma Forest, 91 to Kibale Forest, and 19 to Impenetrable Forest.—H.H.

GILL, H. B. 1970. Birds of Innisfail and hinterland. Emu, 70: 105–116.—Reports 298 native and 6 introduced species in an 8,000-sq km area of North Queensland, Australia.—L.L.S.

HANCOCK, D. 1970. New Rhinoceros Auklet colony for British Columbia. Condor, 72: 491.

HOY, G. 1969. *Buteo albigula* Philippi erstmals in Argentinien gefunden. J. Ornithol., 110: 314–317.—First record for Argentina occurred in the forested foothills of the Andes.—H.C.M.

MCCASKIE, G. 1970. The American Redstart in California. California Birds, 1: 41–46.—Summarizes all available records; most are from September–October, but a small peak also occurs in late spring.—B.A.H.

MCCASKIE, G. 1970. Blue Jay in California. California Birds, 1: 81–83.—Includes a discussion of additional records of *Cyanocitta cristata* west of their normal range.—B.A.H.

MICHAEL, E. D. 1970. The Evening Grosbeak in eastern Texas. Bird-Banding, 41: 40.—Food and numbers of *Hesperiphona vespertina* during November–May, 1968–69, at Nacogdoches, Texas.—F.E.L.

MITCHELL, H. D., AND R. F. ANDRLE. 1970. Birds of the Niagara Frontier Region supplement. Bull. Buffalo Soc. Nat. Sci., 22, Suppl.: 1–10.—Summary of significant records and trends plus annotated list of 11 new species and subspecies added since 1964 in western New York and the Niagara peninsula of Ontario.—R.F.A.

MORTON, E. S. 1970. Chuck-will's-widow in Connecticut. Wilson Bull., 82: 329.

NILES, D. M. 1970. A record of clutch size and breeding in New Mexico for the Bronzed Cowbird. Condor, 72: 500–501.

OGDEN, J. C., AND E. J. FISK. 1970. Traill's Flycatcher, a transient in peninsular Florida. Bird-Banding, 41: 40.

OWRE, O. T. 1967. The Reef Heron, *Egretta schistacea* Ehrenb., in Interior East Africa. J. E. African Nat. Hist. Soc. and Nat. Mus., 26, No. 2 (paged separately) (114): 61–63.—Summarizes records for this species away from the coast.—M.A.T.

ROWLEY, I. C. R. 1969. First record of the Australian Raven *Corvus coronoides* in the Northern Territory. Emu, 69: 183–184.

SMART, J. B. 1965. A breeding record for the Sooty Tern in Kenya. J. E. African Nat. Hist. Soc. and Nat. Mus., 25: 69–70.—Ca. 5,000 pairs found breeding on the Tenewe Islands, coastal Kenya.—M.A.T.

SOIKKELI, M. 1970. First record of the Fieldfare on American continent. Condor, 72: 480.

SUFFEL, G. S. 1970. An Olivaceous Flycatcher in California. California Birds, 1: 79–80.

SVENSSON, L. 1970. [First record for Sweden of *Luscinia megarhynchos hafizi* (Sev.).] Vår Fågelvärld, 29: 67–71.—Immature bird collected at Ottenby 18 October 1964 is the first known European occurrence. (In Swedish; English summary.)—L.d.K.L.

TENNENT, J. R. M. 1965. Notes on the birds of Kakamega Forest. J. E. African Nat. Hist. Soc. and Nat. Mus., 25: 95–100.—Kakamega is of interest as the easternmost forest of West African affinity, the only one in Kenya.—M.A.T.

WON, P. 1970. Noteworthy bird records from Korea. Condor, 72: 479.

ECOLOGY AND POPULATION

AHLÉN, I. 1970. [The breeding population in Scania, southern Sweden, of the Rednecked Grebe (*Podiceps grisegena*).] Vår Fågelvärld, 29: 57–59.—A decline of almost 50 per cent is due to a decrease in the localities with rich, shallow, water vegetation and open environment. (In Swedish; English summary.)—L.d.K.L.

ANDERSON, B. W., AND D. W. WARNER. 1970. Evidence from salt gland analysis for convergence of migratory routes and possible geographic variation in Lesser Scaup. Bird-Banding, 40: 198–207.—Based on weights of salt glands from 1,142 *Aythya affinis,* the authors conclude that these Minnesota spring migrant ducks were from at least two different winter localities, one salt water and one fresh water. Slightly smaller sternums and longer appendages correlated with large salt glands.—G.E.W.

ANDERSON, S. H. 1970. The avifaunal composition of Oregon white oak stands. Condor, 72: 417–423.

AUSTIN, G. T. 1970. Breeding birds of desert riparian habitat in southern Nevada. Condor, 72: 431–436.

BRENNER, F. J. 1968. Energy flow in two breeding populations of Redwinged Blackbirds. Amer. Midl. Naturalist, 79: 289–310.—Energy requirements of nestlings and adults in two Pennsylvania breeding colonies of *Agelaius phoeniceus* were studied from 1961 to 1964. Population size appeared to correspond to the available energy supply, and periods of breeding activity correlated with abundant energy supply.—G.D.S.

CODY, M. L. 1970. Chilean bird distribution. Ecology, 51: 455–463.—Results of bird censuses from 13 Chilean habitats. Information-theoretic measures of bird species diversity, foliage height or habitat diversity, and bird species turnover between habitats were calculated using the Shannon-Wiener formula. Special attention was given to the distribution and ecology of *Muscisaxicola* and *Fulica*. Chilean birds' wide habitat tolerance within narrow geographic areas is attributed to a slow developmental rate of this bird fauna.—H.W.K.

DENNIS, J. V. 1969. The Yellow-shafted Flicker (*Colaptes auratus*) on Nantucket Island, Massachusetts. Bird-Banding, 40: 290–308.—An 8-year population study of flickers between 1959 and 1968 discusses factors affecting nest site selection and nesting success. Competition with Starlings for nest sites made flickers move from exposed sites into a few heavily wooded areas, but severe weather, rather than Starling competition, appears to be the chief factor limiting population size. The present abundance of nest sites is probably responsible for the large flicker population on Nantucket.—C.F.S.

DOW, D. D. 1970. Distribution and dispersal of the Cardinal, *Richmondena cardinalis,* in relation to vegetational cover and river systems. Amer. Midl. Naturalist, 84: 198–207.—Cardinals were studied at four locations of different population densities. Woody cover was correlated with density. A strong association with

river systems noted in peripheral populations was not found in the center of the range. The northern limit of the range in Ontario is related to snowfall distribution peculiar to the region.—G.D.S.

EBERHARDT, L. L. 1970. Correlation, regression, and density dependence. Ecology, 51: 306–310.—Several examples illustrate the dangers of inferring the existence of density-dependent population regulation on the basis of correlation analyses. (From author's abstract.)—H.W.K.

EMLEN, J. T. 1970. Habitat selection by birds following a forest fire. Ecology, 51: 343–345.—Counts of birds in a recently burned slash pine stand in southern Florida were essentially no different than counts in an immediately adjacent unburned stand.—H.W.K.

ERICKSON, J. E. 1970. Banding studies of wintering Baltimore Orioles in North Carolina. Bird-Banding, 40: 181–198.—During three winters 394 *Icterus galbula* were color-banded at feeding stations in North Carolina, of which 99 returned in subsequent winters. The sex ratio of returning orioles was 1:1. Flocks circulated between several feeding stations in fixed patterns. Learning associated with the warm winters of the early 1950s may account for this recent development of a population wintering in temperate United States.—G.E.W.

FRETWELL, S. 1969. Dominance behavior and winter habitat distribution in juncos (*Junco hyemalis*). Bird-Banding, 40: 1–25.—A comparison of flocked juncos at a feeding station in a field with unflocked juncos at a woodland backyard feeder in Raleigh, North Carolina. In flocked juncos adrenal weight and disappearance rate were inversely related to dominance status. In flocked, but not in unflocked birds, fat reserves are positively related to dominance. These and other results support the hypothesis that dominance behavior regulates food utilization, distribution, and mortality.—F.E.L.

GYLLIN, R., AND B. THYSELIUS. 1970. [The Black-headed Gull (*Larus ridibundus*) in Närke Province, central Sweden, 1967.] Vår Fågelvärld, 29: 72–76.—Ca. 15,000 pairs found in 21 colonies with floating masses of last-year's reeds favored as nest bases and proximity to water a prerequisite. (In Swedish; English summary.)—L.d.K.L.

HARRIS, M. P. 1970. Differences in the diet of British auks. Ibis, 112: 540–541.—When feeding on the same fish species in the same area, *Fratercula arctica, Alca torda*, and *Uria aalge* take different sized prey.—R.W.S.

HENNY, C. J. 1969. Geographical variation in mortality rates and production requirements of the Barn Owl (*Tyto alba* ssp.). Bird-Banding, 40: 277–290.—Estimates of mortality rates based on banding recoveries for populations of *Tyto alba pratincola* from southern and northeastern United States and a population of *T. a. guttata* from Switzerland showed a correlation between overall annual mortality and latitude (34.3 per cent in southern U. S. and 55.8 per cent in Switzerland). Rates of production also were lower in southern U. S. Estimates made for two time periods, before eggshell thinning was noted in other species (1928–1947) and post eggshell thinning (1948–1963), were similar. A high biotic potential allows this oscillatory species to recover quickly after a poor production year.—C.F.S.

HIRTH, D. H., A. E. HESTER, AND F. GREELEY. 1970. Dispersal and flocking of marked young Robins (*Turdus m. migratorius*) after fledging. Bird-Banding, 40: 208–215.—Observation of wing-tagged fledgling Robins indicates they leave the parental territory after about 3 weeks to congregate at nearby abundant food sources. Flock members range about ¼ mile from the main food source. A loafing site is associated with each feeding area.—G.E.W.

HÖGSTRÖM, S. 1970. [Horned Grebe (*Podiceps auritus*) on the Baltic island of Gotland.] Vår Fågelvärld, 29: 60–66.—An increase recorded since 1910. Association with colonies of Black-headed Gulls (*Larus ridibundus*) is due principally to habitat improved by the gull fertilization of water and soil. (In Swedish; English summary.) —L.d.K.L.

JAMES, F. C. 1970. Geographic size variation in birds and its relationship to climate. Ecology, 51: 365–390.—Statistical analysis of data on over 4,000 specimens of 12 species from a broad geographic area revealed a high degree of concordance among the geographic patterns of size variation in birds in the eastern and central United States. Size variation in the Downy Woodpecker and several other species is related more closely to the combined effects of temperature and humidity than to temperature alone. This hypothesis may partially account for several cases cited as exceptions to Bergmann's ecogeographic rule. Sections of a translation of Bergmann's 1874 paper are appended. This is an important and valuable contribution. —H.W.K.

JARVIS, M. J. F. 1970. The White-breasted Cormorant in South Africa. Ostrich, 41: 118–119.—The inland and marine populations of *Phalacrocorax lucidus* are ecologically separate; no birds ringed in one environment having been recovered in the other.—M.A.T.

KING, B. 1969. Swallow banding in Bangkok, Thailand. Bird-Banding, 40: 95–104. —Up to 150,000 wintering *Hirundo rustica* roost in the busiest commercial district of Bangkok. Of 73,276 birds banded 0.11 per cent were recovered outside Thailand, 47 in North Korea and 26 in southeastern Siberia.—F.E.L.

KLUG, S., AND J. BOSWALL. 1970. Observations from a water bird colony, Lake Tana, Ethiopia. Bull. Brit. Ornithol. Club, 90: 97–105.—A detailed description of vegetation and nesting waterbirds on Fasilidas Island, Lake Tana.—F.B.G.

LUTTICH, S., D. H. RUSCH, E. C. MESLOW, AND L. B. KEITH. 1970. Ecology of Red-tailed Hawk predation in Alberta. Ecology, 51: 190–203.—Examines effects of prey density and habitat type on Red-tail food habits, and assesses rates of predation on the snowshoe hare, Ruffed Grouse, and Richardson's ground squirrel. —H.W.K.

MCCLURE, H. E. 1970. Three notes on Thai birds. Nat. Hist. Bull. Siam Soc., 23: 332–343.—Remarks on roosting habits of three hornbills—*Buceros bicornis, Anthracoceros albirostris,* and especially *Rhyticeros undulatus*; seasonal fluctuations in two drongos—*Dicrurus adsimilis* and *D. hottentottus*; and sleeping habits of *Pycnonotus blanfordi*.—G.E.W.

MORSE, D. H. 1970. Ecological aspects of some mixed-species foraging flocks of birds. Ecol. Monogr., 40: 119–168.—Mixed species flocks composed of chickadees, titmice, woodpeckers, nuthatches, creepers, kinglets, and wood warblers were studied in several habitats in Louisiana, Maryland, and Maine. Discusses flock composition, roles of members, numbers of flocking and nonflocking species, hostile interactions, dominance hierarchies, individual spacing, home range, nature of foraging, competition, environmental factors, movement rates, and role of predation on flocking behavior.—H.W.K.

NILES, D. M., S. A. ROHWER, J. A. JACKSON, AND J. D. ROBINS. 1969. An observation of midwinter nocturnal movement and tower mortality of Tree Sparrows. Bird-Banding, 40: 322–323.—Substantiates the occurrence of occasional mass midwinter movements. The movement followed extensive snowfall. High fat values in the tower-killed birds suggest winter fat deposits may be needed occasionally for migrationlike movements as well as for cold acclimatization.—C.F.S.

ORR, Y. 1970. Temperature measurements at the nest of the Desert Lark (*Ammomanes deserti deserti*). Condor, 72: 476–478.

RECHER, H. F., AND F. J. ABBOTT. 1970. Some differences in use of habitat by White-eared and White-cheeked Honeyeaters. Emu, 70: 117–125.—*Meliphaga leucotis* and *Phylidonyris nigra* are distantly related and differ greatly in foraging habits, but occur in the same dry woodlands near Sydney, Australia. Foraging behavior was studied in a MacArthurian manner. The authors conclude "there are probably not enough data to reach a final decision on how importantly diversity of plant species, composition of plant species and foliage profile affect diversity of bird species and differences between habitats in the composition of the avifauna"!—L.L.S.

RICKLEFS, R. E. 1970. The estimation of a time function of ecological use. Ecology, 51: 508–513.—A general model is formulated relating the outcome of a series of events, such as the capture or escape of a prey item, to the probability time and outcome of each event. An appendix demonstrates application of the model and its derivation for predator hunting behavior and the nesting biology of birds. (From author's abstract.)—H.W.K.

ROBERTS, H. S., AND E. K. SAUL. ? Birds at Auckland International Airport—a statistical analysis. New Zealand Mathematics Mag., 5: 44–50.—Multiple regression technique is used to test correlation of physical factors with numbers of shorebirds in the airport vicinity.—S.C.W.

ROSS, G. 1970. [Notes from Falsterbo Bird Station 1965. Report No. 40.] Vår Fågelvärld, 29: 90–98.—Birds banded totaled 19,555. Among the species showing irruptive tendencies were *Parus caeruleus, Carduelis citrinella, C. flammea,* and *Bombycilla garrulus*. (In Swedish; English summary.)—L.d.K.L.

SIEGFRIED, W. R. 1970. Mortality and dispersal of ringed Cattle Egrets. Ostrich, 41: 122–135.—Annual mortality of juveniles is 43 per cent, and of adults 25 per cent. Dispersal following the breeding season is extensive. According to the author the movements of Cattle Egrets may not represent true migration, but his Figure 1 suggests the contrary to me.—M.A.T.

TAYLOR, R. H., B. D. BELL, AND P. R. WILSON. 1970. Royal Albatrosses, feral sheep and cattle on Campbell Island. New Zealand J. Sci., 13: 78–88.—A preliminary investigation of ecological effects of feral livestock on a subantarctic island was inconclusive. The sheep population tripled since 1961, and the Royal Albatross population doubled since 1958. No relationships between sheep and albatross populations were demonstrated, but additional research has been undertaken. The small population of feral cattle has been stable for 40 years.—B.A.H.

VAN TETS, G. F. 1969. Diurnal movement patterns of the Silver Gull, *Larus novaehollandiae* Stephens, at Sydney airport. CSIRO Wildl. Res., 14: 111–116.—Peak movements occurred at dawn and dusk between feeding and roosting areas. Movement patterns changed with changes in availability and location of food.—R.W.S.

VUILLEUMIER, F. 1970. Insular biogeography in continental regions. I. The northern Andes of South America. Amer. Naturalist, 104: 373–388.—Species diversity and endemism were studied in birds living in islands of páramo vegetation above the timber line. Measures of environmental diversity and isolation allow accurate prediction of species diversity and endemism. Compares these "islands" with oceanic islands.—G.D.S.

WOOLFENDEN, G. E., AND S. A. ROHWER. 1969. Breeding birds in a Florida suburb. Bull. Florida State Mus., vol. 13, no. 1, 83 pp.—Species composition, density, habitat preference, duration of nesting season, and productivity for the birds of suburban Pinellas Co., based on a 2-year study of plots in three types of residential habitat,

new, pine-dominated, and oak-dominated suburbs. Only 11 species breed in the three plots (100.5 acres total), with House Sparrow, Mourning Dove, Blue Jay, and Mockingbird comprising 90 per cent of the breeders. House Sparrows alone constitute 50 per cent of all breeding birds. In peripheral habitats 21 additional species breed that do not nest in the suburbs. Replacement of natural areas by suburbs produces a marked change in species composition and a threefold increase in density. Land clearing for establishment of suburbs results in almost complete destruction of the original habitat and elimination of the avifauna. In new suburbs populations increase to the original density (200 prs./100 acres) but with a marked change in species composition. As suburbs mature a few more species are added and densities increase to 500 and 600 prs./100 acres in oak- and pine-dominated mature suburbs, respectively.

Based on almost 900 nest records, breeding biology and nesting success are included for the more common breeders except the House Sparrow. A new method of measuring nesting success is presented in which a calculated number of hypothetical unfound failures is added to the sample of known nests to compensate for nests found after incubation or egg laying has begun. Particularly extensive data were accumulated for the Mourning Dove (625 nestings), in which nesting success was ca. 40 per cent in pine- and 20 per cent in oak-dominated suburbs.—C.F.S.

YOUNG, C. M. 1970. Territoriality in the Common Shelduck *Tadorna tadorna*. Ibis, 112: 330–335.—Study of a population of marked birds on the Ythan Estuary, Aberdeenshire, between December 1961 and August 1964 includes observations on territory establishment and relation to population regulation.—R.W.S.

EVOLUTION AND GENETICS

BANKS, R. C. 1970. Re-evaluation of two supposed hybrid birds. Wilson Bull., 82: 331–332.

BERLIOZ, J. 1970. Remarques sur les affinités des avifauna forestières en Asie et Afrique tropicales. Nat. Hist. Bull. Siam Soc., 23: 249–254.—Compared to the unique neotropical passerine fauna, those of the forests of the Oriental and Ethiopian regions have many strikingly specialized forms in common, such as Timaliidae, Campephagidae, *Terpsiphone*, Pittidae, and now *Pseudochelidon* based on a recently discovered Oriental species.—G.E.W.

BROWER, L. P., F. H. POUGH, AND H. R. MECK. 1970. Theoretical investigations of automimicry, 1. Single trial learning. Proc. Natl. Acad. Sci., 66: 1059–1066.—The theory of automimicry is explored mathematically on the assumption that predators can learn to avoid noxious prey by sight for some finite period after a single noxious experience. Automimetic advantage is an inevitable consequence of the evolution of an unpalatability dimorphism. An established automimetic situation is analogous to an established perfect Batesian mimicry situation, although the evolutionary bases of the two phenomena are different. In both situations, the mimetic advantage depends upon the proportion of unpalatable prey, the memory span of the predators, and the abundance of the prey relative to the predators. Automimetic advantage is maximal when the prey are neither too common nor too rare. Remarkably low proportions of unpalatable prey can confer very substantial immunity to the population. A surprising prediction of the model is that the evolution of unpalatability will not occur in rare prey species unless they first become Batesian mimics. This in turn could lead to the evolution of mimicry complexes containing many species forming a whole spectrum of unpalatability. (Authors' abstract.)

COPPINGER, R. P. 1970. The effect of experience and novelty on avian feeding be-

havior with reference to the evolution of warning coloration in butterflies. 2. Reactions of naive birds to novel insects. Amer. Naturalist, 104: 323–335.—Experiments with Blue Jays *Cyanocitta cristata*, Common Grackles *Quiscalus quiscula*, and Red-winged Blackbirds *Agelaius phoeniceus* confirm Coppinger's previous findings, namely that novel stimuli often fail to elicit an attack response from avian predators. Hand-raised birds avoided novel insects in a way indicating the response was not learned or innate, suggesting a relation between the amount of stimulus change and the animal's previous experience, also that no association with noxiousness is necessary for conspicuous coloration to be of selective advantage.—G.D.S.

CROSBY, J. L. 1970. The evolution of genetic continuity: computer models of the selection of barriers to interbreeding between subspecies. Heredity, 25: 253–297.—An important, computer-simulation article which clearly demonstrates the rapidity with which reinforcement of isolating mechanisms can occur when hybrids are inviable in a zone of contact and hybridization. Genes responsible for the reinforcement may spread from the overlap zone into the parental populations under some conditions.—L.L.S.

DAVIES, S. J. J. F. 1970. Patterns of inheritance in the bowing display and associated behaviour of some hybrid *Streptopelia* doves. Behaviour, 36: 187–214.—Compares, with photographs, bowing in captive Collared, Barbary, Turtle, Senegal, and Necklace Doves and various hybrids and backcrosses of these species. Males usually give bowing displays only when close to another dove. The form and frequency of bowing and the timing of the bowing cycle as a whole are species specific, with hybrids also displaying a characteristic form. Patterns of inheritance for these behavioral characters appear to be the same as for morphological characters, with the hybrid sometimes intermediate between the parents, sometimes approximating one parent, and sometimes more exaggerated than either parent. The frequency of giving "kah" calls also may be a useful character for studying patterns of inheritance.—C.F.S.

FISK, E. J. 1970. Hybrid warbler collected in south Florida. Bird-Banding, 41: 131–132.—A unique *Vermivora chrysoptera* × *pinus*, now a specimen in the AMNH. —G.E.W.

GILL, F. B. 1970. Hybridization in Norfolk Island White-eyes (*Zosterops*). Condor, 72:: 481–482.

GORSKI, L. C. 1970. Banding the two songforms of Traill's Flycatcher. Bird-Banding, 41: 204–206.—Forty-eight color-banded adults in an area of sympatry never interbred between songforms.—S.C.W.

HARRIS, M. P. 1970. Abnormal migration and hybridization of *Larus argentatus* and *L. fuscus* after interspecies fostering experiments. Ibis, 112: 488–498.—An intriguing study on Skomer and Skokholm Islands, Pembrokeshire. Cross-fostered *argentatus* migrated, but not so far as control *fuscus*. Cross-fostered *fuscus* also migrated, indicating that the cross-fostered *argentatus* were not following their foster parents. Cross-fostering resulted in many mixed species pairs, rare in natural populations. The sex of the imprinted bird is important in pair formation; males will mate with either species but females only with males of their own species or, in cross-fostered birds, with males of their foster parents. Wide ecological and behavioral overlaps occur between the species, but color of the mantle and wings functions in species recognition at long range and color of the eye-ring and joint of the mandibles at short range. Many interesting implications.—R.W.S.

SHORT, L. L. 1969. An apparently melanic Hairy Woodpecker from New Mexico. Bird-Banding, 40: 145–146.

SHORT, L. L. 1970. Reversed sexual dimorphism in tail length and foraging differ-

ences in woodpeckers. Bird-Banding, 41: 85–92.—Generally male picids are larger than females, with greater weights and longer wings and bills. In certain species, including *Dendrocopos nuttallii*, *D. borealis*, and some *D. pubescens*, females show reversed sexual dimorphism in that they have longer tails. A shorter tail may be more advantageous to males as they do more excavating, and a longer tail to females as they do more balancing on small perches.—G.E.W.

General Biology

Alvarez del Toro, M. 1970. Notas para la biología del Pájaro Cantil (*Heliornis fulica*). Icach, 1: 7–13. Inst. Ciencias Artes Chiapas, Tuxtla Gutierrez, Chiapas, Mexico.—Notes on the biology of the American Sun Grebe. During the breeding season the female acquires a patch of cinnamon feathers on the cheeks, and her eyelids and maxilla turn scarlet. The incubation period is only 10 days; both sexes incubate. Young are altricial, almost naked when hatched (photographs included). The most extraordinary finding was the chick-carrying behavior. When disturbed at the nest a male dropped into the water, swam, and then flew while carrying two, newly hatched, blind nestlings in concavities formed on each side by a fold in the skin and the pterylae of the pectoral and ventral regions. It is not known how long the young are carried in this manner or whether the female also carries them. (Short English summary.)—E.E.

Anderson, B. W., and D. W. Warner. 1969. A morphological analysis of a large sample of Lesser Scaup and Ring-necked Ducks. Bird-Banding, 40: 85–94.—During the spring waterfowl migration of 1964, 3,333 oil spill casualties were picked up along the Mississippi River in Minnesota. Of these 65 per cent were *Aythya affinis* and 17 per cent *A. collaris*. Body, skeletal, and gonadal measurements were taken. Yearlings of both species averaged smaller in all measurements.—F.E.L.

Baxter, R. M., and E. K. Urban. 1970. On the nature and origin of the feather colouration in the Great White Pelican *Pelecanus onocrotalus roseus* in Ethiopia. Ibis, 112: 336–339.—The substance responsible for the brown, orange, and yellow coloration of the feathers of pelicans from Lake Shala in the Rift Valley is a form of ferric oxide, which stains the feathers while the birds are in the water. The four distinct color phases in the population may represent four genetic strains, each more or less saturated with iron.—R.W.S.

Blake, C. H. 1969. Notes on the Indigo Bunting. Bird-Banding, 40: 133–139.—Survival rate, sex ratios, molt, weights, and comparison with *Guiraca caerulea* based on 10 years' banding at a station in North Carolina.—F.E.L.

Blake, C. H., and J. M. Cadbury. 1970. An old warbler. Bird-Banding, 40: 255.—*Mniotilta varia* at least 11 years old.—G.E.W.

Bolen, E. G., and J. J. Beecham. 1970. Notes on the foods of juvenile Black-bellied Tree Ducks. Wilson Bull., 82: 325–326.

Boswall, J., and M. Demment. 1970. The daily altitudinal movement of the White-collared Pigeon *Columba albitorques* in the High Simien, Ethiopia. Bull. Brit. Ornithol. Club, 90: 105–107.—*Columba albitorques* rise from 7,000 to 12,000 feet each morning to feed on the plateau, and descend at high speeds in the afternoon, presumably to roost in caves at lower levels.—F.B.G.

Brackbill, H. 1970. A Cardinal "divorce." Bird-Banding, 40: 255.

Brackbill, H. 1970. Reverse mounting by the Red-headed Woodpecker. Bird-Banding, 40: 255.—Very interesting.—G.E.W.

Brown, L. H. 1965. Observations on Verreaux's Eagle Owl *Bubo lacteus* (Temminck) in Kenya. J. E. African Nat. Hist. Soc. and Nat. Mus., 25: 101–107.—Behavioral and breeding notes on one of Africa's least-known owls.—M.A.T.

BURKE, V. E. M., AND L. H. BROWN. 1970. Observations on the breeding of the Pink-backed Pelican *Pelecanus rufescens*. Ibis, 112: 499–512.—The first detailed study on the biology of this species. Includes notes on natural history of the species at Rakewa in Kenya with details on breeding cycle, plumage, displays, eggs and incubation, development of young, and productivity. The "convulsions" noted in young are probably redirected aggression.—R.W.S.

CALDER, W. A. 1970. Use of Dipper nest by Mountain Bluebird. Condor, 72: 498.

CHANIOT, G. E., JR. 1970. Notes on color variation in downy Caspian Terns. Condor, 72: 460–465.

CLAPP, R. B., AND C. D. HACKMAN. 1969. Longevity records for a breeding Great Frigatebird. Bird-Banding, 40: 47.—An incubating female *Fregata minor* captured on Jarvis Island, Line Islands, banded as an adult, was at least 34 years old.—F.E.L.

DEXTER, R. W. 1969. Banding and nesting studies of the Chimney Swift, 1944–1968. Ohio J. Sci., 69: 193–213.—A resume of Dexter's contributions to our knowledge of *Chaetura pelagica*.—H.C.S.

DONALDSON, G., AND H. HAYS. 1970. Roseate Tern in unusual plumage. Bird-Banding, 40: 255.—Possibly a second-year individual.—G.E.W.

GREENWOOD, J. J. D., AND J. D. GOSS-CUSTARD. 1970. The relative digestibility of the prey of Redshank *Tringa totanus*. Ibis, 112: 543–544.—Corrects the conclusion of Goss-Custard (Ibis, 111: 338–356, 1969). Relative digestibilities do not vary with changes in proportions of the two prey species.—R.W.S.

HARDY, J. W. 1970. Duplex nest construction by Hooded Oriole circumvents cowbird parasitism. Condor, 72: 491.

HAVENS, P. 1970. Aberrations in the clutch size of the Semi-palmated Plover. Condor, 72: 481.

HEIN, D. 1970. Dust-bathing sites selected by Ruffed Grouse. Wilson Bull., 82: 310–314.

HOLCOMB, L. C. 1969. Breeding biology of the American Goldfinch in Ohio. Bird-Banding, 40: 26–44.—Nest construction, egg laying, cowbird parasitism, clutch size, egg weight, egg dimensions, incubation period, and nesting success of *Spinus tristis*.—F.E.L.

HOLCOMB, L. C. 1970. Growth of nestling American Goldfinches depending on the number in the nest and hatching sequence. Bird-Banding, 41: 11–17.—Relative growth of nestlings does not correlate to sequence of hatching except for fifth-hatched, which were slower; growth is faster in nests with few siblings. *Spinus tristis* apparently adjust to food shortage by reduction of clutch size or mortality of youngest siblings.—B.A.H.

HOLCOMB, L. C., AND G. TWIEST. 1970. Growth rates and sex ratios of Red-winged Blackbird nestlings. Wilson Bull., 82: 294–303.

HOLYOAK, D. T. 1970. Sex-differences in feeding behaviour and size in the Carrion Crow. Ibis, 112: 397–400.—Feeding behavior of male *Corvus corone* differs from that of females, and males feed the young larger prey items than females do. The sexual differences in feeding may be a selective pressure for the larger bills of males, but the importance of the bill in agonistic behavior complicates such a tempting conclusion.—B.A.H.

JACKSON, J. A. 1970. A quantitative study of the foraging ecology of Downy Woodpeckers. Ecology, 51: 318–323.—Foraging behavior is characterized by partitioning of the foraging niche by the sexes, seasonal variation in the relative frequency of the foraging modes (percussion, scaling, peering and poking, flycatching), variation in mode of foraging on live vs. dead trees, and seasonal variation in the use of live and dead trees.—H.W.K.

JACKSON, J. A. 1970. Predation of a black rat snake on Yellow-shafted Flicker nestlings. Wilson Bull., 82: 329–330.

JOHNSON, A. W., W. R. MILLIE, AND G. MOFFETT. 1970. Notes on the birds of Easter Island. Ibis, 112: 532–538.—No native land birds are known but introduced *Passer domesticus* and *Milvago chimango* have overrun the island. During December 1968, 11 seabird species were observed or collected and reliable records of two others exist. The islanders' bird-cult ritual is described and a photo of a petroglyph included. The large size of *Sterna fuscata* eggs is notable.—R.W.S.

JOHNSTON, D. W. 1970. Age and sex distribution in Indigo Buntings. Bird-Banding, 41: 113–118.—Based primarily on television tower and ceilometer kills and mist-netting, a sex ratio of 1.46 males to 1.00 female exists in *Passerina cyanea*. The author suggests the disbalance many develop prior to fledging. Age ratios, and sex ratios during migration, also are discussed.—G.E.W.

KIBLER, L. F. 1969. The establishment and maintenance of a bluebird nest-box project. Bird-Banding, 40: 114–129.—Gives practical suggestions on construction, location, maintenance, and predator proofing of boxes for *Sialia sialis*. Discusses predators, competitors, and parasites, and recommends procedures for trapping and banding.—S.C.W.

KILLPACK, M. L. 1970. Notes on Sage Thrasher nestlings in Colorado. Condor, 72: 486–488.

LANCE, A. N. 1970. Movements of Blue Grouse on the summer range. Condor, 72: 437–444.

MACBRIAR, W. N., JR. 1970. Eight-year-old Bank Swallow (*Riparia riparia*). Bird-Banding, 41: 130.

MERRILL, R. D., AND R. D. KIRKPATRICK. 1970. Utilization of three Delaware County, Indiana borrow pits by birds. Indiana Audubon Quart., 48: No. 4.—Eleven species of waterfowl, 13 of shorebirds, and 27 additional species were recorded January–December 1968.—B.A.H.

MICHAEL, E. D. 1970. Frequency of feeding nestling Purple Martins. Amer. Midl. Naturalist, 84: 284–286.—Records the rate adults fed young in two *Progne subis* families in Nacogdoches, Texas.—G.D.S.

MIDDLETON, A. L. A. 1970. Foods and feeding habits of the European Goldfinch near Melbourne. Emu, 70: 12–16.—*Carduelis carduelis* was introduced into south-eastern Australia in the mid-1800s. It has spread throughout that region in human-modified areas. The Australian birds show no major differences from European birds in feeding habits or food.—L.L.S.

MITTERLING, L. A. 1969. Blue Jays and blueberries. Bird-Banding, 40: 47–48.

NEWMAN, G. A. 1970. Cowbird parasitism and nesting success of Lark Sparrows in southern Oklahoma. Wilson Bull., 82: 304–309.

OATLEY, T. B. 1970. Observations on the food and feeding habits of some African robins (Aves: Turdinae). Ann. Natal Mus., 20: 293–327.—Details of the feeding habits and dietary preferences of 22 species of birds of the genera *Erythropygia, Sheppardia, Stiphrornis, Pogonocichla, Swynnertonia,* and *Cossypha* of the subfamily Turdinae resident in sub-Saharan Africa. (Author's summary.)—M.A.T.

POTTHOFF, T., AND W. J. RICHARDS. 1970. Juvenile bluefin tuna, *Thannus thannus* (Linnaeus), and other scombrids taken by terns in the Dry Tortugas, Florida. Bull. Marine Sci., 20: 389–413.—Juvenile scombrids were present in regurgitation samples of Sooty Terns (*Sterna fuscata*) and Brown Noddies (*Anous stolidus*) during periods when adults were raising chicks, but not when incubating eggs. The temporal variation may be due to changes in food preference by the terns or to changes in availability of various prey items.—B.A.H.

PRATT, H. M. 1970. Breeding biology of Great Blue Herons and Common Egrets in central California. Condor, 72: 407–416.

RISBERG, E. L. 1970. [The Scarlet Grosbeak's *Carpodacus erythrinus* immigration into Sweden and studies of its breeding biology.] Vår Fågelvärld, 29: 77–89.—Few records until the 1950s, when a notable increase occurred. Favored habitat is open parklands with low mixed growth. Displays closely resemble those of the Purple Finch (*Carpodacus purpureus*). Clutch 5 to 6; incubation period 11 to 12 days by the female; nest life 10 days; nestlings leave before able to fly. (In Swedish; English summary.)—L.d.K.L.

ROSEBERRY, J. L., AND W. D. KLIMSTRA. 1970. The nesting ecology and reproductive performance of the Eastern Meadowlark. Wilson Bull., 82: 243–267.

RUTTER, R. J. 1970. Gray Jays accept transfer to a different nest in a new location. Bird-Banding, 41: 130–131.—Two 15-day-old nestling *Perisoreus canadensis* placed in an old nest in a carton situated a few feet from the nest tree were cared for by the parents.—G.E.W.

SIEGFRIED, W. R., AND P. G. H. FROST. 1970. Notes on the Madagascar Kestrel *Falco newtoni*. Ibis, 112: 400–402.—Data collected during 1,300 km of motor journeys in July 1969. Relates bird density to human habitation and compares the behavior of *F. newtoni* and *F. tinnunculus*. Includes morphometric data on 7 live-trapped females and 4 males.—R.W.S.

SMITH, D. G., C. R. WILSON, AND H. H. FROST. 1970. Fall nesting Barn Owls in Utah. Condor, 72: 492.

SNYDER, N. F. R., AND H. A. SNYDER. 1970. Feeding territories in the Everglade Kite. Condor, 72: 492–493.

STEWART, P. A. 1970. Weight changes and feeding behavior of a captive-reared Bald Eagle. Bird-Banding, 41: 103–110.—During the second week after hatching a young *Haliaeetus leucocephalus* consumed 150–200 g of food daily, or about 48 per cent of its body weight, and gained an average of 33.4 g per day. Thereafter 336 g daily seemed an adequate maintenance diet. Growth was completed at 70–74 days of age, which matches the nestling period for the species. Food preference tests showed preference for smelts and cowbirds over laboratory rats and rejection of a house cat and two snakes.—G.E.W.

STRESEMANN, E., AND V. STRESEMANN. 1969. Die Mauser einiger *Emberiza*-Arten I. J. Ornithol., 110: 291–313.—*E. melanocephala* and *E. bruniceps* have two molts each year; unlike other *Emberiza* (and all other oscines!) the flight feathers are renewed during the winter molt into the breeding plumage. The postbreeding molt of the adult males may involve most of the body plumage; in adult females the molt is less extensive. The postbreeding molt is interrupted by autumn migration. The young have a "soft nestling plumage" followed by a molt shortly after leaving nest into a "juvenal plumage," and then by a molt in the wintering area in India into the "adult plumage." In *E. aureola* northern populations interrupt autumn migration in the lower Yangtze region of China and molt the entire plumage before proceeding south to the wintering area; southern populations molt before migrating. My apologies to Messrs. Humphrey and Parkes for my failure in translation. (English summary.)—H.C.M.

TAYLOR, W. K. 1970. Molts of the Verdin, *Auriparus flaviceps*. Condor, 72: 493–496.

TAYLOR, W. K., AND H. HANSON. 1970. Observations on the breeding biology of the Vermilion Flycatcher in Arizona. Wilson Bull., 82: 315–319.

WELLER, M. W. 1970. Additional notes on the plumages of the Redhead (*Aythya americana*). Wilson Bull., 82: 320–323.

ZIMMERMAN, D. A. 1970. Roadrunner predation on passerine birds. Condor, 72: 475–476.

MANAGEMENT AND CONSERVATION

BECK, M. W. R. 1969. Emu capture in the field using an immobilizing drug and Cap-Chur Apparatus. CSIRO Wildl. Res., 14: 195–197.—Reports on technique and dosage for Flaxedil (gallamine triethiodide).—R.W.S.

COOCH, F. G. 1969. The current state of the art. Trans. 33rd Federal-Provincial Wildl. Conf., pp. 39–50.—Discusses theoretical and actual aspects of waterfowl management relating to bag limits, productivity, and population maintenance. Notes a paucity of relevant data.—R.W.S.

DONOHOE, R. W., AND C. MCKIBBEN. 1970. The wild Turkey in Ohio. Ohio Game Monogr., 3: vi + 32 pp.—The status of birds reestablished in southeastern Ohio.—H.C.S.

ELLIOTT, C. C. H., AND M. J. F. JARVIS. 1970. Fourteenth Ringing Report. Ostrich, 41: 1–117.—The first section gives ringing totals for species recorded from July 1963 to June 1968, with grand totals for all species ever ringed by the South African Ornithological Society Ringing Scheme. The details of 1,790 recoveries and retraps in the same 5-year period are given in the second section with brief comments on some species. (From authors' summary.)—M.A.T.

JAKIMCHUK, R. D. 1969. An analysis of agricultural damage by waterfowl in Alberta. Trans. 33rd Federal-Provincial Wildl. Conf., pp. 68–82.—Waterfowl damage crops, shooting damages waterfowl, crop damage not reduced by shooting.—R.W.S.

KEITH, J. A. 1969. Some results and implications of pesticide research by the Canadian Wildlife Service. Trans. 33rd Federal-Provincial Wildl. Conf., pp. 27–30.—Briefly reviews results of chemical residue analyses in several species of birds (high levels found in fish- and bird-eating birds) and points out need for relating chemical burden to population dynamics. Includes an eloquent appeal to biologists with "special" ecological knowledge to participate actively in informing society on the environmental consequences of human population expansion.—R.W.S.

MOUNTFORT, G. 1970. The need for research concerning endangered species. Ibis, 112: 445–447.—Urges concerted international effort for organized studies and announces formation of a committee within the B.O.U. to prepare proposals for such research.—R.W.S.

ROWLEY, I. 1969. An evaluation of predation by "crows" on young lambs. CSIRO Wildl. Res., 19: 153–179.—*Corvus coronoides* and *C. tasmanicus* kill few lambs but feed extensively on dying and dead animals. The birds are highly territorial but numbers of corvids present in a given area correspond to food availability through the movements of nomadic flocks of juveniles.—R.W.S.

SMITH, S. B. 1969. Critique of waterfowl management in Canada. Trans. 33rd Federal-Provincial Wildl. Conf., pp. 51–58.

VAN TETS, G. F., W. J. M. VESTJENS, AND E. SLATER. 1969. Orange runway lighting as a method for reducing bird strike damage to aircraft. CSIRO Wildl. Res., 14: 129–151.—Orange lights of short wavelength attracted 92 per cent fewer insects and spiders than did white light, thus attracting fewer birds and bats that feed on the arthropods and reducing the possibility of aircraft/bird strikes.—R.W.S.

MIGRATION AND ORIENTATION

BACKHURST, G. C. 1968. Report on bird ringing in East Africa for 1966–1967. J. E. African Nat. Hist. Soc. and Nat. Mus., 27(116): 61–65.

BACKHURST, G. C. 1969. Bird ringing report 1967–1968. J. E. African Nat. Hist. Soc. and Nat. Mus., 27(118):217–225.—Of special interest are palaearctic passerines that return to the same wintering grounds after one or two years.—M.A.T.

BRACKBILL, H. 1970. Slate-colored Junco wintering dates at Baltimore. Bird-Banding, 41: 131.

CLENCH, M. H. 1970. Additional observations on the fall migration of adult and immature Least Flycatchers. Bird-Banding, 40: 238–243.—Data from three field stations suggest that all immature *Empidonax minimus* migrate through eastern North America at about the same time, but that migration of adults is concentrated inland and may be differently timed. Adults moving down the Allegheny Mountains appear almost a month later than those farther west.—G.E.W.

ELY, C. A. 1970. Migration of Least and Traill's Flycatchers in west-central Kansas. Bird-Banding, 41: 198–204.—Three years' data from a mist-netting station on timing, density, and sex of transients.—S.C.W.

GAUTHREAUX, S. A., JR. 1969. A portable ceilometer technique for studying low-level nocturnal migration. Bird-Banding, 40: 309–320.—Discusses use of a fixed beam to observe migration on moonless nights. The beam appeared to affect very few birds, caused no kills, and costs only about 14 dollars.—C.F.S.

HOUSTON, C. S., AND E. F. MARTINEZ. 1969. One week flight of a Least Sandpiper. Bird-Banding, 40: 146.—In less than seven days, 930 miles from Saskatoon, Saskatchewan, to Cheyenne Bottoms, Kansas.—F.E.L.

JOHNSON, N. K. 1970. Fall migration and winter distribution of the Hammond Flycatcher. Bird-Banding, 41: 169–190.—Data for 644 specimens of *Empidonax hammondii* show fall migration along the coast is more protracted than in the interior. No difference in timing between age and sex classes was detected. Includes list of specimen localities.—S.E.W.

MATTOX, W. G. 1970. Banding Gyrfalcons (*Falco rusticolus*) in Greenland, 1967. Bird-Banding, 41: 31–37.—Fourteen juveniles banded.—B.A.H.

MEANLEY, B., AND G. M. BOND. 1970. Molts and plumages of the Red-winged Blackbird with particular reference to fall migration. Bird-Banding, 41: 22–27.—Numerous (500+) specimens and mass banding indicate that most *Agelaius phoeniceus* molt before southward migration.—B.A.H.

MOLDENHAVER, R. R. 1970. An interesting recovery of a banded Evening Grosbeak during the 1968–69 winter incursion into East Texas. Bird-Banding, 41: 39.—Recovered 11 April 1969, Huntsville, Texas. Banded 21 February 1966, Gordonsville, Virginia.—F.E.L.

NISBET, I. C. T. 1970. Autumn migration of the Blackpoll Warbler: Evidence for long flight provided by regional survey. Bird-Banding, 41: 207–240.—Data from banding stations and television-tower kills support the hypothesis that western populations fly to the Atlantic coast, concentrate between Virginia and Nova Scotia, and then fly directly to their wintering grounds in northern South America.—S.C.W.

NISBET, I. C. T., AND W. H. DRURY, JR. 1970. A migration wave observed by moon-watching and at banding stations. Bird-Banding, 40: 243–252.—Moon watching indicated the main SSE fall departure, presumably mostly of Blackpoll Warblers, occurred the first evening after a cold front. The main SW movement, presumably of other species, occurred on the second evening. The strength of the offshore NW winds probably was a causative factor. At the coastal station SW migrants arrived on the second morning after the front with immatures most abundant. At the inland station SW migrants arrived another day later with immatures less predominant. The massive departure of SSE migrants was accompanied by a small decrease in netting rate of Blackpolls.—G.E.W.

NISBET, I. C. T., AND W. H. DRURY. 1970. Nocturnal migrants changing direction in flight. Bird-Banding, 40: 252–254.—Of 233 birds observed during 1 hour flying SW with 20 knot NW winds, 7 or 8 flew in widely curving tracks and three changed direction twice.—G.E.W.

PENNEY, R. L., AND D. K. RIKER. 1969. Adelie Penguin orientation under the northern sun. Antarctic J. U. S., 4: 116–117.—*Pygoscelis adeliae* captured at Cape Crozier were transported within 58 hours of capture to Grand Forks Co., North Dakota, and released within 2 weeks on partially snow-covered fields on days with clear skies. They exhibited the predicted clockwise shift in orientation of 30° per hour.—R.W.S.

RIEFFENBERGER, J. C., AND F. FERRIGNO. 1970. Woodcock banding on the Cape May Peninsula, New Jersey. Bird-Banding, 41: 1–10.—Nightlighting technique for capturing migrants.—B.A.H.

SAMUEL, D. E. 1970. Banding, paint-marking and subsequent movements of Barn and Cliff Swallows. Bird-Banding, 41: 97–103.—Virtually no information beyond banding and marking techniques and a description of the study area appears in this paper. The conclusion that marking and handling did not affect the movement of the swallows, of which 18 of 132 painted birds were not seen subsequently, is unsubstantiated and should be rejected.—G.E.W.

STEWART, P. A. 1969. Non-homing by incubating Screech Owl released four miles from its nest. Bird-Banding, 40: 146.—An *Otus asio* was recaptured after 3 days in a nesting box 60 yards from the release site. The original two eggs received no further incubation.—F.E.L.

ZOHRER, J. J. 1970. Observations on premigratory movements of hand-reared Mallards. Wilson Bull., 82: 323–324.

MISCELLANEOUS

BAEGE, L. 1969. Alte Mitgliedsdiplome der Deutschen Ornithologen-Gesellschaft aus der Geschichte der DO-G. J. Ornithol., 110: 318–323.—An illustrated description of the various membership certificates issued during the more than 100 years of German ornithological society.—H.C.M.

BENNETT, G. F. 1970. Simple techniques for making avian blood smears. Canadian J. Zool., 48: 585–586.—Describes two techniques and simple equipment for improving quality of avian blood smears obtained in field surveys.—H.W.K.

BRISBIN, I. L., JR. 1970. A determination of live-weight caloric conversion factors for laboratory mice. Ecology, 51: 541–544.—Describes regression equations that allow the calculation of the calories of energy consumed by a carnivore fed on whole laboratory mice (*Mus*), given the individual weights of the mice eaten. A valuable technique for anyone studying energetics in birds of prey, snakes, etc., that may not apply to wild-caught mice, which generally have a lower fat content.—H.W.K.

CSIRO DIVISION OF WILDLIFE RESEARCH. 1969. An index of Australian bird names. Div. Wildl. Res. Tech. Pap. No. 20, pp. 1–93.—A taxonomically arranged list of the species of Australian birds, both native and introduced, giving recommended vernacular and scientific names, other common and scientific names in current use, and a brief description of the geographic ranges. Only common names are used for subspecies. Alphabetically arranged indices to the vernacular and scientific names follow the taxonomic list.—G.E.W.

DEHAVEN, R. W., AND J. L. GUARINO. 1969. A nest-box trap for Starlings. Bird-Banding, 40: 48–50.—A "museum special" mousetrap is the basis for a trap door. Authors believe their technique could be used for other box nesters.—F.E.L.

DUNSTAN, T. C. 1970. Successful reconstruction of active Bald Eagle nest. Wilson Bull., 82: 326–327.

FREDRICKSON, L. H. 1970. A nylon belt for holding birds. Bird-Banding, 41: 242–243.

GILL, D. E., W. J. L. SLADEN, AND C. E. HUNTINGTON. 1970. A technique for capturing petrels and shearwaters at sea. Bird-Banding, 41: 111–113.—A hoop-net about 1 m diameter used to capture 250 tubenoses.—G.E.W.

HAILMAN, J. P. 1969. The continuing problem of fat classes and a "rule of thumb" for identifying interval and ratio data. Bird-Banding, 40: 321–322.—As measurements of fat classes are ordinal data, not interval or ratio measurements, parametric statistics cannot be used on fat data.—C.F.S.

JEHL, J. R., JR. 1969. Band wear in Stilt Sandpipers—a warning. Bird-Banding, 40: 47.—Eight of 19 *Micropalama himantopus* recaptured one year after banding showed heavy band pitting and corrosion. Anodized bands are suggested to counteract the probable effects of frequenting sewer ponds on migration.—F.E.L.

JENKINSON, M. A., AND R. M. MENGEL. 1970. A device for handling mist nets in the dark. Bird-Banding, 41: 38–39.—A lightweight fabric cover. A furled net, left on poles, is covered, wrapped around one pole, and then both poles are secured with a handkerchief.—F.E.L.

KADLEC, J. A., AND W. H. DRURY, JR. 1970. Loss of bands from adult Herring Gulls. Bird-Banding, 40: 216–221.—Six counting methods used on adult *Larus argentatus* 3 and 4 years after banding resulted in the conclusion that probably 45 per cent of the bands are lost within 3 years of banding.—G.E.W.

KOEPCKE, H. W., AND M. KOEPCKE. 1970. Las aves silvestres de importancia económica del Perú, pt. 16: 121–128. Ministerio de Agricultura, Servicio Forestal y de Caza, Lima, Peru.—Continuation of a series of useful leaflets begun in 1963, sold at a nominal price (S/. 5 per leaflet). The present leaflet covers sun grebe (*Heliornis*), Sunbittern (*Eurypyga*), Wattled Jaçana (*Jacana jacana*), two oystercatchers (*Haematopus*), stilt (*Himantopus*), Andean Avocet (*Recurvirostra andina*), and Peruvian Thick-knee (*Burhinus superciliaris*). A drawing, description of characters, and information on habitat, behavior, and food are supplied for each species. Often includes hitherto unpublished information. Scientific, local, and standard English names are given.—E.E.

LARSEN, K. H. 1970. A hoop-net trap for passerine birds. Bird-Banding, 41: 92–96.—Based on the concept of a lowered entrance, the advantages of this trap are light weight, compactness, and ease of erection. Thousands of *Carpodacus mexicanus* have been captured.—G.E.W.

LLOYD, A. C., AND M. H. CLENCH. 1969. A device for forming hummingbird bands. Bird-Banding, 40: 45–46.

MARTIN, S. G. 1970. A technique for capturing nesting grassland birds with mist nets. Bird-Banding, 40: 233–237.—Mist nets arranged in a "V" or in a tent shape with one end open, placed around a nest are useful for capturing grassland breeders. —G.E.W.

NETTLESHIP, D. N. 1969. Trapping Common Puffin fledglings. Bird-Banding, 40: 129–144.—Fences in a colony with gentle slopes lead walking chicks to collecting boxes.—F.E.L.

PHILLIPS, A. R., AND W. E. LANYON. 1970. Additional notes on the flycatchers of eastern North America. Bird-Banding, 41: 190–197.—Includes information on status of tyrannids in Florida, a key to eastern North America *Myiarchus*, and descriptions of five western *Empidonax* species. Stresses the necessity of using multiple characters to identify species in this difficult group.—S.C.W.

POLCYN, G. M. 1970. The capillary tube in avian blood studies. Bird-Banding, 41: 132–133.

PRESCOTT, K. W. 1970. Missing foot of Red-winged Blackbird and Blue Jay. Bird-Banding, 41: 41.

RALPH, C. J., AND F. C. SIBLEY. 1970. A new method of capturing nocturnal alcids. Bird-Banding, 41: 124–127.—A large (60 × 20 feet), ¼-inch mesh, vertical net turned up at the base to form a trough was used successfully to catch many Cassin's Auklets.—G.E.W.

STEWART, P. A. 1970. Introduction of foreign eggs into nests of Starlings and House Sparrows. Bird-Banding, 41: 241.—Efforts to make these species hatch and rear more desirable species were not successful.—O.L.A., Jr.

SUGDEN, L. G., AND H. J. POSTON. 1970. A raft trap for ducks. Bird-Banding, 41: 128–129.—A loafing raft with a hand-triggered bow net.—G.E.W.

THOMPSON, M. C. 1970. Band wear on Ruddy Turnstones. Bird-Banding, 41: 241–242.—Recommends using special alloys to overcome electrolytic action in estuarine waters and excessive abrasion.—O.L.A., Jr.

THORNSBERRY, W. H. 1969. A compound leverage, banding pliers. Bird-Banding, 40: 130–132.—A modified compound leverage plier effects perfect band closure by compressing the band around its entire circumference. Sizes 3–9.—F.E.L.

WEAVER, D. K., AND J. A. KADLEC. 1970. A method for trapping breeding adult Herring Gulls. Bird-Banding, 41: 28–31.

WIENS, J. A., S. G. MARTIN, W. R. HOLTHAUS, AND F. A. IWEN. 1970. Metronome timing in behavioral ecology studies. Ecology, 51: 350–352.—An inexpensive, portable electronic metronome emits tone pulses through an earphone at intervals that can be varied from 1 to 20 seconds. Suggestions for field study use. (From authors' abstract.)—H.W.K.

WORTH, C. B. 1970. Aspiration of seeds by trapped Red-winged Blackbirds. Bird-Banding, 41: 243–244.

PHYSIOLOGY

HAMNER, W. M., AND J. STOCKING. 1970. Why don't Bobolinks breed in Brazil? Ecology, 51: 743–751.—An interesting discussion of various hypotheses that try to answer this question and a thorough review of the literature on photoperiodicity in birds. Includes a 15-month study of the testis cycle, molt pattern, body weight fluctuations, and beak color of spring-captured male *Dolichonyx* on simulated natural daylength cycles. The authors conclude that after termination of absolute insensitivity to light in late October, Bobolinks become progressively sensitive to shorter daylengths, reaching maximal sensitivity in April. The mechanism for this remains unknown, and may not be circadian. A plausible exposition, but not the final answer.—H.W.K.

HUGHES, M. R. 1970. Some observations on ion and water balance in the puffin, *Fratercula arctica*. Canadian J. Zool., 48: 479.—Presents hematocrit, plasma sodium, potassium, and chloride values for six adult puffins. A salt load experiment on one adult proved the salt glands to be very efficient. One young laboratory-reared puffin was studied in detail.—H.W.K.

LIGON, J. D. 1970. Still more responses of the Poor-will to low temperatures. Condor, 72: 496–498.

LUSTICK, S., S. TALBOT, AND E. L. FOX. 1970. Absorption of radiant energy in Red-winged Blackbirds (*Agelaius phoeniceus*). Condor, 72: 471–473.

MURTON, R. K., B. LOFTS, AND A. H. ORR. 1970. The significance of circadian based photosensitivity in the House Sparrow *Passer domesticus*. Ibis, 112: 448–456.—

Luteinizing hormone levels and histological condition of testes were measured in photoperiod experiments. Only long day schedules induced increased testicular growth and spermatogenesis. These results are considered in relation to FSH and LH levels, and the ecological and ethological adaptations involved are discussed.—R.W.S.

PAYNE, R. B., AND M. LANDOLT. 1970. Thyroid histology of Tricolored Blackbirds (*Agelaius tricolor*) in the annual cycle, breeding, and molt. Condor, 72: 445–451.

RICKLEFS, R. E. 1969. Preliminary models for growth rates in altricial birds. Ecology, 50: 1031–1039.—Points out some ecological consequences of developmental rate in birds and presents several hypotheses to explain control of growth (increase in weight) rates. Available food or food-gathering ability may constitute the limit to growth rate in some precocial species, and the rates of ingestion, digestion, and assimilation may limit this rate in altricial species. Postulates that physiological constraints, based on the fundamental organization of the body plan, limit growth rates by limiting the rate at which food can be processed and utilized.—H.W.K.

SCHWAB, R. G. 1970. Light-induced prolongation of spermatogenesis in the European Starling, *Sturnus vulgaris*. Condor, 72: 466–470.

SERVENTY, D. L. 1970. Torpidity in the White-backed Swallow. Emu, 70: 27–28.—Information suggesting torpidity in *Cheramoeca leucosternum* is in need of verification. No swallow is known to exhibit this habit.—L.L.S.

TAXONOMY AND PALEONTOLOGY

AMADON, D. 1970. Variation in the trachea of the Cracidae (Galliformes) in relation to their classification. Nat. Hist. Bull. Siam Soc., 23: 239–248.—A subcutaneous tracheal elongation occurs in male chachalacas, *Ortalis,* where the trachea extends the length of the sternum before doubling back to enter the thoracic cavity. Among the guans only certain species of *Penelope* have tracheal elongations. Here the elongations occur in both sexes; they may be as extensive as in *Ortalis* or much shorter. *Oreophasis* perhaps has no loop. Among the currasows loops are found only in males. *Nothocrax, Mitu* and *Pauxi* have long loops, whereas in *Crax* the loop is restricted to the interclavicular space or even may be lacking. In guans the evolutionary trend is towards loss of tracheal elongation and (perhaps) loss of certain types of outcries. Possibly the same trend exists in currasows.—G.E.W.

BROOKE, R. K. 1970. Geographical variation and distribution in *Apus barbatus, A. bradfieldi,* and *A. niansae* (Aves: Apodidae). Durban Mus. Novitates, 8: 363–374.—Describes two new races, *Apus barbatus oreobates* from eastern Rhodesia, and *A. bradfieldi deserticola* from Cape Province. That such strong fliers have so many local races is remarkable.—M.A.T.

CRACRAFT, J. 1970. A new species of *Telmabates* (Phoenicopteriformes) from the Lower Eocene of Patagonia. Condor, 72: 479–480.

EISENMANN, E. 1969. Wing formula as a means of distinguishing Summer Tanager, *Piranga rubra,* from Hepatic Tanager, *P. flava.* Bird-Banding, 40: 144–145.—Standard characters such as presence of tomial "tooth," and color of maxilla, lores, and cheeks occasionally overlap. Wing formula is a supplemental character.—F.E.L.

FEDUCCIA, J. A. 1970. The avifauna of the Sand Draw local fauna (Aftonian) of Brown County, Nebraska. Wilson Bull., 82: 332–334.

FEDUCCIA, J. A. 1970. Variation in avian plasma proteins. Condor, 72: 498–499.

FORD, J. 1970. Distribution of quail-thrushes in the Northern Territory, and their taxonomic relations. Emu, 70: 135–139.—Further study of four Australian quail-thrushes is needed, but *Cinclosoma marginatum* and *C. castaneothorax* probably are

conspecific, and *C. cinnamomeum* possibly is related more closely to *C. alisteri* than to either of the other two forms.—L.L.S.

HOLYOAK, D. T. 1970. The status of *Eos goodfellowi*. Bull. Brit. Ornithol. Club, 90: 91.—Specimens of the lory *Eos goodfellowi* appear to be juvenile *E. bornea*.—F.B.G.

MEYER DE SCHAUENSEE, R. 1970. A review of the South American finch *Oryzoborus crassirostris*. Notulae Naturae, No. 428.—Study of the distributions of the races of *Oryzoborus crassirostris* reveals that two species are actually involved, a small-billed, short-tailed monotypic species, *O. crassirostris,* and a large-billed, long-tailed polytypic species, *O. maximiliani*.—F.B.G.

PARKES, K. C. 1970. A revision of the Philippine Trogon (*Harpactes ardens*). Nat. Hist. Bull. Siam Soc., 23:345–352.—Five races of this Philippine endemic species including *Harpactes ardens herberti,* new subsp., are reported from northeastern Luzon. The carotinoid pigments fade, often rapidly, in all trogons.—G.E.W.

PARKES, K. C. 1970. The Philippine races of the Rufous-capped Grass Warbler *Megalurus timoriensis*. Bull. Brit. Ornithol. Club, 90: 111–115.—Describes a rufescent race *Megalurus timoriensis alopex* subsp. nov. from Leyte and reviews the diagnostic characters of all four races of *M. timoriensis*. Habitat differences between *M. timoriensis* and *M. palustrus* in the Philippines may be a case of "competitive exclusion."—F.B.G.

PHILLIPS, A. R. 1970. A northern race of lark supposedly breeding in Mexico. Bull. Brit. Ornithol. Club, 90: 115–116.—Describes an extremely pale lark, *Eremophila alpestris lactea* subsp. nov. from Coahuila, Mexico.—F.B.G.

RAND, A. L. 1970. Species formation in the blue monarch flycatchers genus *Hypothymis*. Nat. Hist. Bull. Siam Soc., 23: 353–365.—The author proposes recognizing three species of *Hypothymis*: *azurea* with five races including the currently recognized species *puella, helenae* with three including *agusanae* subsp. nov., and *coelestis* with two including *rabori* subsp. nov. Discusses the possible origin of these forms.—G.E.W.

RIPLEY, S. D. 1970. A new form of rail from the Celebes. Nat. Hist. Bull. Siam Soc., 23: 367–368.—*Rallus pectoralis deignani* is described based on one specimen from West Central Celebes.—G.E.W.

SAUER, E. G. F. 1968. Calculations of struthionus egg sizes from measurements of shell fragments and their correlation with phylogenetic aspects. Cimbebasia, Ser. A, 1: 27–55.—Calculations of egg sizes from shell fragments of all fossil and recent forms of the Struthionidae using the Geneva Lens Measure instrument indicate that all Pliocene and Pleistocene specimens are larger than recent forms. Rejects the separation of *Pachystruthio* from *Struthio*. No subspecific differences in egg sizes and shell thickness are noted in *Struthio camelus*.—R.W.S.

SAUER, E. G. F. 1969. Taxonomic evidence and evolutionary interpretation of *Psammornis*. Bonn. Zool. Beitr. 20: 290–310.—The taxonomic position of *Psammornis,* known only from eggshell fragments, is reviewed. Evidence from microscopic and mensural analysis of shells indicates that separation of *Psammornis* from *Struthio* is questionable and that *Psammornis* is not an intermediate linking the Struthionidae with the Aepyornithidae.—R.W.S.

SCHNELL, G. D. 1970. A phenetic study of the suborder Lari (Aves)/1. Methods and results of principal components analyses. 2. Phenograms, discussion, and conclusions. Syst. Zool., 19: 35–57, 264–302.—Describes phenetic (i.e., phenotypic) affinities of the 93 species of skuas, gulls, terns, and skimmers in detail using multivariate statistical techniques to analyze 51 skeletal and 72 external characters. Presents results in the form of 3-D models and phenograms. Gives some cladistic

speculations and discusses the relative positioning and stability of the main species clusters.—G.D.S.

TRAYLOR, M. A. 1970. Notes on African Muscicapidae. Ibis, 112: 395–397.—Presents classification for the African flycatchers to be used in Peters' Check-list: Muscicapinae including *Melaenornis, Fraseria, Muscicapa, Myioparus, Humblotia,* and *Newtonia*; Platysteirinae including *Bias* (*Megabyas*), *Pseudobias, Batis,* and *Platysteira* (*Dyaphorophyia*); and Monarchinae including *Erythrocercus, Elminia, Trochocercus,* and *Terpsiphone. Hyliota* and *Stenostira* are removed to the Sylviinae. *Dioptrornis, Bradornis, Empidornis, Melaenornis* and *Sigelus* are lumped in *Melaenornis*.—R.W.S.

TRAYLOR, M. A. 1970. East African *Bradornis*. Ibis, 112: 513–531.—Examination of over 500 adult muscicapids indicates that two species or species groups exist: *B. pallidus* (9 races) and *B. microrhynchus* (5 races). Field studies, especially on behavior and ecology, are needed to elucidate further the relations within the genus.—R.W.S.

WOLTERS, H. E. 1970. On the generic classification of the weaver-birds of the *Malimbus-Ploceus* group. Nat. Hist. Bull. Siam Soc., 23: 369–391.—The ploceine weaver-birds of the *Ploceus-Malimbus* group (Group A of Moreau, Ibis, 102: 298–321, 443–471, 1960) are redistributed among 16 genera and 20 subgenera based primarily on morphological and ethological differences.—G.E.W.

ZUSI, R. L., AND J. T. MARSHALL. 1970. Comparison of Asiatic and North American sapsuckers. Nat. Hist. Bull. Siam Soc., 23: 393–407.—The Asiatic Rufous-bellied Woodpecker, *Hypopiscus hyperythrus*, is placed in the genus *Dendrocopos* on the basis of pterylography, tongue and hyoid structure, voice, and color pattern. Differences from other members of this genus are attributed to feeding on sap and resemble specializations found in *Sphyrapicus*.—G.E.W.

OBITUARIES

JOHN TREADWELL NICHOLS was born at Jamaica Plain, Massachusetts on June 11, 1883 and died at Garden City, Long Island, New York on November 10, 1958. He lived on Long Island and loved the sea and shore. To friends he sent a privately published little collection of "Sea Rymes" he had written. His wife, a descendant of one Flood, a signer of the Declaration of Independence, inherited a venerable place at Mastic, Long Island, with former slave quarters still standing; the family often visited this shore estate.

Though of substantial means, Nichols' tall, weatherbeaten, Lincolnesque figure, clad in comfortably old clothes and topped by a battered felt hat, long buffeted by wind, sand, and salt brine, astounded his socialite relatives. He was generous to a fault and made gifts to the A.O.U. totaling hundreds if not thousands of dollars, but refused to be listed as a Patron during his lifetime.

Nichols, an all around naturalist, favored birds, but his friend, Frank Chapman, told him he could foresee no opening in that field at the American Museum of Natural History, to which institution both young men had been attracted. Nichols accordingly specialized in ichthyology, wrote many papers and a major work on the fresh water fishes of China, and founded the journal "Copeia" along the way, at his own expense. Yet he never lost his interest in birds. He ran a banding station for many years and published dozens of ornithological short notes and articles. He was the editor of a series "Birds of Long Island," which appeared, eight issues in all, from 1939 to 1954. Number 7, 1953, by Nichols entitled "Shorebird memories," provides many vignettes of the man in his chosen haunts. All in all, Jack Nichols,—a man to remember!—D. AMADON.