

## PERIODICAL LITERATURE

EDITED BY HERBERT W. KALE II

### ANATOMY AND EMBRYOLOGY

- BRACKENBURY, J. H. 1972. Lung-air-sac anatomy and respiratory pressures in the bird. *J. Exp. Biol.* 57: 543-550.—Measurements from chickens show that, regardless of the tidal volume of individual air sacs, the respiratory pressure wave is similar in all. Transitory differences of pressure, which become more significant as pressure acceleration increases, do exist between sacs and are dependent on resistance to flow between sacs. Airway resistance is greatly increased during vocalization. Develops an electrical analogue model.—A.S.G.
- BURDICK, M. L. 1972. Differences in the morphogenetic properties of mouse and chick embryonic liver cells. *J. Exp. Zool.* 180: 117-125.
- BURTON, P. J. K. 1972. Some anatomical notes on the Wrybill. *Notornis* 19: 26-32.—Describes head and neck anatomy of *Anarhynchus frontalis*. Concludes that it most closely resembles *Charadrius plovers*.—G.D.S.
- CAPLAN, A. I. 1972. The effect of the nicotinamide sensitive teratogen 3-acetylpyridine on chick limb mesodermal cells in culture: biochemical parameters. *J. Exp. Zool.* 180: 351-362.—*In vitro* studies suggest that "alterations in local concentrations of essential molecules like nicotinamide, DPN or TPN can control phenotypic expression."—A.S.G.
- CROMPTON, D. W. T., AND M. C. NESHIEM. 1972. A note on the biliary system of the domestic duck and a method for collecting bile. *J. Exp. Biol.* 56: 545-550.—Describes a connection between the hepato-enteric and cystohepatic ducts.—A.S.G.
- DILLINGHAM, I. H. 1972. A rare colour aberration in the Southern Black-backed Gull *Larus dominicanus*. *Bull. Brit. Ornithol. Club* 92: 101.—White diamond-shaped patch on upper wing surface.—F.B.G.
- FISK, E. J. 1973. Further notes on the color of Mockingbird eyes. *Bird-Banding* 44: 124.—Except for juveniles eye color is a poor criterion for aging *Mimus polyglottos*.—B.A.H.
- FLAXMAN, A. B. 1972. Cell differentiation and its control in the vertebrate epidermis. *Amer. Zool.* 12: 13-25.—A brief but good summary of the pattern of keratinization of the feather.—C.M.W.
- GAUNT, A. S., R. C. STEIN, AND S. L. L. GAUNT. 1973. Pressure and air flow during distress calls of the Starling, *Sturnus vulgaris* (Aves: Passeriformes). *J. Exp. Zool.* 183: 241-261.—Air sac pressures during distress calls increase to  $\times 40$  respiratory amplitudes, but tracheal pressures are the same or lower than during respiration. Although calls last twice as long as breaths, flow is reduced and thus tidal volume increases only slightly. Cessation of vocalization when the sac system is ruptured (Hérissant Effect) is attributed to an alteration of flow to bypass a pressure independent valve rather than a necessity for a high pressure surrounding the syrinx. Reduction of the syringeal bore during vocalization in oscines is attributed to a valve, probably involving the external labium, controlled by muscular contraction rather than a pressure differential.—A.S.G.
- GORECKI, D., AND L. V. DOMM. 1972. Sex chromatin frequency in the avian amnion. *Amer. Zool.* 12: 213-221.—Explores amniotic cells in domestic fowl that are reported to have heterochromatic and late-replicating W sex chromosomes. Findings support the idea that the cytological entity identified as sex chromatin in the domestic fowl represents the W sex chromosome in the interphase nucleus.—C.M.W.

- HADLEY, M. E. 1972. Functional significance of vertebrate integumental pigmentation. *Amer. Zool.* 12: 63-76.—Discusses examples from birds under topics covering alluring colors, color as a social releaser, and thermoregulatory role of integumental pigmentation.—C.M.W.
- HARDY, J. W. 1973. Age and sex differences in the black-and-blue jays of middle America. *Bird-Banding* 44: 81-90.—Describes age-related soft part color changes and feather molt in *Cyanocorax melanocyanea*, *C. sanblasiana*, *C. yucatanica*, and *C. beecheri*. Certain external characters or combinations of characters can be used to age individuals up to 4 years old, and iris color as well as size can be used in *C. sanblasiana* sex determination.—B.A.H.
- HILFER, S. R., AND M. STERN. 1971. Instability of the epithelial-mesenchymal interaction in the eight-day chick thyroid. *J. Exp. Zool.* 178: 293-306.—Reaggregation of 8-day monolayers reveals the necessity of thyroid capsule cells for normal differentiation.—A.S.G.
- INGRAM, C. 1972. The feet of young swifts *Apus apus*, *caffer* and *affinis*. *Bull. Brit. Ornithol. Club* 92: 96.—Calls attention to his first paper on temporary zygodactyly.—F.B.G.
- LEISLER, B. 1972. Artmerkmale am Fuss adulter Teich- und Sumpfrohränger (*Acrocephalus scirpaceus*, *A. palustris*) und ihre Funktion. *J. Ornithol.* 113: 366-373.—The Marsh Warbler can be distinguished from the Reed Warbler by its smaller feet. Reed Warblers can climb vertical stems better than Marsh Warblers and this ability is correlated with the anatomical differences. (English summary.)—H.C.M.
- LING, J. K. 1972. Adaptive functions of vertebrate molting cycles. *Amer. Zool.* 12: 77-93.—Presents a brief summary on the molt, development of feathers, and histological changes during feather growth. Greater detail is given under the topics of seasonal cycles and endocrines and molting.—C.M.W.
- QUAY, W. B. 1972. Integument and the environment: glandular composition, function, and evolution. *Amer. Zool.* 12: 95-108.—A brief section discusses the avian uropygial gland.—C.M.W.
- RALPH, C. L. 1970. Structure and alleged functions of avian pineals. *Amer. Zool.* 10: 217-235.—Discusses the embryology, morphology, innervation, cytology, and biochemistry of the avian pineal, which is structurally very diverse among bird species and is virtually lacking in owls. Pinelectomy indicates that this structure may play some role in controlling gonadal function.—C.M.W.
- ROSENQUIST, G. C. 1972. Endoderm movements in the chick embryo between the early short streak and head process stage. *J. Exp. Zool.* 189: 95-104.
- SCHAEFFER, F. S. 1973. Tactile bristles of Saw-whet Owls are sensitive to touch. *Bird-Banding* 44: 127.
- SMITH, N. G. 1971. Biovarianism in an insular population of a Neotropical bird. *Amer. Midl. Naturalist* 86: 238-241.—The Barred Antshrike (*Thamnophilus doliatus*) on some Panamanian islands has two ovaries. Discusses possible adaptive advantages.—G.D.S.
- THOMPSON, C. F. 1973. Postjuvenile molt in the White-eyed Vireo. *Bird-Banding* 44: 63-65.
- VANDEN BERGE, J. C. 1970. A comparative study of the appendicular musculature of the order Ciconiiformes. *Amer. Midl. Naturalist* 84: 289-364.—Compares gross anatomy of appendicular muscles in 21 genera, representing all but one of the families. *Nycticorax nycticorax* used as type. Includes general taxonomic comments.—G.D.S.

- WOOD, D. S., AND D. L. WOOD. 1973. Quantitative iris color change with age in Downy Woodpeckers. *Bird-Banding* 44:100-101.—Based especially on hue, young and adult *Dendrocopos pubescens* may be aged correctly at certain times of the year.—B.A.H.
- WORTHEN, G. L. 1972. An anomalous bill in a Pintail. *Kansas Ornithol. Soc. Bull.* 23: 9-10.

## BEHAVIOR

- ARCHER, J. 1973. The influence of testosterone on chick behavior in novel experiments. *Behav. Biol.* 8: 93-108.—Testosterone administration reduced intensity of "emotional response" in young domestic chickens.—H.C.M.
- AUBIN, A. E. 1972. Aural communication in Ruffed grouse. *Canadian J. Zool.* 50: 1225-1229.—Sounds produced by wingbeats of males varied between birds and also between years for the same birds. Males may drum in response to drumming display of others.—R.M.E.
- BARKLEY, W. D. 1972. The application of closed-circuit television to nature interpretation. *Canadian Field-Naturalist* 86: 162.—Shown live on television at a nature center in Ontario were predation of a Ruffed Grouse nest by a weasel and an American Goldfinch nest by a snake.—R.W.N.
- BERTHOLD, P., E. GWINNER, AND H. KLEIN. 1972. Circannuale Periodik bei Grasmücken. 2. Periodik der Gonadengröße bei *Sylvia atricapilla* und *S. borin* unter verschiedenen konstanten Bedingungen. *J. Ornithol.* 113: 407-417.—Blackcaps and Garden Warblers, most of them hand-reared, were kept under constant conditions in the laboratory for 3 years. Most individuals showed endogenous annual rhythms (circannual) in gonadal size, nocturnal unrest, and molt. (English summary.)—H.C.M.
- BESSON, J. 1970. Réactions du Gravelot à collier interrompu et du Guépier à l'égard du Faucon hobereau. *Nos Oiseaux* 33: 264.—Behavior of *Charadrius alexandrinus* and *Merops apiaster* towards *Falco subbuteo*.—A.C.
- BORCHELT, P. L., AND S. C. RATNER. 1973. Development of freezing and immobility, predator defenses, in the Bobwhite Quail (*Colinus virginianus*). *Behav. Biol.* 8: 83-92.—Immobility (bird placed on its side by investigator) increased from 0 at 5 to 10 days of age to more than 60 seconds at 15 to 30 days. Duration of "freezing" increased from 0 at 4 to 9 days to 10 seconds at 29 days.—H.C.M.
- BRACKBILL, H. 1973. Immature Robin gathering nest material. *Wilson Bull.* 85: 238.—But did not attempt to construct a nest.—H.W.K.
- BURTT, H. E. AND M. L. GILTZ. 1973. Personality as a variable in the behavior of birds. *Ohio J. Science* 73: 65-82.—During large scale banding at a decoy trap, several species were scored for "complacency-agitation" and "aggressiveness." Differences were noted among individuals, species, and some age and sex classes, e.g. Starlings are the most "agitated," cowbirds the most "complacent." Grackles, which display an attachment for a given area, or topophilia, tend to reenter the trap most frequently; other species tend to reenter according to their "complacency."—A.S.G.
- CHOUSSY, D. 1971. Comportement pré-nuptial du Moyen-duc *Asio otus*. *Grand-Duc* 2: 38-39.—Pre-nuptial behavior in Long-eared Owl.—A.C.
- COOPER, J. 1972. Stretching in the Fiscal Shrike [*Lanius collaris*]. *Ostrich* 43: 232.
- COUTLEE, E. L. 1971. Vocalizations in the genus *Spinus*. *Anim. Behav.* 19: 556-565.—A comparative study of *S. lawrencei*, *S. psaltria*, and *S. tristis* in the laboratory and field. As all three occur in mixed flocks in winter, their threat,

- alarm, and distress calls are similar, but contact and courtship calls are dissimilar.—F.E.L.
- DUNCAN, I. J. H., AND D. G. M. WOOD-GUSH. 1971. Frustration and aggression in the domestic fowl. *Anim. Behav.* 19: 500-504.—Aggression following frustration increases with length of the food deprivation period.—F.E.L.
- EMLÉN, J. T. 1973. Territorial aggression in wintering warblers at Bahama Agave blossoms. *Wilson Bull.* 85: 71-74.
- EMLÉN, S. T. 1971. Geographical variation in Indigo Bunting song (*Passerina cyanea*). *Anim. Behav.* 19: 407-408.—New York Indigo Buntings share 92% of all song figures with Michigan and Kentucky buntings. This high degree of geographic constancy is unusual as adult song is learned.—F.E.L.
- EVANS, R. M., AND M. E. MATTON. 1972. Development of selective responses to individual maternal vocalizations in young *Gallus gallus*. *Canadian J. Zool.* 50: 777-780.—One-day-old domestic chicks responded selectively to clucks previously paired with a familiar visual stimulus.—R.M.E.
- EVANS, S. M., AND G. R. PATTERSON. 1971. The synchronization of behavior in flocks of estrildine finches. *Anim. Behav.* 19: 429-438.—In captives, feeding and flighting in *Amandava subflava* and flighting in *Uraeginthus bengalus* are synchronized by visual and auditory releases, whereas clumping in both species and feeding in *U. bengalus* is synchronized visually. In mixed flocks birds react to visual clues but not to vocalizations.—F.E.L.
- GERBRANDT, L. K., AND S. E. HERZOG. 1973. The sensitivity of cardiac and somatic measures of memory retention in chicks. *Behav. Biol.* 8: 137-142.—Peck suppression was a better indicator of memory than heart rate in one-trial avoidance learning tests in young domestic chickens.—H.C.M.
- GRASS, A. 1972. Robin attacks garter snake. *Canadian Field-Naturalist* 86: 292.
- GOULDEN, L. L. 1972. Notes on a captive Poor-will in Alberta. *Blue Jay* 30: 222-225.—A bird that returned to a farmhouse doorstep 3 days after an initial visit indoors and subsequent release was brought inside (30 October 1971) and kept as a household pet until released again 12 July 1972. Includes interesting notes on its behavior.—R.W.N.
- GÜTTINGER, H. R. 1972. Elementwahl und Strophenaufbau in der Gesangs-entwicklung einiger Papageiamadinen-Arten (Gattung: *Erythrura*, Familie: Estrildidae). *Z. Tierpsychol.* 31: 26-38.—The development of song in several species of parrot finches appears to be affected less by imprinting and exposure to adult song than is true of most passerines. Young *E. trichroa* reared by Bengalees (*Lonchura striata*) sang a song very similar to wild-caught individuals in phrase framework, but the individual elements differed. No elements of Bengalee song were present. (English summary.)—H.C.M.
- HAARHAUS, D. 1973. Eine Methode zum Registrieren der Rufaktivität in Labor und Freiland. *J. Ornithol.* 114: 57-70.—Description of an electronic gadget which can be tuned to "recognize" specific bird vocalizations by responding only to certain temporal groupings of sounds of certain frequencies. Includes circuit diagrams and parts lists. (English summary.)—H.C.M.
- HAARHAUS, D. 1973. Die Zeteraktivität der Amsel (*Turdus merula*). *J. Ornithol.* 114: 71-78.—Automatic recordings of the alarm calls of Blackbirds in the field (see above). Discusses daily and annual rhythms. (English summary.)—H.C.M.
- HAILMAN, J. P. 1971. The role of stimulus-orientation in eliciting the begging response from newly-hatched chicks of the Laughing Gull (*Larus atricilla*). *Anim. Behav.* 19: 328-335.—The begging rate of naive, newly hatched chicks increases with verticality of the stimulus-object. Chicks can discriminate between the

- parent's bill and legs because the bill projects from above whereas the legs project upward to eye level where they join with the body.—F.E.L.
- HARRIS, M. A., AND R. E. LEMON. 1972. Songs of Song Sparrows (*Melospiza melodia*): individual variation and dialects. Canadian J. Zool. 50: 301-309.—Combinations of notes serially repeated in songs were more similar within than between populations. Dialects are present even though there is extensive individual variability in the song pattern of this species.—R.M.E.
- HAYS, H., E. DUNN, AND A. POOLE. 1973. Common, Arctic, Roseate, and Sandwich Terns carrying multiple fish. Wilson Bull. 85: 233-236.
- HUGUES, B. O., AND D. G. M. WOOD-GUSH. 1971. A specific appetite for calcium in domestic chickens. Anim. Behav. 19: 490-499.
- IMPEKOVEY, M. 1970. Prenatal experience of parental calls and pecking in the Laughing Gull (*Larus atricilla* L.). Anim. Behav. 19: 475-480.—Prenatal exposure of chicks to an adult "crooning" call did not enhance the normal response, pecking for food, and chicks pecked less often when hearing an alarm call "kow" regardless of prenatal experience with this call.—F.E.L.
- IVERSEN, J. A. 1973. A flexible system for recording activity of caged animals. Physiol. and Behav. 10: 971-972.—Could be used for birds.—J.A.J.
- LEWIS, D. M. 1972. Importance of face mask in sexual recognition and territorial behavior in the Yellowthroat. Jack-Pine Warbler 50: 98-109.—When male and female *Geothlypis trichas* were painted to remove or add face masks, both sexes continued to maintain proper sex roles. Playback of tape recorded calls did not appear to show any correlation in sex recognition.—W.T.V.
- MACROBERTS, M. H. 1973. Extramarital courting in Lesser Black-backed and Herring Gulls. Z. Tierpsychol. 32: 62-74.—Notes on courtship and mounting attempts of male *L. fuscus* on neighboring females. This behavior, not noted on Walney Island in 1962-1965, has now become reasonably common. Apartment dwellers might be interested to note that nesting density has almost doubled since 1965.—H.C.M.
- MARLER, P., M. KONISHI, R. LUTJEN, AND M. S. WASER. 1973. Effects of continuous noise on avian hearing and vocal development. Proc. Natl. Acad. Sci. 70: 1393-1396.—Male canaries raised in continuous loud noise to age 40 days, then deafened surgically, developed fewer song syllables than those left intact. Those left in noise to sexual maturity sang at first like surgically deafened birds but then corrected their repertoire, presumably by ability to hear their own song. (Author's abstract.)
- MCDONALD, D. L. 1973. The role of shadows in directional training and homing of pigeons, *Columbia livia*. J. Exp. Zool. 183: 267-280.—The smallest differences discriminated by the birds were 3.4° azimuth and 8° altitude. These differences are not enough for the navigational schemes proposed by Matthews and Penny-cuick. All birds tested used the shadow patterns in the test apparatus; learning in a shadowless environment proved more difficult. If attention to shadow patterns plays a role in normal navigation and homing orientation, it is not known. A.S.G.
- McNICHOLL, M. K. 1972. The use of hovering as a search method by the Northern Shrike. Blue Jay 30: 96-97.—One bird repeatedly hovered over different locations in an open marshy field for 20 minutes, apparently in search of small mammals.—R.W.N.
- MORRIS, R. L. AND C. J. ERICKSON. 1971. Pair bond maintenance in the Ring Dove (*Streptopelia risoria*). Anim. Behav. 19: 398-406.—After isolation up to

- 7 months, doves reunite with original mates even if physical contact is prevented by glass partitions.—F.E.L.
- NEWKLOWSKY, W. 1972. Untersuchungen über die biologische Bedeutung und die Motivation der Zirkelbewegung des Stars (*Sturnus v. vulgaris* L.). Z. Tierpsychol. 31: 474–502.—Starlings often feed by inserting the closed bill and then opening it. Presents data and arguments that these prying movements are innate, fixed action patterns “with a high endogenous production of action specific energy.” (English summary.)—H.C.M.
- NICOLAI, J. 1972. Zwei neue *Hypochoera*-Arten aus West Afrika (Ploceidae, Viduinae). J. Ornithol. 113: 229–240.—Two new species are described on the basis of the specificity of the hosts that they parasitize and the associated specializations in mouth markings and begging calls of the nestlings. (English summary.)—H.C.M.
- NICOLAI, J. 1973. Das Lernprogramm in der Gesangsausbildung der Strohvitwe *Tetraenura fischeri* Reichenow. Z. Tierpsychol. 32: 113–138.—The song of the East African Straw-tailed Widow Bird contains the entire pattern (8 phrases) of its host species (*Uraeginthus ianthinogaster*) plus 3 viduine phrases: the first is typical of all viduines, the second peculiar to the genus, the third peculiar to the species. Cross-fostering experiments with the Bengalee (*Lonchura striata*) reveal that the viduine phrases and nestling begging calls are “innate” and the acquisition of the remainder of the song is from foster parents and other species nearby but can be modified by exposure to the song of adult male conspecifics. (English summary.)—H.C.M.
- NISBET, I., AND H. ALEXANDER. 1973. The Common Tern: friend of the wind. Natl. Geogr. 144: 234–247.—Photographic essay covers behavior of Common Tern (*Sterna hirundo*) at Tern Island, Cape Cod. Accompanied by text.—J.T.D.
- NOTTEBOHM, F., AND M. E. NOTTEBOHM. 1971. Vocalizations and breeding behavior of surgically deafened Ring Doves (*Streptopelia risoria*). Anim. Behav. 19: 313–327.—Deafened male squabs develop normal vocalizations, but deaf females paired to normal males have a longer period between pairing and ovulation than intact females, and they delay nest building. Deaf parents underfeed their young and abandon them prematurely.—F.E.L.
- PETRINOVICH, L., R. M. YODER, AND C. W. DOBSON. 1972. The significance of White-crowned Sparrow song. Behav. Biol. 7: 795–803.—Birds will learn rapidly to perform a conditioned response either to terminate or to start the playing of a recording of conspecific song.—H.C.M.
- PROCTOR, N. S. 1973. Turkey Vulture harassed in flight by Mallard pair. Wilson Bull. 85: 78.
- QUERENGÄSSER, A. 1973. Über das Einemsen von Singvögeln und die Reifung dieses Verhaltens. J. Ornithol. 114: 96–117.—Studies of anting with captive passerines including hand-reared *Sturnus vulgaris*, *Leiothrix lutea*, and *Siva cyanouroptera*. Naive birds at first consumed ants; anting first appeared at 32–37 days of age in the three species. Boiled, acid-free ants were tried briefly, and then ignored. Anting usually occurs only every few days, with ants being consumed in the interval. (English summary.)—H.C.M.
- SALZEN, E. A., R. E. LILLY, AND J. R. MCKEOWN. 1971. Colour preference and imprinting in domestic chicks. Anim. Behav. 19: 542–547.—Day-old chicks showed a preference for red and yellow that could be modified by experience.—F.E.L.

- SNOW, B. K. 1973. The behavior and ecology of Hermit Hummingbirds in Kanaku Mountains, Guyana. *Wilson Bull.* 85: 163-177.
- SOSSINKA, R. 1972. Langfristiges Durstvermögen wilder und domestizierter Zebra-finken (*Taeniopygia guttata castanotis* Gould). *J. Ornithol.* 113: 418-426.—Under moderate conditions in the laboratory, zebra finches showed 90% survival over 3 months, and 52% survival over 18 months without access to water. The beaks of deprived birds showed abnormal growth and the plumage was in poor condition. (English summary).—H.C.M.
- STEFANSKI, R. A., AND J. B. FALLS. 1972. A study of distress calls of Song Swamp, and White-throated Sparrows (Aves: Fringillidae). 1. Intraspecific responses and functions. *Canadian J. Zool.* 50: 1501-1512.—Responses of breeding pairs to playbacks varied with stage of cycle, and peaked when late nestlings and fledglings were capable of emitting distress calls. Distress calls encouraged attacks on predators.—R.M.E.
- STEFANSKI, R. A., AND J. B. FALLS. 1972. A study of distress calls of Song Swamp, and White-throated Sparrows (Aves: Fringillidae). 2. Interspecific responses and properties used in recognition. *Canadian J. Zool.* 50: 1513-1525.—*Melospiza melodia* and *M. georgiana* have similar distress calls that elicited similar responses from males of either species. The calls of *Zonotrichia albicollis* differ, and interspecific responses between this species and *Melospiza spp.* were weak. Signal length, carrier frequency, and frequency modulation rate are relevant for call recognition.—R.M.E.

## DISEASES AND PARASITES

- ATYEO, W. T., AND J. GAUD. 1971. Feather mites (Analoidea: Pterolichidae) of the Hoatzin (Aves: Galliformes). *Amer. Midl. Naturalist* 86: 152-159.—Drawings and micrographs of types of the monotypic genera *Opisthocomacarus* and *Stakyonemus*. Discusses the adaptiveness of their unique idiosomal chaetotaxy.—G.D.S.
- AUSTIN, F. G., AND H. E. WELCH. 1972. The occurrence, life cycle, and pathogenicity of *Echinuria uncinata* (Rudolphi, 1819) Soloviev, 1912 (Spirurida, Nematoda) in waterfowl at Delta, Manitoba. *Canadian J. Zool.* 50: 385-393.—Juvenile nematodes were found mainly in *Daphnia*. The parasite life cycle is completed in ducks, different host species being differentially susceptible. Parasites survive over winter in resident Mallards.—R.M.E.
- BARUS, V., AND N. LORENZO HERNANDEZ. 1971. Nematodes parasitos de aves en Cuba. Parte 4. *Poeyana* No. 88.—Eleven species of nematodes found in 8 species of charadriiform birds include 10 new host records and 4 species here first reported for the neotropical region.—W.B.R.
- BENNETT, G. F. 1972. Blood parasites of some birds from Labrador. *Canadian J. Zool.* 50: 353-356.—Over one-third of 454 birds from 38 species contained hematozoa, mainly species of *Leucocytozoon*.—R.M.E.
- BENNETT, G. F., AND A. G. CAMPBELL. 1972. Avian Haemoproteidae. 1. Description of *Haemoproteus fallisi* n. sp. and a review of the haemoproteids of the family Turdidae. *Canadian J. Zool.* 50: 1269-1275.—Of Turdidae examined in insular Newfoundland 20% were infected.—R.M.E.
- BENNETT, G. F., AND C. D. MACINNES. 1972. Blood parasites of geese of the McConnell River, N.W.T. *Canadian J. Zool.* 50: 1-4.—In a sample of 736 Blue, Snow, and Canada geese 2.9% were infected with blood parasites, mainly *Leucocytozoon simondi*.—R.M.E.

- BURNHAM, G. L. 1972. Some helminth parasites of the Sandhill Crane in west Texas. *Southwestern Naturalist* 17: 200-201.—One species of trematodes, two of nematodes, two of cestodes, and one acanthocephalid were found in *Grus canadensis*.—J.J.D.
- Cooper, J. E. 1973. Blood parasites from a Red-chested Owllet *Glaucidium tephronotum*. *Bull. Brit. Ornithol. Club* 93: 25-26.—Two kinds of *Protozoa* and numerous microfilariae in blood of one captive individual.—F.B.G.
- DE LA CRUZ, J. 1971. Nuevas adiciones a la acarofauna parasita (Acarina: Hypoderidae y Ptilonyssidae) de las aves de Cuba. *Poeyana*, No. 90, 6 pp.—Two new species (*Ptilonyssus garridoi* sp. nov. from Swainson's Warbler; *Tyranninyssus myiarchi* sp. nov. from Stolid Flycatcher) and four new host records of mites from resident and migrant birds in Cuba.—W.B.R.
- GIBSON, G. G., E. BROUGHTON, AND L. P. E. CHOQUETTE. 1972. Waterfowl mortality caused by *Cyathocotyle bushiensis* Kahn, 1962 (Trematoda: Cyathocotylidae), St. Lawrence River, Quebec. *Canadian J. Zool.* 50: 1351-1356.—First record of *C. bushiensis* in natural definitive hosts: *Anas rubripes*, *A. discors*, and *A. carolinensis*. Pathogenicity was confirmed experimentally.—R.M.E.
- LOCKE, L. N., J. A. NEWMAN, AND B. M. MULHERN. 1972. Avian cholera in a Bald Eagle from Ohio. *Ohio J. Sci.* 72: 294-296.—In adult male. Also gives levels of DDE, DDD, and PCB's in brain.—A.S.G.
- LUND, E. E., AND A. M. CHUTE. 1972. The Ring-necked Pheasant (*Phasianus colchicus torquatus*) as a host for *Heterakis gallinarum* and *Histomonas meleagridis*. *Amer. Midl. Naturalist* 87: 1-7.—Experimental infections were established in pheasants, chickens, and turkeys for comparison. Concludes that pheasants can be an important source of contamination of soil with *Histomonas*-bearing *Heterakis* eggs.—G.D.S.
- PARK, C. K., AND W. T. ATYEO. 1973. The Pterodectine feather mites of hummingbirds: The genera *Syntomodectes* Park and Atyeo and *Sclerodectes*, new genus. *J. Georgia Entomol. Soc.* 8: 39-51.
- PEIRCE, M. A., AND N. A. DIN. 1970. Two new hosts for *Clinostomum phalacrocoracis* Dubois, 1931 (Trematoda) from Uganda. *J. Parasitol.*, 56: 489.—*Pelecanus onocrotalus* and *P. rufescens*.—W.K.T.

## DISTRIBUTION AND ANNOTATED LISTS

- ALBERTS, S. 1972. Dickcissel sighted near Brooks, Alberta. *Blue Jay* 30: 199.
- ASH, J. S. 1973. Six species of birds new to Ethiopia. *Bull. Brit. Ornithol. Club* 93: 3-6.—Details the first known occurrences of *Calidris melanotos*, *Chlorocichla flavicollis*, *Locustella fluviatilis*, *Phylloscopus sibilatrix*, *Acrocephalus baeticatus*, and *Lonchura fringilloides*.—F.B.G.
- BARLOW, M. 1972. The establishment, dispersal and distribution of the Spur-winged Plover in New Zealand. *Notornis* 19: 201-211.—The Australian *Lobibyx novaehollandiae* was self-introduced in 1932. Discusses its initial establishment, current distribution, and movements.—G.D.S.
- BARNARD, A. E. 1972. Sighting of Band-tailed Pigeon in southcentral Alberta. *Blue Jay* 30: 153-154.
- BEINTEMA, A. J. 1972. The history of the Island Hen (*Gallinula nesiotis*), the extinct flightless gallinule of Tristan da Cunha. *Bull. Brit. Ornithol. Club* 92: 106-113.—Traces old specimens from Tristan da Cunha, confirming occurrences there in 19th century.—F.B.G.



- BINFORD, L. C. 1973. A short method for treating avian breeding data in regional accounts. *Wilson Bull.* 85: 244-246.—This should be required reading for anyone planning to publish an annotated list.—H.W.K.
- BLACK, J. E. 1972. First Yellow Wagtail nest record for Canada. *Canadian Field-Naturalist* 86: 385.—Six pairs were seen and a nest found in June 1972, 30 miles east of the Firth River, Yukon Territory.—P.W.N.
- BOAG, D. A. 1972. Poor-will from east-central Alberta. *Canadian Field-Naturalist* 86: 296-297.
- BODDAM-WHETHAM, A. D. 1972. Birds in Orange Free State Gardens. *Ostrich* 43: 233-234.—Notes supplement observations by Winterbottom (*Ostrich* 42: 111-113).—R.B.P.
- BOSWALL, J. 1973. Supplementary notes on the birds of Point Tombo, Argentina. *Bull. Brit. Ornithol. Club* 93: 33-36.
- BOSWALL, J. AND R. J. PRYTHERCH. 1972. Some notes on the birds of Point Tombo, Argentina. *Bull. Brit. Ornithol. Club* 92: 118-129.—List of species numbers and breeding activity in November 1971. Observations of *Phalacrocorax magellanicus* and *Leucophaeus scoresbii* extend breeding ranges.—F.B.G.
- BRAZIER, F. 1972. Greater Prairie Chicken sighted again. *Blue Jay* 30: 198-199.—One in southern Saskatchewan 16 April 1972.—R.W.N.
- BROOKE, R. K. 1972. An out of season breeding record of *Aquila wahlbergi* from Zambia. *Bull. Brit. Ornithol. Club* 92:97.—Specimen of newly fledged juvenile suggests that not all *A. wahlbergi* leave Zambia in April—some stay and breed.—F.B.G.
- BROOKE, R. K. AND M. P. STUART IRWIN. 1972. A second southern record of the pipit *Tmetothylacus tenellus*. *Bull. Brit. Ornithol. Club* 92: 91.—Specimen from northwest Rhodesia suggests occasional eruptive southward movements.—F.B.G.
- BROWN, R. G. B. 1972. Thayer's Gulls wintering off western Newfoundland. *Canadian Field-Naturalist* 86: 294.
- BROWN, R. G. B. 1972. Probable sightings of Little Shearwaters, *Puffinus assimilis*, on the southeastern Grand Banks. *Canadian Field-Naturalist*. 86: 293-294.
- CAMPBELL, R. W. 1972. Coastal records of the Long-billed Curlew for British Columbia. *Canadian Field-Naturalist*. 86: 167-168.
- CAMPBELL, R. W., AND W. J. ANDERSON. 1972. Black-necked Stilt, new for British Columbia. *Canadian Field-Naturalist*. 86: 296.—A first record, verified by photographs.—R.W.N.
- CANNINGS, S. R. 1972. Brown Thrasher in British Columbia. *Canadian Field-Naturalist*. 86: 295.—A first record, verified by photographs.—R.W.N.
- CARLSSON, L., AND S. JACOBSSON. 1973. [Blue-winged Teal *Anas discors* first record for Sweden.] *Vår Fågelvärld* 32: 32-33.—(In Swedish, English summary.)—L.DEK.L.
- CHILD, K. N. 1972. A new distributional record for the Gadwell. *Canadian Field-Naturalist*. 86: 291-292.—A carcass found 8 June 1971 near Prudhoe Bay, Alaska.—R.W.N.
- CUNNINGHAM, VAN SOMEREN, G. R. 1973. *Tringa hypoleucos* Linnaeus breeding in East Africa. *Bull. Brit. Ornithol. Club* 93: 39-40.—Reasserts validity of nesting records.—F.B.G.
- DARBY, J. T. 1972. The Australian White-browed Wood Swallow in New Zealand. *Notornis* 19: 114-117.—Photograph of *Artamus superciliosus*, trapped 10 January

1972. Includes tentative identification of a Masked Wood Swallow, *A. personatus*.—G.D.S.
- DEBENEDICTIS, P. A., AND D. W. CRUMB. 1973. Wheatear at Lake Oneida, New York. *Kingbird* 23: 38–39.—Sixth record of *Oenanthe oenanthe* in upstate New York. All occurrences were in late September or early October (photo).—M.C.B.
- EDWARDS, M. H., AND R. D. WEIR. 1972. Lincoln's Sparrow at Inuvik, N.W.T. and Common Starling at Whitehorse, Yukon. *Canadian Field-Naturalist*. 86: 85.
- ERIZE, F. 1972. The Guanay Cormorant *Phalacrocorax bougainvillii* nesting on the Atlantic Coast of South America. *Bull. Brit. Ornithol. Club* 92: 117–118.—Fifty breeding pairs at Point Tombo, Argentina, extend range 3,000 km from Chile.—F.B.G.
- FINLEY, K. J. 1972. A 1921 photo of Whooping Crane. *Blue Jay* 30: 151–152.—Two birds shot in southwestern Saskatchewan.—R.W.N.
- FORSTER, R. A. 1972. Winter Wren, Sprague's Pipit and other records at Churchill [Manitoba]. *Blue Jay* 30: 27–28.
- GENNARO, A. L. 1973. Blue Jay breeding in New Mexico. *Southwestern Naturalist* 17: 432–433.—First state breeding record for *Cyanocitta cristata*.—J.J.D.
- GLEESON, N. M., S. M. FOGARTY, J. L. PLAYER, AND H. R. MCKENZIE. 1972. Black-headed Gulls extend breeding range north. *Notornis* 19: 330–334.—*Larus bulleri* extends north to Miranda coast, Firth of Thames, New Zealand.—G.D.S.
- GODFREY, W. E. 1972. North American Ruddy Turnstones in Britain. *Bull. Brit. Ornithol. Club* 92: 148.—Ellesmere Island individuals are not referable to *A. i. morinella* as implied by Harrison and Harrison in 1971 article.—F.B.G.
- GREENLEE, G. M. 1972. Great Crested Flycatcher again observed in Alberta. *Blue Jay* 30: 86–87.
- HARRIS, W. C. 1972. Traill's Flycatcher nesting at Saskatoon [Saskatchewan]. *Blue Jay* 30: 92.
- HAUFF, J. 1972. A King Penguin in the Magellan Strait. *Bull. Brit. Ornithol. Club* 92: 117.—Photograph record from Isla Magdalena.—F.B.G.
- HAVERSCHMIDT, F. 1972. Notes on the Yellow-billed Tern *Sterna superciliaris*. *Bull. Brit. Ornithol. Club* 92: 93–95.—Immatures occur commonly in saltwater habitats in coastal Surinam.—F.B.G.
- HÖGREN, S. 1973. [First record for Sweden of Egyptian Nightjar *Caprimulgus aegypticus*.] *Vår Fågelvärld* 32: 34–39.—(In Swedish, English summary.)—L.DEK.L.
- HELLEINER, F. M. 1972. House Sparrow at Schefferville, Quebec. *Canadian Field-Naturalist*. 86: 84–85.—About 360 miles north of previous records.—R.W.N.
- HELLEINER, F. M. 1972. Common Grackle at Rankin Inlet, Keewatin District. *Canadian Field-Naturalist*. 86: 84.—First Keewatin record 10 June 1970.—R.W.N.
- HÖGSTRÖM, S. 1973. [Hoopoe *Upupa epops* breeding on Gotland 1971.] *Vår Fågelvärld* 32: 40–42.—The nest was placed in a pile of limestones behind a cow stable. Five young fledged. (In Swedish, English summary.)—LDEK.L.
- HÖHN, E. O. 1972. Arctic Loon breeding in Alberta. *Canadian Field-Naturalist*. 86: 372.
- HOLYOAK, D. T. 1973. Notes on the birds of Rangiroa, Tuamotu Archipelago and the surrounding ocean. *Bull. Brit. Ornithol. Club* 93: 26–32.—F.B.G.
- HOUSTON, C. S. 1972. The Passenger Pigeon in Saskatchewan. *Blue Jay* 30: 77–83.—A carefully documented review of 21 historical observations from 1691 to

- 1894, including two records from adjacent Manitoba. Includes an interesting account of the later appearance in the region of the Mourning Dove.—R.W.N.
- HOUSTON, C. S. 1972. Early Whooping Crane nest records near Yorkton, Saskatchewan. *Blue Jay* 30: 152–153.
- HOUSTON, C. S. 1972. The Passenger Pigeon—addendum and erratum. *Blue Jay* 30: 221–222.—Corrects Manitoba migration records in Schorger's book on this species.—R.W.N.
- JACKSON, H. D. 1973. The Cape Eagle Owl *Bubo capensis* in Moçambique. *Bull. Brit. Ornithol. Club* 93: 10.—First specimen from Mozambique.—F.B.G.
- JONES, E. T. 1972. Townsend's Solitaire nesting in Cypress Hills, Alberta. *Blue Jay* 30: 33.—First nesting record outside the Rocky Mountains and east of the foothills.—R.W.N.
- KINSKY, F. C., AND E. B. JONES. 1972. Northern Shovelers (*Anas clypeata*) in New Zealand. *Notornis* 19: 105–110.—Gives two new records of this species. Species is thought to have originated in North America, but has been in New Zealand long enough for molt cycle to have adapted to Southern Hemisphere conditions.—G.D.S.
- KREBA, R. 1972. Townsend's Solitaire and Black-headed Grosbeak at Weyburn [Saskatchewan]. *Blue Jay* 30: 32–33.
- KUYT, E. 1972. First record of the Cattle Egret in the Northwest Territories. *Canadian Field-Naturalist*. 86: 83–84.—Specimen collected at Fort Smith 26 May 1971.—R.W.N.
- LAHRMAN, F. W. 1972. A rare observation of the Eskimo Curlew [on Padre Island, Texas]. *Blue Jay* 30: 87–88.—On 21 January 1972. Reviews other records, but none is as early (or late?) as this one.—R.W.N.
- LEE, N. 1972. Two new records of the Varied Thrush in Manitoba. *Blue Jay* 30: 83–84.
- LEHMAN, P. 1973. Sage Thrasher at Jones Beach State Park, Nassau Co., New York. *Kingbird* 23: 39–40.
- LOCK, A. R. 1972. A Nova Scotian Kittiwake colony. *Canadian Field-Naturalist*. 86: 291.—First recent nesting record; an estimated 90 pairs of Black-legged Kittiwakes.—R.W.N.
- MARTINEZ, E. F. 1972. Scrub Jay in Barton County, Kansas. *Kansas Ornithol. Soc. Bull.* 23: 7.—Records of *Aphelocoma coerulescens* for 12 October to 13 November 1971 in Barton County and 17 November 1970 (Stafford County—R.S.) are apparently the farthest east for Kansas.—R.S.
- MATHIASSEN, S. 1972. First records for the Sudan of *Sylvia cantillans*, *Acanthis cannabina* and *Emberiza cia*. *Bull. Brit. Ornithol. Club* 92: 103–106.
- McNICHOLL, M. K., R. E. ENGLAND, AND R. F. KOES. 1972. Black-necked Stilts observed in Manitoba. *Canadian Field-Naturalist*. 86: 380–382.
- MESSERLY, E. H. 1972. Forgotten records of the Painted Bunting in Kansas. *Kansas Ornithol. Soc. Bull.* 23: 20.—A previously published but overlooked nesting record of *Passerina ciris* for Saline County in 1918 is apparently the westernmost Kansas breeding record.—R.S.
- OATLEY, T. 1973. Indian House Crow, first S.A. sightings. *Bokmakierie* 25: 41–42.—*Corvus splendens* nested successfully in Natal, having apparently spread south from population introduced on Zanzibar.—R.B.P.
- OLSON, S. L. 1972. The American Purple Gallinule, *Porphyryla martinica* on Ascension and St. Helena Islands. *Bull. Brit. Ornithol. Club* 92: 92–93.—Pre-

- viously reported record of *P. alleni* is referable to *P. martinica*, which has now been collected on St. Helena.—F.B.G.
- PARMELEE, D. F. 1972. Second record of Sparrow Hawk on Jenny Lind Island, N.W.T. Canadian Field-Naturalist. 86: 166-167.
- PATTI, S. T. 1972. Brown Towhee—a species new to Kansas. Kansas Ornithol. Soc. Bull. 23: 14.—Up to 2 *Pipilo fuscus* were seen 10 June and photographed 11 June 1972 in Morton County; suspected of nesting.—R.S.
- PECK, G. K. 1972. Birds of the Cape Henrietta Maria region, Ontario. Canadian Field-Naturalist. 86: 333-348.—An annotated list of 94 species, including 45 breeding or suspected breeding. First Ontario nest records of Arctic Loon, Snow Goose, and American Golden Plover.—R.W.N.

#### ECOLOGY AND POPULATION

- ANDERSON, D. R. AND C. J. HENNY. 1972. Population ecology of the Mallard. Part 1, A review of previous studies and the distribution and migration from breeding areas. U. S. Dept. Interior, Bureau of Sport Fisheries and Wildl., Resources Publ. 105.—This is the first in an envisioned six-part series on North America's most abundantly surveyed waterfowl species. The major items in this part are a delineation of breeding grounds (including designations for future reference) and an analysis of banding data, with many maps, tables, and a varied discussion.—J.P.H.
- BATAILLE, J., C. BOURGUIGNON, H. PAGEZY, AND J. TROTIGNON. 1972. Dénombrement de sauvagine et d'Aigles pêcheurs (*Cuncuma vocifer*) sur le lac Édouard (R. D. du Congo). Oiseau 42: 183-192.—Census of aquatic birds of Palearctic and Ethiopian origin and of Ospreys. Includes an annotated systematic list of species and a detailed description of the different habitat types around the lake.—A.C.
- BLAKE, C. H. 1970. Purple Finch populations. IBBA News 42: 16-17.—Compares wing length measurements of Minnesota, Massachusetts, and North Carolina *Carpodacus purpureus*.—D.M.F.
- BLEAKNEY, J. S. 1972. Ecological implications of annual variation in tidal extremes. Ecology 53: 933-938.—Analysis of tidal extremes over a 72-year period in the Bay of Fundy, Canada, indicates that acyclic, dramatic extremes may be an important source of mortality in eulittoral organisms, including young birds. The nesting cycle of Sharp-tailed Sparrows (*Ammodramus caudacuta*) there is closely correlated with the time span between extreme high tides and the probable immersion of nests.—C.R.B.
- BRIEN, Y. 1970. Statut actuel des oiseaux marins nicheurs en Bretagne. 7. Mise au point en 1970: visites récentes et état actuel des effectifs par localité. Ar Vran 3: 167-275.—Status of nesting marine birds and local censuses of population densities.—A.C.
- BRIGGS, J. N., AND J. R. HAUGH. 1973. Habitat selection in birds with consideration of the potential establishment of the Monk Parakeet in North America. Kingbird 23: 3-12.—Discusses mechanisms of habitat selection, and some physical and biological factors that might influence the abundance and distribution of *Myiopsitta monachus*.—M.C.B.
- BROWN, L. H., AND M. K. SELLY. 1973. Abundance of the Pygmy Goose *Nettion auritus* in the Okavango Swamps, Botswana. Ostrich 44: 84.—They outnumbered other anatid species.—R.B.P.
- CALDER, W. A. 1973. Microhabitat selection during nesting of hummingbirds in the Rocky Mountains. Ecology 54: 127-134.—Preliminary examination of nest

- locations of the Broad-tailed (*Selasphorus platycercus*) and Calliope (*Stellula calliope*) Hummingbirds indicate they utilize nests and nest sites that reduce overnight heat loss by radiation, convection, and conduction.—C.R.B.
- CARRIER, W. D., R. D. MALLETTE, S. WILBUR, AND J. C. BORNEMAN. 1972. California Condor survey, 1971. California Fish and Game 58: 327-328.—A minimum of 34 *Gymnogyps californianus* were seen. Fluctuations in numbers reported from 1965 through 1971 seem to be due mainly to weather conditions on count days rather than changes in the condor population structure.—J.J.D.
- CATLING, P. M. 1972. A study of the Boreal Owl in southern Ontario with particular reference to the irruption of 1968-69. Canadian Field-Naturalist 86: 223-232.—A well-documented study based chiefly on the most recent influx but including data on all movements beginning in 1906-07. Winter flights often coincide with flights of the Great Gray and Hawk Owls. Northward migration is late, suggesting these displaced birds don't breed in the following season. Gives much information on winter habits, habitat, and feeding behavior. Meadow voles were the chief prey.—R.W.N.
- CLARK, R. J. 1972. Observations of nesting Marsh Hawks in Manitoba. Blue Jay 30: 43-48.—Marsh Hawks and meadow voles were scarce in the study area in 1968 but in 1969 mice were abundant and 15 active Marsh Hawk nests were counted through the season.—R.W.N.
- COLLIAS, N. E., AND J. K. VICTORIA. 1973. Social facilitation of egg-laying in experimental colonies of a weaverbird. Ecology 54: 399-405.—Experimental colony size does not affect clutch size in the African Village Weaverbird (*Ploceus c. cucullatus*) at the height of breeding season. Number of nests available limits egg-laying more than number of males present. Increased colony size stimulated females to visit male territories and reduced the females' clutch replacement interval. Social facilitation is at its strongest at the beginning and end of the breeding season.—C.R.B.
- CRAMP, S. 1972. The breeding of urban Wood pigeons. Ibis 114: 163-171.—Compares the breeding seasons of urban and rural populations of *Columba palumbus*. Both are regulated by food availability, urban birds feed mainly on bread supplied by humans and are able to breed over the whole period for which they are apparently physiologically capable. Lower predation during the egg stage makes breeding success higher in the urban population.—R.W.S.
- DAVIS, J. 1973. Habitat preferences and competition of wintering juncos and Golden-crowned sparrows. Ecology 54: 174-180.—Habitat preferences of Dark-eyed (Slate-colored) Juncos (*Junco hyemalis*) and Golden-crowned Sparrows (*Zonotrichia atricapilla*) were established through trapping and banding. There was little competition between species for food, water, or cover.—C.R.B.
- DORST, J., AND F. ROUX. 1972. Esquisse écologique sur l'avifaune des monts du Bale, Éthiopie. Oiseau 42: 203-240.—Presents a qualitative survey of the species encountered in each type of habitat. Compares avian communities of Andean and Ethiopian highlands and points out convergences in general features, behavior, and ecological adaptations.—A.C.
- DWERNYCHUK, L. W., AND D. A. BOAG. 1972. Ducks nesting in association with gulls—an ecological trap? Canadian J. Zool. 50: 559-563.—Hatching success was high in ducks breeding in association with Ring-billed and California Gulls on islands in Alberta, but duckling survival declined to zero as gull numbers approached 500 pairs.—R.M.E.
- EDINGTON, J. M., AND M. A. EDINGTON. 1972. Spatial patterns and habitat parti-

- tion in the breeding birds of an upland woods. *J. Anim. Ecol.* 41: 331-357.—Most species in the groups studied are spatially separated from one another or, if not separated, are specialized to obtain different foods. The bulk of the study is an elaboration of the avian aspects of competitive exclusion and niche segregation.—C.R.B.
- ERIKSSON, M., AND J. A. HANSSON. 1973. [The nutcracker incursion 1968.] *Vår Fågelvärld* 32: 11-22.—An estimated 17,000 Slender-billed Nutcrackers *Nucifraga caryocatactes macrorhynchos* invaded Sweden 1968-1969. Discusses the histories of similar incursions and the reasons for this one. (In Swedish, English summary.)—LDEK.L.
- EVANS, R. M. 1972. Some effects of water level on the reproductive success of the White Pelican at East Shoal Lake, Manitoba. *Canadian Field-Naturalist*. 86: 151-153.—Natural fluctuations in water levels may lessen reproductive success, but can also lead to recolonization when conditions are suitable. This may have long-term advantages for species adapted to the situation.—R.W.N.
- FOURNIER, O., AND F. SPITZ. 1972. Quelques données sur les Sarcelles d'hiver (*Anas cressa*) dans le sud de la Vendée. *Oiseau* 42: 170-178.—Explains the local movements of wintering teals that feed at night and criticizes Tamisier's conclusions (1970, *Terre et Vie* 117: 511-562) on the meaning of diurnal gregariousness and nocturnal feeding of teal as being based on too few hours of observations in Vendée.—A.C.
- FRANCIS, W. J. 1973. Blackbird nest placement and nesting success. *Wilson Bull.* 85: 86-87.
- GHEENT, A. W. 1972. A graphic computation procedure for Kendall's tau suited to extensive species-density comparisons. *Amer. Midl. Naturalist* 87: 459-471.—Presents a rapid method of computing this coefficient using an example comparing species-density of 53 bird species in two spruce-fir communities.—G.D.S.
- HAKALA, J. B., R. K. SEEMEL, R. A. RICHEY, J. E. KURTZ. 1971. Fire effects and rehabilitation methods—Swanson-Russian Rivers fires. *Proc., Fire in the northern environment—a symposium, Portland, Oregon, Pacific Northwest Forest and Range Exp. Station*, pp. 87-99.—An 86,000-acre burn in 1969 on Kenai National Moose Range. *Olor buccinator* and cygnets were unaffected by fire surrounding a lake. "Apparently the fire reduced the carrying capacity for grouse (*Canachites canadensis*) broods by 56 percent" 1 year after the fire.—W.W.B.
- HARGROVE, J. W., B. E. MARSHALL, AND D. L. MENTZ. 1972. Observations on the Fiscal Shrike. *Rhodesian Sci. News* 6: 349-351.—Nest site, double broods, and some observations on territory size of about 35 pairs of *Lanius collaris* on the 70-ha University of Rhodesia campus.—F.E.L.
- HARWIN, R. M. 1972. The Rainham Farm bird survey. *Rhodesian Sci. News* 6: 355-357.—Brief notes on status of waterfowl, cranes and the Grey-rumped Swallow.—F.E.L.
- HATCH, D. R. M. 1972. Breeding status of the Forster's Tern in Manitoba. *Blue Jay*, 30: 102-104.—Results of a detailed survey give specific localities for nine marshes used by one or more colonies of 2 to 100 pairs.—R.W.N.
- HENNY, C. J., F. C. SCHEMID, E. M. MARTIN AND L. L. HOOD. 1973. Territorial behavior, pesticides, and the population ecology of Red-shouldered Hawks in central Maryland, 1943-1971. *Ecology* 54: 545-554.—Reproductive performance was found to be correlated with population density. Destruction of habitat has reduced breeding activity in part of the study area. Relatively low pesticide levels in the eggs seem to have little or no effect on reproduction in this popula-

- tion. Presents data on 74 nests and breeding history during the study's 13-year span.—C.R.B.
- HEPPLESTON, P. B. 1972. The comparative breeding ecology of Oystercatchers (*Haematopus ostralegus* L.) in inland and coastal habitats. *J. Anim. Ecol.* 41: 23-51.—Extensive study of the increase in numbers and incidence of inland nesting.—C.R.B.
- HESSE, J. 1971. Introduction à l'étude des stationnements hivernaux en Sologne humide. *Oiseau* 41: 257-282.—Monthly population changes of wintering ducks and their spatial dispersion.—A.C.
- HOCHBAUM, G. S., AND E. F. BOSSENMAIER. 1972. Response of Pintails to improved breeding habitat in southern Manitoba. *Canadian Field-Naturalist*. 86: 79-81.—Natural flooding of hay meadows and grain stubble fields adjacent to a spring staging marsh led to unusually high numbers of breeding Pintails and high reproductive success. A conservative estimate of 149 broods per square mile was based on a 10-mile walking survey. Recommends an extensive program of protection of potentially suitable breeding sites of the kind studied.—R.W.N.
- HOLM, C. H. 1973. Breeding sex ratios, territoriality, and reproductive success in the Red-winged Blackbird (*Agelaius phoeniceus*). *Ecology* 54: 356-365.—Harems are larger and fledging success is greater in cattail than in bulrush territories. Predation was less in cattail nests than in those on bulrushes and may be correlated with greater nest height in cattails.—C.R.B.
- HOLMBRING, J. Å. 1973. [The Great Reed Warbler *Acrocephalus arundinaceus* in Sweden 1971 and a review of its earlier status.] *Vår Fågelvärld*, 32: 23-31.—The countrywide census revealed 22 individuals, most of these in east central Sweden. (In Swedish, English summary.)—LDEK.L.
- JOHNSON, D. H., AND R. E. STEWART. 1973. Racial composition of migrant populations of Sandhill Cranes in the northern plains states. *Wilson Bull.* 85: 148-162.
- KAISER, G. W., L. P. LEFKOVITCH, AND H. F. HOWDEN. 1972. Faunal provinces in Canada as exemplified by mammals and birds: a mathematical consideration. *Canadian J. Zool.* 50: 1087-1104.—Distribution coincides closely to climatic and floristic patterns, but well-defined faunistic provinces are not evident.—R.M.E.
- LUDESCHER, F.-B. 1973. Sumpfmeise (*Parus p. palustris* L.) und Weidenmeise (*P. montanus salicarius* Br.) als sympatrische Zwillingarten. *J. Ornithol.* 114: 3-56.—A detailed study of sympatric populations of the Marsh Tit and Willow Tit; many birds were color-banded and many nests were found. Both species remain paired throughout the year on territories of 5 to 6 ha. Territories overlap interspecifically; conflicts between the two species are short-lived. Foraging behavior is very similar; the only obvious difference in the ecology of the two species is in nest cavity selection and preparation. Clutch size in both species is correlated with size of nest cavity; use of an artificial nest results in larger broods. (English summary.)—H.C.M.
- MACARTHUR, R., J. MACARTHUR, D. MACARTHUR, AND A. MACARTHUR. 1973. The effect of island area on population densities. *Ecology* 54: 657-658.—Bird population densities on the island Cañas, Pearl Archipelago, Panama, are similar to those of nearby Puercos Island even though the former is seven times larger. This is at odds with the Krebs effect (i.e. mouse populations in small enclosures reach higher densities than those outside), although the boundaries in the present case may not be as effective.—C.R.B.
- MACBRIAR, W. N., JR. 1970. Wing measurement variations. *IBBA News* 42: 18-20.—Wing chord measurements of 1,098 Bank Swallows in southern Wis-

- consin were taken in 1968 and 1969. Of 123 repeats, 30.1% showed a  $\pm 1$  mm variation and 8.9% a  $\pm 2$  mm variation; the rest were unchanged.—D.M.F.
- MEYBURG, B.-U. 1973. Observations sur l'abondance relative des rapaces Falconiformes dans le nord et l'ouest de l'Espagne. *Ardeola* 19: 129-150.—Estimation of relative abundance of birds of prey in northern and western Spain, based on counts from a moving car. Includes fine photographs of four species of vultures in flight. (English, Spanish, and German summaries.)—E.E.
- MIKKOLA, H. 1971. Population crash of the Great Grey Owl in Finland in 1971. *Suomen Luonto* 30: 177-179, 213.—This eastern taiga owl is a rare breeder in northern Finland, but in some years, such as 1970 (tables with data from 1955-1970) a population explosion occurs. The subsequent crash is caused by starvation, as a study of 10 carcasses from the spring crash of 1971 shows. (In Finnish, with English summary.)—M.D.F.U.
- MILSTEAD, W. W., AND R. F. MYERS. 1972. Intergeneric competition among three Bangladesian birds. *Amer. Midl. Naturalist* 87: 536-538.—The Common Mynah (*Acridotheres tristis*) exhibited aggressive social behavior towards the Brahminy Mynah (*Sturnus pododarum*) and the Black Drongo (*Dicrurus adsimilis*), resulting in only one mynah species attending a herd of cattle at one time.—G.D.S.

## GENERAL BIOLOGY

- ARHEIMER, O. 1973. [Breeding biology of the Redwing *Turdus iliacus* in subalpine birch forest, Ammarnäs, Swedish Lapland.] *Vår Fågelvärld* 32: 1-10.—A 5-year study. The egg-laying started third week in May, clutch size 5-6 eggs, incubation period 12-13 days, nestling period 9-11 days. Nesting success was 69%. (In Swedish, English summary.)—L.DEK.L.
- BARBOUR, D. Y. 1973. Greater Honeyguide parasitizing Swallow-tailed Bee-eater. *Ostrich* 44: 79.—Second definite record of *Indicator indicator* being reared by *Merops (Dicrocercus) hirundineus*.—R.B.P.
- BARLOW, M. L., P. M. MULLER, AND R. R. SUTTON. 1972. Breeding data on the Spur-winged Plover in Southland, New Zealand. *Notornis* 19: 212-249.—*Lobibyx novaeollandiae* studied from 1965 to 1969. Covers nest areas, nest building, clutch size, incubation, and laying pattern. Also includes data on hatching success, causes of nest loss, chick mortality, hatching weight, growth rate, fledging age, and postfledging dependence.—G.D.S.
- BARTONEK, J. C. 1972. Summer foods of American Wigeon, Mallards, and a Green-winged Teal near Great Slave Lake, N.W.T. *Canadian Field-Naturalist* 86: 373-376.
- BESSELY, J. S. S. 1973. The breeding seasons of birds in the Arusha National Park, Tanzania. *Bull. Brit. Ornithol. Club* 93: 10-20.—Variability among species is correlated with their ecologies.—F.B.G.
- BERNDT, R., AND W. WINKEL. 1972. Über das Nächtigen weiblicher Meisen (*Parus*) während der Jungenaufzucht. *J. Ornithol.* 113: 357-365.—Female Great Tits sleep with the brood, occasionally up to the time of fledging. Female Blue, Coal, Crested, and Marsh Tits stop sleeping with the brood earlier in the cycle. Exchanges of different age young in both Great and Blue Tits has no influence on the length of the period the female sleeps with the brood, unlike the results of a similar study with the Pied Flycatcher. (English summary.)—H.C.M.
- BERTHOLD, P., AND H. BERTHOLD. 1973. Zur Biologie von *Sylvia sarda balearica* und *S. melanocephala*. *J. Ornithol.* 114: 79-95.—Life history data on Marmora's



- and Sardinian Warblers on the Balearic Islands in the Mediterranean off Spain. (English summary.)—H.C.M.
- BOHLEN, H. D. 1973. First specimen of Laughing Gull for Illinois. *Wilson Bull.* 85: 233.
- BORRERO, H. J. I. 1973. Sobre la historia natural de la Viudita, *Fluvicola pica* (Boddaert) (Tyrannidae). *Ardeola* 19: 69-87.—Life history of the Pied Water-tyrant, based on observations in Colombia, including displays, feeding and nesting behavior. (Brief English summary.)—E.E.
- BOSWALL, J. 1973. The nesting of feral pigeons *Columba livia* in trees. *Bull. Brit. Ornithol. Club* 93: 38-39.—A common habit in Buenos Aires.—F.B.G.
- BOSWALL, J. 1972. The South American sea lion *Otaria byronia* as a predator on penguins. *Bull. Brit. Ornithol. Club* 92: 129-132.—Summarizes observations of predation on Rockhopper, Gentoo, and Magellanic Penguins.—F.B.G.
- BRACE, R. K. 1972. Albino [incomplete] Mallard nests at Waterhen Marsh [Saskatchewan]. *Blue Jay*, 30: 95.
- BROOKE, R. K., AND R. D. JEFFREY. 1972. Breeding of *Gypohierax angolensis* in western Angola. *Bull. Brit. Ornithol. Club* 92: 142.—Poor breeding activity may relate to poor supply of freshwater river food.—F.B.G.
- BROWN, R. G. B. 1972. A Robin "colony" in southern Ontario. *Canadian Field-Naturalist*, 86: 294-295.—From 1967 to 1970 about a dozen pairs nested in an orchard in a cluster that shifted from year to year.—R.W.N.
- BURTT, H. E., AND M. L. GILTZ. 1970. The sex-ratio for the Red-winged Blackbird. *IBBA News* 42: 83-85.—In a sample of 68,248 *Agelaius phoeniceus* captured with decoy traps near Columbus and Sandusky, Ohio for 1964-1969, 72% were males. The sex ratio was highest in February-March, lowest in April-May, and declined in either October or November.—D.M.F.
- BURTT, H. E., AND M. L. GILTZ. 1970. Topophilia in grackles. *IBBA News* 42: 203-205.—A sample of over 38,000 icterids banded with decoy traps, 1965-1968 near Columbus, Ohio, showed more returns, repeats, and local recoveries of Common Grackles than of Red-winged Blackbirds, Brown-headed Cowbirds, or Starlings, suggesting a greater site attachment and orientation towards the local area (topophilia) by grackles.—D.M.F.
- CLUNIE, F. 1972. A contribution to the natural history of the Fiji Peregrine. *Notornis* 19: 302-322.—Distribution, description, and past history of *Falco peregrinus nesiotus* in Fiji.—G.D.S.
- COLEMAN, J. D. 1972. The breeding biology of the Rook *Corvus frugilegus* L. in Canterbury, New Zealand. *Notornis* 19: 118-139.—Information on nest sites, construction, eggs, egg size, egg loss, clutch size, nestling mortality, and breeding success.—G.D.S.
- CONWAY, P. 1972. Nesting success of Great Horned Owls using artificial platforms. *Kansas Ornithol. Soc. Bull.* 23: 19.—Describes construction of platforms used successfully by *Bubo virginianus* in 1972.—R.S.
- DA ROSA PINTO, A. A. 1973. The eggs of the White-bellied Barbet *Lybius leucogaster* in Angola. *Ostrich* 44: 79.—Two nests, both in fig trees, had clutches of two.—R.B.P.
- DEKKER, D. 1972. Pigeon Hawk catches bat. *Blue Jay* 30: 256.—Little brown myotis in Edmonton, Alberta, 16 August 1972.
- DEMIANYK, J. W. 1972. Albino Yellow-headed Blackbird. *Blue Jay* 30: 129.
- DEPPE, H. -J. 1972. Einige Verhaltensbeobachtungen an einem Doppelhorst von Seadler (*Haliaeetus albicilla*) und Wanderfalke (*Falco peregrinus*) in Mecklen-

- berg. J. Ornithol. 113: 440-444.—The two species nested in the same tree only a few meters apart over a 3-year period. In two of the years both pairs fledged young. The Peregrines attacked the eagles frequently and viciously in the vicinity of the nest, but not when the eagles were on their nest. (English summary.)—H.C.M.
- DICKINSON, E. C. 1972. Plumage aberrations in *Niltava sundara* Hodgson. Bull. Brit. Ornithol. Club 92: 82-83.—Probable missexing of specimens accounts for some aberrant plumaged specimens, but others may be real cases of plumage reversal. Some female specimens have scattered male feathers.—F.B.G.
- DUFFIN, K. 1973. Barn Swallows use freshwater and marine algae in nest construction. Wilson Bull. 85: 237-238.
- ERSKINE, A. J., AND W. D. McLAREN. 1972. Sapsucker nest holes and their use by other species. Canadian Field-Naturalist. 86: 357-361.—Further evidence that sapsuckers excavate cavities in live aspen trees in early stages of heart rot. In northern forest potential predators are scarce and nest site competitors few.—R.W.N.
- FREEMYER, H., AND S. FREEMYER. 1972. A partially albinistic Red-tailed Hawk. Kansas Ornithol. Soc. Bull. 23: 16.
- FREER, V. M. 1973. Sparrow Hawk predation on Bank Swallows. Wilson Bull. 85: 231-233.
- GARGETT, V., AND D. G. WEBB. 1973. A Marico Flycatcher feeds a Didric Cuckoo. Ostrich 44: 79.—Young *Chrysococcyx caprius* out of the nest foraged by itself and also was fed once by a *Bradornis mariquensis*.—R.B.P.
- GRAUL, W. D. 1973. Possible functions of head and breast markings in Charadriinae. Wilson Bull. 85: 67-70.
- HADDEN, D. 1972. Further notes on the Spotless Crake. Notornis 19: 323-329.—Clutch size and incubation period for several nests of *Porzana tabuensis plumbea* in New Zealand.—G.D.S.
- HAMEL, J. 1972. Pipits, Skylarks and rainfall. Notornis 19: 20-25.—Analysis of bird lists from Otago, New Zealand, suggested that during the breeding season *Anthus novaeseelandiae* is absent from areas with less than 30 inches mean annual rainfall. *Alauda arvensis* is less affected and occurs in summer in areas with rainfall as low as 13 inches.—G.D.S.
- HAUKIOJA, E. 1971. Summer schedule of some subarctic passerine birds with reference to postnuptial molt. Rept. Kevo Subarctic Res. Station 7: 60-69.—Reports the time and duration of the postnuptial molt in 11 passerine species in Finnish Lapland in 1970. Here, at 69.5° N L, several specimens had completed their postbreeding molt before migration; overlap of molt and migration was not confirmed, though it could not be completely rejected in all species. Shortness of favorable season in some cases is overcome by telescoping postnuptial molt into the latter stage of rearing young. Length of molt period is the same as in southern Finland.—M.D.F.U.
- HAYS, C. 1971. Essai sur la biologie de reproduction du Busard cendré dans le Morbihan. Ar Vran 4: 1-15.—Breeding biology of *Circus pygargus*.—A.C.
- HOLMES, R. T. 1972. Ecological factors influencing the breeding season schedule of Western Sandpipers (*Calidris mauri*) in subarctic Alaska. Amer. Midl. Naturalist 87: 472-491.—Studies during summers of 1966 to 1969 of distribution and habitat, summer schedule, molt, and foods of adults and young. Comparisons made of breeding season schedules with *C. alpina*.—G.D.S.

- IRIBARREN, J. J., AND A. RODRIGUEZ-ARBEOLA. 1973. Observaciones en un nido del Aguila Culebrera (*Circaetus gallicus*), Navarra 1972. Ardeola 19: 101-106.—Observations on a nest of a Short-toed Eagle in Spain. Includes photos of adult feeding nestling.—E.E.
- JACKSON, H. D. 1972. The status of the Pied Mannakin, *Lonchura fringilloides* (Lafresnaye) in Rhodesia and its association with the bamboo *Oxytenanthera abyssinica* (A. Richard) Munro. Rhodesia Sci. News 6: 342-348.—The local and fluctuating distribution of this heavy-billed Amadine finch seems to be linked to the sporadic seeding of the bamboo, which has a life cycle from germination to seeding of about 30 years.—F.E.L.
- JACKSON, J. A., M. W. ROBERTS, AND J. E. WRIGHT. 1972. The winter roosts and food habits of Marsh Hawks in east central Mississippi. Mississippi Kite 2: 25-32.
- JEHL, J. R., JR. 1973. Breeding biology and systematic relationships of the Stilt Sandpiper. Wilson Bull. 85: 115-147.
- JOHNSON, T. W. 1973. The wing molt of the Florida Duck. Wilson Bull. 85: 77-78.
- KALE, H. W., II. 1973. House Finch nests abandoned after snow. Wilson Bull. 85: 87.
- KEASEY, M. S., III. 1973. Black Vultures. Pacific Discovery 25 (3): 29-32.—Notes on feeding, distribution, courtship and nesting behavior, and care of young of Black Vultures (*Coragyps atratus atratus*). Includes photographs.—J.T.D.
- KELLOW-WEBB, E. G. E., AND G. DINGLEY. 1972. Lanner Falcon's nest in central Salisbury. Rhodesia Sci. News 6: 358-359.—In an eighth floor window box of an office building. Reports that continuous incubation by both parents began with the fourth of five eggs. Incubation period was probably about 30 days. Three young were in the nest about 5 weeks.—F.E.L.
- KEMP, A. C., AND G. L. MACLEAN. 1973. Nesting of the Three-banded Courser. Ostrich 44: 82-83.—*Rhinoptilus cinctus* buries its eggs with billsful of soil.—R.B.P.
- KIFF, L. F. 1973. New host records for the Bronzed Cowbird. Wilson Bull. 85: 240-242.
- KUSHLAN, J. A. 1973. White Ibis nesting in the Florida Everglades. Wilson Bull. 85: 230-231.—The significance of this note lies in the size of the colony (17,800 nests), location (in a continuous marsh of sawgrass, *Mariscus jamaicensis*, instead of islands of trees), and nest material (primarily of blades of sawgrass, instead of sticks).—H.W.K.

## MIGRATION AND ORIENTATION

- ANON. 1973. Three records set at Hawk Mountain. Pennsylvania Game News 44 (7): 11.—Brief note reports 428 Goshawks, 10 Peregrine Falcons, 23 Bald Eagles were counted during 1972 fall migration at Hawk Mountain in south-eastern Pennsylvania. Also lists numbers of other Falconiformes.—J.T.D.
- BOOTH, W. M. 1972. Diurnal migration of ducks in southwestern Michigan. Jack-Pine Warbler 50: 114-118. Numbers of ducks observed along the shore of Lake Michigan during 1963-1971.—W.T.V.
- BRITTON, P. L. 1973. Seasonal movements of the Black Cuckoo-shrikes *Campephaga phoenicea* and *C. flava*, especially in eastern Africa. Bull. Brit. Ornithol. Club 93: 48.

- BROOKE, R. K. 1972. On the breeding and migratory status of *Apus berliozi bensoni*. Bull. Brit. Ornithol. Club 92: 114.—Breeds in northwestern Somalia and winters on Kenya coast, where it was first collected.—F.B.G.
- DEXTER, R. W. 1970. Further studies of the incursion of Evening Grosbeaks into northeastern Ohio, 1967–1970. IBBA News 42: 170–173.
- ELLIOTT, C. C. H., AND M. J. F. JARVIS. 1972. Fifteenth ringing report. Ostrich 43: 236–295.—Tabulates total numbers of birds ringed and recovered in southern Africa.—R.B.P.
- ELLIOTT, C. C. H., AND M. J. F. JARVIS. 1973. Fifteenth ringing report, continued. Ostrich 44: 34–78.—List of all recoveries of “about 850” ringed birds from July 1968 to June 1970 in southern Africa. Ringing site and recovery site data include degrees and minutes, making the data useful for studies of local movement (in contrast to USF&WS data!). Ringed Plover, Curlew Sandpiper, Terek Sandpiper, Common Sandpiper, Ruff, and Little Stint ringed in South Africa all have been recovered in Europe, mainly in Russia. Pages of recoveries of *Hirundo rustica* include the first from Algeria and Italy, but most continue to be Russian. Of 18 *Passer domesticus* recovered 5 were from over 6 km, one from 110 km.—R.B.P.
- ÉRARD, C., AND F. LARIGAUDERIE. 1972. Observations sur la migration prénuptiale dans l’ouest de la Libye (Tripolitaine et plus particulièrement Fezzan). Oiseau 42: 81–169 and 253–284.—Systematic and well-annotated list of species seen between 22 March and 29 May in Tunisia and Libya. Discusses several features of migration including the flyway, flight altitude, effect of climatic factors and biometric analysis of wing length and weight. Trans-Saharan migration seems to be directed northeasterly at high altitudes. (English summary.)—A.C.
- GUARINO, J. L. 1970. Dakota-banded Yellowhead recovered in Florida. IBBA News 42: 57.—A *Xanthocephalus xanthocephalus* banded in South Dakota recovered at St. Petersburg a year later.—D.M.F.
- HIRALDO, F., C. M. HERRERA, AND J. HIDALGO. 1973. Sobre *Larus minutus* en Andalucía. Ardeola 19: 97–100.—Observations of the Little Gull in Andalucía, southern Spain, since 1958 indicate they appear in higher numbers during cold winters.—E.E.
- HOUSTON, C. S. 1972. Recent Saskatchewan banding of the White Pelican. Blue Jay 30: 24–27.—Analysis and mapping of recoveries of birds banded from 1955 to 1964.—R.W.N.
- HOUSTON, C. S. 1972. Recoveries of Saskatchewan Common Terns. Blue Jay 30: 216–217.
- ROBERTSON, C. J. R., AND F. C. KINSKY. 1972. The dispersal movements of the Royal Albatross (*Diomedea epomophora*). Notornis 19: 289–301.—Recoveries of 122 New Zealand Royal Albatrosses shows nonbreeding birds disperse with prevailing westerly winds.—G.D.S.
- ROSS, G. J. B. 1972. Recovery of a banded Jackass Penguin. Ostrich 43: 230.—*Spheniscus demersus* found dead after 800 km journey in 35 days.—R.B.P.
- SIEGFRIED, W. R. 1972. Discrete breeding and wintering areas of the Waldrapp *Geronticus eremita* (L.). Bull. Brit. Ornithol. Club 92: 102–103.—Asia Minor breeding birds probably winter in northeast Africa, while the Moroccan population winters in an undiscovered part of northwestern tropical Africa.—F.B.G.
- SKEAD, D. M. 1973. Red-backed Shrikes returning to same wintering grounds. Ostrich 44: 81.—Two *Lanius collurio* ringed in Transvaal were retrapped in the next austral summer in the same site.—R.B.P.

- SMITH, G. A. 1973. The spring migration at Derby Hill with remarks on the period 1963-1971. *Kingbird* 23: 13-27.—Raw data for movements of hawks and other species seen from a point on the southeastern shore of Lake Ontario.—M.C.B.
- SMITH, I. D., AND D. A. BLOOD. 1972. Native swans wintering on Vancouver Island over the period 1969-71. *Canadian Field-Naturalist*. 86: 213-216.—In 1970-71 more than a thousand swans, believed to be mostly Trumpeters, wintered in "sheltered saltwater estuaries." About 25% were cygnets. The wintering population appears to be growing, apparently from "increased survival rates and immigration from other wintering areas."—R.W.N.
- TAYLOR, W. K., AND B. H. ANDERSON. 1973. Nocturnal migrants killed at a central Florida TV tower; autumns 1969-1971. *Wilson Bull.* 85: 42-51.
- WEIR, R. D. 1972. Spring migration at Prince Edward Point, Ontario. *Canadian Field-Naturalist*. 86: 3-16.—Daily observations between 9 April and 31 May 1971 tabulated and analyzed with respect to weather.—R. W. N.
- WILLIAMS, L. E., JR. 1973. Spring migration of Common Loons from the Gulf of Mexico. *Wilson Bull.* 85: 230.
- WILLIAMS, T. C., AND H. MIX. 1973. An inexpensive apparatus for recording data from radar Plan Position Indicator displays. *Bird-Banding* 44: 124-125.

## PESTICIDES AND POLLUTION

- ANON. 1973. Tar balls in the Atlantic. *Sea Secrets* 17(2): 12.—National Oceanic and Atmospheric Administration (NOAA) cruise ships report 665,000 square miles of open ocean contaminated by oil globules.—J.T.D.
- BAGLEY, G. E., AND E. CROMARTIE. 1973. Elimination pattern of Aroclor 1254 components in the Bobwhite. *J. Chromatogr.* 75: 219-226.
- BELISLE, A. A., W. L. REICHEL, L. N. LOCKE, T. G. LAMONT, B. M. MULHERN, R. M. PROUTY, R. B. DEWOLF, AND E. CROMARTIE. 1972. Residues of organochlorine pesticides, polychlorinated biphenyls, and mercury and autopsy data for Bald Eagles, 1969, and 1970. *Pesticides Monit. J.* 6: 133-138.—All of the 39 *Haliaeetus leucocephalus* found sick or dead in 13 states contained residues of DDE, dieldrin, PCB's, and mercury. Six contained suspected lethal levels of dieldrin and one of DDE. The major cause of known adult mortality is still illegal shooting, which accounted for 18 deaths.—J.J.M.
- BJERK, J. E., AND G. HOLT. 1971. Residues of DDE and polychlorinated biphenyls in eggs from Herring Gull, *Larus argentatus*, and Common Gull, *Larus canus*, in Norway. *Acta Vet. Scandinavica.*, 12: 429-441.
- BUNYAN, P. J., M. G. TOWNSEND, AND A. A. TAYLOR. 1972. Pesticide-induced changes in hepatic microsomal enzyme systems. Some effects of 1,1-di(p-chlorophenyl)-2,2,2-trichloroethane (DDT) and 1,1-di(p-chlorophenyl)-2,2-dichloroethylene (DDE) in the rat and Japanese Quail. *Chem.-Biol. Interactions* 5: 13-26.—Among the findings most pertinent to environmental effects: residue levels in *Coturnix* were about tenfold greater than those in rats on the same dosage, enzyme activity involved in detoxification is lower in *Coturnix*, DDE is the more potent enzyme inducer, and biochemical changes appear better related to tissue residue levels than dietary levels.—J.J.M.
- BURRAGE, R. H., AND J. G. SAHA. 1972. Insecticide residues in pheasants after being fed on wheat seed treated with heptachlor and 14-C-lindane. *J. Econ. Entomol.* 65: 1013-1017.—Based on relative residue accumulation, the authors suggest lindane is less hazardous to birds and should replace heptachlor.—J.J.M.

- COOKE, A. S. 1973. Shell thinning in avian eggs by environmental pollutants. Environ. Pollution 4: 85-152.—A thorough literature review of the eggshell thinning problem. Discusses a variety of possible causes of shell thinning. Field evidence indicates that shell thinning is caused by residues of the DDT group. Cyclodiene pesticides apparently are important to shell thinning in Great Britain but not in North America. An important review paper.—J.J.D.
- DAHLGREN, R. B., R. L. LINDER, AND W. L. TUCKER. 1972. Effects of stress on pheasants previously given polychlorinated biphenyls. J. Wildl. Mgmt. 36: 974-978. Hen *Phasianus colchicus* partially starved after PCB treatment died sooner than did untreated, partially starved controls. Brain residues in treated, starved birds were considerably higher than in treated, unstarved controls.—J.J.M.
- DAVISON, K. L., AND J. L. SELL. 1972. Dieldrin and p,p'-DDT effect on egg production and eggshell thickness of chickens. Bull. Environ. Contam. Toxicol. 7: 9-18.—Neither 10 or 20 ppm dieldrin nor 100 or 200 ppm DDT affected any of several eggshell characteristics. Authors suggest the apparent conflict with eight cited studies showing positive results in a variety of species could be due to species differences or statistical treatment of data.—J.J.M.
- FLICKINGER, E. L., AND K. A. KING. 1972. Some effects of aldrin-treated rice on Gulf Coast wildlife. J. Wildl. Mgmt. 36: 706-727.—Serious population declines and heavy mortality of Fulvous Tree Ducks have coincided with the widespread use of aldrin-treated rice since 1960. Residues in dead birds and feeding tests indicate that *Dendrocygna bicolor* is more sensitive to aldrin than are other ducks. High mortality of migrating Blue-winged Teal and Snow Geese was also recorded on treated fields in 1971. Presents specific changes in pesticide practices that would reduce wildlife damage without decreasing rice yields.—J.J.M.
- FRIEND, M., M. A. HAEGELE, AND R. WILSON. 1973. DDE: interference with extra-renal salt excretion in the mallard. Bull. Environ. Contam. Toxicol. 9: 49-53.
- GASSAWAY, W. C., AND I. O. BUSS. 1972. Zinc toxicity in the Mallard Duck. J. Wildl. Mgmt. 36: 1107-1117.
- GRESS, F., R. W. RISEBROUGH, D. W. ANDERSON, L. F. KIFF, AND J. R. JEHL, JR. 1973. Reproductive failures of Double-crested Cormorants in southern California and Baja California. Wilson Bull. 85: 197-208.
- GOCHFELD, M. 1973. Effect of artefact pollution on the viability of seabird colonies on Long Island, New York. Environ. Pollution 4: 1-6.—Describes mortality caused by various forms of human trash and the effect it has on seabird colonies.—J.J.D.
- HAEGELE, M. A., AND R. H. HUDSON. 1973. DDE effects on reproduction of Ring Doves. Environ. Pollution 4: 53-57.—Captive *Streptopelia risoria* fed DDE had smaller clutches, thinner eggs, and took longer to re-nest than did control birds. J.J.D.
- HENRY, C. J. 1972. An analysis of population dynamics of selected avian species with special reference to changes during the modern pesticide era. U. S. Fish Wildl. Serv. Wildl. Res. Rept. 1: 1-99.—An attempt was made to construct population dynamics models for 16 species and compare population parameters and trends over time. For several species, including most passerines examined, insufficient basic life history data were available to construct complete models, but it was determined that postfledging mortality has not increased in any of the species since 1945. Mortality has decreased in several larger species, perhaps because of decreased shooting. Lower post 1945 recruitment rates were found for

- the Brown Pelican, Osprey, Cooper's Hawk, Red-shouldered Hawk, and American Kestrel and "in all species for which comparison could be made, the recent reproductive performance was correlated to changes (or lack of changes) in eggshell thickness." Also discusses the association of pesticide residues with eggshell thinning and population declines.—J.J.M.
- HJERTAAS, D. 1972. Pine Grosbeak affected by oil spill. *Blue Jay* 30: 71-72.
- HOLMES, M. 1973. Oil and penguins don't mix. *Natl. Geogr.* 143: 384-397.—Closing of Suez Canal and subsequent re-routing of supertankers around South Africa threatens Dassen Island population of Jackass Penguins (*Spheniscus demersus*) with possible oil contamination.—J.T.D.
- JEFFERIES, D. J., M. C. FRENCH, AND B. E. OSBORNE. 1971. The effect of p,p-DDT on the rate, amplitude and weight of the heart of the pigeon and Bengalese Finch. *Brit. Poultry Sci.* 12: 387-399.—Further evidence that DDT causes hyperthyroidism at low dosage and hypothyroidism at high dosages in pigeons and hyperthyroidism at all dosages in the Bengalese Finch.—J.J.M.
- JEFFERIES, D. J., AND J. L. F. PARSLow. 1972. Effect of one polychlorinated biphenyl on size and activity of the gull thyroid. *Bull. Environ. Contam. Toxicol.* 8: 306-310.
- JEHL, J. R., JR. 1970. Is thirty million years long enough? *Pacific Discovery* 23 (1): 16-23.—Reports on decrease in Brown Pelican population of California Islands due to DDT and other pesticides.—J.T.D.
- KOEMAN, J. H., R. H. HADDERINGH, AND M. F. I. J. BIJLEVELD. 1972. Persistent pollutants in the White-tailed Eagle (*Haliaeetus albicilla*) in the Federal Republic of Germany. *Biol. Conserv.* 4: 373-377.—Breeding success in this small population has been low in recent years. Analysis of eggs suggests that DDE has caused high embryo mortality.—J.J.D.
- KOPISCHKE, E. D. 1972. The effect of 2,4-D and diesel fuel on egg hatchability. *J. Wildl. Mgmt.* 36: 1353-1356.—Spraying pheasant and chicken eggs with normal use concentrations of 2,4-D produced no effect on hatchability, chick survival, or deformity. No eggs sprayed with diesel oil hatched.—J.J.M.
- KREITZER, J. F. 1972. The effect of embryonic development on the thickness of eggshells of Coturnix Quail. *Poultry Sci.* 51:1764-1765.—Length of incubation should be considered in studies on the effects of pollutants on eggshell thickness. In this study, eggshell were significantly thinner in fully incubated eggs than in unincubated eggs. Eggs in museum collections (often used for baseline values) were usually collected in early incubation.—J.J.M.
- LINCER, J. L., AND D. B. PEAKALL. 1973. PCB pharmacodynamics in the Ring Dove and early gas chromatographic peak diminution. *Environ. Pollution* 4: 59-68.—The level of PCB in the eggs of captive *Streptopelia risoria* fed a diet containing 10 ppm PCB increased linearly to about 80 ppm after 105 days. The level of PCB in the birds' tissue also increased markedly but when the birds were starved, mortality apparently was not due to PCB mobilization.—J.J.D.
- MESSICK, J. P. 1972. Organochlorine residues in wild Ring-necked Pheasants from southwestern Idaho. *Bull. Environ. Contam. Toxicol.* 8: 356-360.
- PARSLow, J. L. F., AND D. J. JEFFERIES. 1972. Elastic thread pollution of Puffins. *Marine Pollution Bull.* 3: 43-45.
- PARSLow, J. L. F., D. J. JEFFERIES, AND M. C. FRENCH. 1972. Ingested pollutants in puffins and their eggs. *Bird Study* 19: 18-33.—A preliminary, inconclusive study into the possible relationships between organochlorine and heavy metal pollutants and the population decline of *Fratercula arctica*.—J.J.M.

- PILLMORE, R. E., E. L. FLICKINGER, AND M. L. RICHMOND. 1971. Forest spraying of zectran and its safety to wildlife. *J. Forestry*. 69: 721-727.—This possible DDT substitute for spruce budworm control had no apparent harmful effect on bird populations in controlled 20-acre plot comparisons.—J.J.M.
- PLATONOW, N. S., AND H. S. FUNNEL. 1972. The distribution and some effects of polychlorinated biphenyls (Arochlor 1254) in cockerels during prolonged feeding trial. *Canadian J. Comp. Med.* 36: 89-93.
- POPE, G. G., AND P. WARD. 1972. The effects of small applications of an organo-phosphorous poison, fenthion, on the weaverbird, *Quelea quelea*. *Pesticide Sci.* 3: 197-205.—Research conducted to determine the effectiveness of fenthion as an avicide. The results are of broader interest because fenthion is also used as an insecticide.—J.J.M.
- SCHAFFER, E. W. 1972. The acute oral toxicity of 369 pesticidal, pharmaceutical and other chemicals to wild birds. *Toxicol. Appl. Pharmacol.* 21:315-330.—Comparative data indicate Red-winged Blackbirds are generally more sensitive than Starlings. Both avian species are more sensitive than the rat.—J.J.M.
- SELL, J. L., K. L. DAVISON, AND K. B. POONACHE. 1972. Decreased aniline hydroxylase activity in Japanese Quail due to dietary DDT. *J. Agr. Food Chem.* 20: 553-557.
- THILL, R. E., K. E. SEVERSON, AND Y. A. GREICHUS. 1972. Effects of aldrin on young pheasants under semi-natural conditions. *Bull. Environ. Contam. Toxicol.*, 7: 188-192.—No differences in mortality of *Phasianus colchicus* were found between a control plot and a plot with 2 lb/Ac aldrin disked into the soil 1 month prior to the introduction of experimental chicks.—J.J.M.
- VAN VELZEN, A. C., W. B. STILES, AND L. F. STICKLE. 1972. Lethal mobilization of DDT by cowbirds. *J. Wildl. Mgmt.* 36: 733-739.—*Molothrus ater* surviving initial contamination showed higher mortality than controls when later subjected to partial starvation on uncontaminated feed. Delayed mortality occurred even when food was restricted after 4 months on uncontaminated feed. Mortality was associated with the shift of DDT residues from the diminished fat stores to the brain. The authors conclude that normally sublethal DDT residues may cause death of birds in nature when fat is mobilized during migration, reproduction, cold weather, or food shortages.—J.J.M.
- VERMEER, K., AND R. W. RISEBROUGH. 1972. Additional information on egg shell thickness in relation to DDE concentrations in Great Blue Heron eggs. *Canadian Field-Naturalist.* 86: 384-385.—Further mathematical and computer analysis lends support to the conclusion that DDE is the cause of shell thinning in this species.—R.W.N.
- WHITEHEAD, C. C., AND R. J. PETTIGREW. 1972. The subacute toxicity of 2,4-dichlorophenoxyacetic acid and 2,4,5-trichlorophenoxyacetic acid to chicks. *Toxicol. Appl. Pharmacol.* 21: 348-354.
- WHITEHEAD, C. C., A. G. DOWNING, AND R. J. PETTIGREW. 1972. The effects of lindane on laying hens. *Brit. Poultry Sci.* 13: 293-299.—Dietary levels of about 100 ppm decreased egg production but did not cause eggshell thinning.—J.J.M.
- ZITKOV, V., AND P. M. K. CHOI. 1972. PCB and p,p'-DDE in eggs of cormorants, gulls, and ducks from the Bay of Fundy, Canada. *Bull Environ. Contam. Toxicol.* 7: 63-64. High levels were found in eggs of *Phalacrocorax auritus*, *Larus argentatus*, and *Anas rubripes*. Highest levels were in eggs of cormorants, which have PCB levels from 44 to 110 times above those in local fish.—J.J.M.



## PHYSIOLOGY

- ADAMS, J. H., AND S. J. DIMOND. 1971. Influence of light on the time of hatching in the domestic chick. *Anim. Behav.* 19: 226-229.—Light could trigger the hatching process after the 17th day when the visual system of the chick begins to function.—F.E.L.
- BORCHELT, P. L., J. EYER, AND D. S. MCHENRY. 1973. Dustbathing in Bobwhite Quail (*Colinus virginianus*) as a function of dust deprivation. *Behav. Biol.* 8: 109-114.—Suggests that dustbathing functions to remove excessive lipids from the feathers.—H.C.M.
- BRADLEY, E. L., AND W. N. HOLMES. 1972. The role of the nasal glands in the survival of ducks (*Anas platyrhynchos*) exposed to hypertonic saline drinking water. *Canadian J. Zool.* 50: 611-617.—Plasma ion concentrations increased, body weight declined, and weakness and torpidity ensued when birds lacking supra-orbital glands were given only hypertonic water to drink.—R.M.E.
- BUDGEELL, P. 1971. Behavioural thermoregulation in the Barbary Dove (*Streptopelia risoria*). *Anim. Behav.* 19: 524-531. Doves trained to influence their environmental temperature by pecking would work to increase the temperature, probably when it fell below the thermoneutral range.—F.E.L.
- CANNONN, R. E., AND E. A. SALZEN. 1971. Brain stimulation in newly-hatched chicks. *Anim. Behav.* 19: 375-385.
- CASE, R. M. 1973. Bioenergetics of a covey of Bobwhites. *Wilson Bull.* 85: 52-59.
- ERPINO, M. J. 1973. Histogenesis of atretic follicles in a seasonally breeding bird. *J. Morphol.* 139: 239-250.—Atretic cysts show an annual cycle in a nonmigratory population of *Aphelocoma coerulescens*, being most abundant immediately after cessation of breeding. Describes the atretic process, and considers a possible secretory role for the atretic follicles.—A.S.G.
- HINSCH, K. 1972. Akustische Gesangsanalyse beim Fitis (*Phylloscopus trochilus*) zur Untersuchung der Rolle der Luftröhre bei der Stimmerzeugung der Singvögel. *J. Ornithol.* 113: 315-322.—Acoustic analysis of the song and anatomy of the Willow Warbler suggests that the trachea acts as a modulator of the vibrations the syrinx produces. (English summary.)—H.C.M.
- HUGHES, M. R. 1972. The effect of salt gland removal on cloacal ion and water excretion in the growing kittiwake, *Rissa tridactyla*. *Canadian J. Zool.* 50: 603-610.—Cloacal excretion usually accounted for no more than about half of the Na<sup>+</sup>, K<sup>+</sup>, and Cl<sup>-</sup> ingested by control and experimental young in which the supraorbital glands were removed. Some other, undetermined extrarenal source of salt secretion is indicated.—R.M.E.
- IVACIC, D. L., AND R. F. LABISKY. 1973. Metabolic responses of Mourning Doves to short-term food and temperature stresses in winter. *Wilson Bull.* 85: 182-196.
- JERRETT, S. A., AND W. R. GOODGE. 1973. Evidence for amylase in avian salivary glands. *J. Morphol.* 139: 27-46.—Biochemical assay and starch substrate slide technique reveal significant amylolytic activity (comparable to rat) in four glands of *Passer domesticus*, but none in glands of *Gallus gallus* and *Meleagris gallopavo*. The difference may be due to the possible action of plant amylase during long-term storage in the crops of the gallinaceous species. Gross and histological descriptions of the glands.—A.S.G.
- JUNOR, F. J. R. 1972. Estimation of the daily food intake of piscivorous birds. *Ostrich* 43: 193-205.—Fish intake by birds at a fisheries research institute was measured by weighing young birds reared by hand (*Anhinga rufa*, *Phala-*

- crocorax africanus*, *P. lucidus*, *Ardea cinerea*, *A. goliath*, *Gorsachius leuconotus*, *Butorides striatus*). Growth rates were similar to those of birds reared in the nest by their parents. Some young flew back to their foster homes each night, allowing estimates of daily intake of food by change in weight. This amounted to about 16% of their own body weight.—R.B.P.
- McNAB, B. K. 1973. Body-weight, energetics and the determination of body temperature. *J. Exp. Biol.* 58: 277-280.—A reply to criticisms by Calder and King (*J. Exp. Biol.* 56: 775-780).—A.S.G.
- MEIER, A. H., T. N. TROBEC, H. G. HAYMAKER, R. MACGREGOR III, AND A. C. RUSSO. 1973. Daily variations in the effects of handling of fat storage and testicular weights in several vertebrates. *J. Exp. Zool.* 184: 281-287.—Periodic handling for 10 days was sufficient stimulus to effect marked changes in fat stores of a fish (*Fundulus chrysotus*), a lizard (*Anolis carolinensis*), a quail (*Coturnix c. japonica*), and a mouse (*Mus musculus*) and testicular weights in *Anolis* and *Mus*. Presence and direction of the effect depend on time of the disturbance with respect to the daily photoperiod.—A.S.G.
- PIDDINGTON, R. 1973. Glutamine synthetase in the avian diencephalon. *J. Exp. Zool.* 184: 167-175.—Describes development of the normal GS pattern in the diencephalon of chicks. Hydrocortison promotes GS levels *in vitro* just as in cultures of retina, tectum, and cerebrum. The effects are not restricted to the nucleus rotundus or visual pathway, and the particular role of GS in the diencephalon remains obscure.—A.S.G.
- ORCUTT, F. S., JR. 1971. Effects of oestrogen on the differentiation of some reproductive behaviours in male pigeons (*Columba livia*). *Anim. Behav.* 19: 277-286.—Early treatment with oestrogen feminizes the reproductive behavior of male pigeons.—F.E.L.
- RASMUSSEN, G., AND R. BRANDER. 1973. Standard metabolic rate and lower critical temperature for the Ruffed Grouse. *Wilson Bull.* 85: 223-229.
- SIMONS, J. A., AND E. J. BOELL. 1971. Normal and induced synthesis of  $\delta$ -aminolevulinic acid synthetase in developing chick liver. *J. Exp. Zool.* 178: 287-292.—Activity begins and rises abruptly to a peak just before hatching, then declines to adult levels. Either DDC or hypoxia is stimulatory.—A.S.G.
- UNTERGASSER, G., AND J. S. HAYWARD. 1972. Development of thermoregulation in ducklings. *Canadian J. Zool.* 50: 1243-1250.—Embryos are essentially poikilothermic. During the first day after hatching thermoregulation in Mallard and scaup becomes well-established as peak metabolic rates increase threefold over embryonic levels.—R.M.E.
- WALKER, J. M., AND R. J. BERGER. 1972. Sleep in the domestic pigeon (*Columba livia*). *Behav. Biol.* 7: 195-203.—Electroencephalogram, neck-electromyogram and electrooculogram of sleep and wakefulness. Pigeons slept 42% of 24 hours, Burrowing Owls 60%. REM (rapid eye movement) sleep constituted 7% of total sleep in pigeons.—H.C.M.
- WEBSTER, D. M., AND V. D. HOLLARD. 1973. A safe and simple injection anesthetic for birds. *Physiol. and Behav.* 10: 831.—A combination of chlormethiazole and ketamine hydrochloride injected into pectoral muscles; only two deaths attributable to the drugs among 85 pigeons tested.—J.A.J.

## TAXONOMY AND PALEONTOLOGY

- BENSON, C. W., AND M. P. STUART IRWIN. 1972. Variation in tarsal and other measurements in *Otis denhami*, with some distributional notes. *Bull. Brit.*

- Ornithol. Club, 92: 70-77.—Montane populations of *O. d. jacksoni* have short tarsi. First records of species from Botswana and western Rhodesia reported here may be of nonbreeding visitors that coexist with *O. kori*.—F.B.G.
- BENSON, C. W., AND R. WAGSTAFFE. 1972. *Porzana olivieri* and *Limnocorax flavirostris*, a likely affinity. Bull. Brit. Ornithol. Club 92: 160-164.—The little known rail *Porzana olivieri* is recorded from southwestern Madagascar for the first time. It is probably most closely related to the African *flavirostris* and convergent with the Asiatic *P. bicolor*.—F.B.G.
- CLANCY, P. A. 1972. The austral races of *Serinus sulphuratus* (Linnaeus). Bull. Brit. Ornithol. Club 92: 169-171.—Reexamination of South Africa populations confirms validity of four races, *sulphuratus*, *wilsoni*, *languens*, and *?shelleyi*. Particulars for each are given.—F.B.G.
- DIESSELHORST, G., AND J. MARTENS. 1972. Hybriden von *Parus melanolophus* und *Parus ater* im Nepal-Himalaya. J. Ornithol. 113: 374-390.—Eight hybrids were collected. The zone of overlap between the two semispecies seems to be narrow and partial isolating mechanisms appear to exist. Color plate. (English summary.)—H.C.M.
- DOWSETT, R. J. 1972. The type locality of *Campethera cailliautii fuelleborni*. Bull. Brit. Ornithol. Club 92: 81-82.—Should be "near Lumbira (= Old Langenburg), northeast shore of Lake Malawi (= Lake Nyasa), Tanzania at about 9° 36' S, 34° 10' E." Mentions the problem of unstable geographical names in Africa.—F.B.G.
- DOWSETT, R. J. 1972. Geographical variation in *Pseudhirundo griseopyga*. Bull. Brit. Ornithol. Club 92: 97-100.—Lumps *P. g. gertrudis* with *P. g. griseopyga* and *P. g. liberiae* with *P. g. melbina* and considers *Hirundo andrewi* a race of *griseopyga*. Recommends *Pseudhirundo* be maintained as a monotypic genus.—F.B.G.
- DOWSETT, R. J. 1972. Is the bulbul *Phyllastrephus placidus* a good species? Bull. Brit. Ornithol. Club 92: 132-138.—Yes. Ecologically distinct from *fischeri* and *cabanisi*, as well as morphological and behavioral differences.—F.B.G.
- DOWSETT, R. J. 1972. Races of the lark *Mirafra africana* in the Tanganyika-Nyasa montane group. Bull. Brit. Ornithol. Club 92: 156-159.—Detailed comparison of the two montane races, *M. a. nyikae* and *M. a. nigrescens*.—F.B.G.
- ENDES, M. 1972. A revised description of the Hungarian race of the Short-toed Lark *Calandrella brachydactyla* (Leisler). Bull. Brit. Ornithol. Club 92: 149-151.—Stresses distinctiveness of *C. b. hungarica*.—F.B.G.
- FARKAS, T. 1972. *Copsychus albospecularis winterbottomi*, a new subspecies from the southeast of Madagascar. Ostrich 43: 228-230.—Type from Ivohibe, (Prefecture de Fianarantsoa) collected in 1929. Differs from its nearest relative *C. a. inexpectatus* in having "extensive white spots on the three outer pairs of rectrices . . . and the outer webs of the low longest secondaries are also white." Total of two specimens of the new form were examined.—R.B.P.
- JARVIS, M. J. F. 1972. The systematic position of the South African Gannet. Ostrich 43: 211-216.—A few quantitative differences in behavior were noted for *Sula bassana* and *S. (bassana) capensis*, and the author suggests they are distinct species.—R.B.P.
- KEMP, A. C., AND G. L. MACLEAN. 1973. Neonatal plumage patterns of Three-banded and Temminck's Coursers and their bearing on coursers genera. Ostrich 44: 80-81.—Diagrams and compares downy plumage of *Cursorius temminckii* and

- Rhinoptilus cinctus*. Downy young of three "*Rhinoptilus*" species are distinct, and authors conclude these may consist of three separate genera.—R.B.P.
- NIEBOER, E. 1973. Geographical and ecological differentiation in the genus *Circus*. Ph.D. thesis, Free University of Amsterdam, 104 pp.—The author recognizes 10 species in this worldwide genus. The paper is based mainly on mensural data and coloration of museum specimens and data in the literature. Species are contrasted or related on the basis of formulas of the flight apparatus (wing and tail) and of the prey apparatus (toe and claw measurements and formulas and beak measurements)—a sound ecological approach in systematics! Discusses in detail the contrasted use of these functional entities in related or sympatric harriers. Nieboer considers sexual dichromatism to be a derived adaptation to open country life where the nest must be defended constantly from predators and, thus, the cryptic color of the female is highly adaptive. On the other hand, the male, who does most of the foraging during the nesting season, is more or less cryptically colored for its aerial hunting, similar to certain kites and gulls. *C. cyaneus hudsonicus*, the North American Marsh Hawk, shows the greatest color and preying-apparatus dimorphism and it is the only Holarctic harrier that lives without congeneric overlap. Size reversal is thought to be a consequence of the reversed role of sexes in territory defense. Advances a theory toward geographic origin of most harriers that seems sound. The origin of the whole genus is still uncertain. A very stimulating paper.—M.D.F.U.
- PAYNTER, R. A., JR. 1972. Notes on the furnariid *Automolus (Hyalocryptus) erythrocephalus*. Bull. Brit. Ornithol. Club 92:154-155.—Reports on a new specimen and habits of the little known species, that may be most closely related to *A. rectirostris*.—F.B.G.
- PHILLIPS, A. R. 1973. On the supposed genus *Petrochelidon*. Bull. Brit. Ornithol. Club 93: 20.—Contrary to R. K. Brooke, considers *Petrochelidon* inseparable from *Hirundo*.—F.B.G.
- SALOMONSEN, F. 1972. New pigeons from the Bismarck Archipelago (Aves, Columbidae). Steenstrupia 2: 183-189.—Describes the new subspecies *Gallicolumba beccarii masculina* (type locality: Nissan Island) and *Reinwardtoena browni solitaria* (type locality: Rambutyo Island, Admiralty Islands). Remarks include a short discussion of evolutionary factors relating to these forms.—J.P.H.
- SIBLEY, C. G. 1973. The relationships of *Picathartes*. Bull. Brit. Ornithol. Club 93: 23-25.—No longer an enigma—clearly a babbler close to *Turdoides*.—F.B.G.
- VAURIE, C., J. S. WESKE, AND J. W. TERBORGH. 1972. Taxonomy of *Schizoeca fuliginosa* (Furnariidae), with description of two new subspecies. Bull. Brit. Ornithol. Club 92: 142-144.—Describes *S. f. vilcabambae* from Cuzco, Peru, and *S. f. ayacuchensis* from Ayacucho, Peru.—F.B.G.
- VERMEIJ, G. J. 1973. Biological versatility and earth history. Proc. Natl. Acad. Sci. 70: 1936-1938. Examples from plant and animal groups indicate increase in versatility of form among taxa appearing at successively younger stages in the fossil record. Those with greater potential versatility have tended to replace those less adaptable. Greater versatility allows for greater integration of structures, and increase in size of the potential adaptive zone.