

not to be told which pictures represent captive birds; it seems unfair to the photographers whose pictures were taken in the wild. Most of the in-captivity photographs can be identified as such by close study. Also, most of them are fairly good and probably often represent species not otherwise photographed. One notable failure, however, is the full-page black and white photograph devoted to two frazzled, cage-worn Quetzals, which scarcely live up to the text's justifiable billing of this species as "as gorgeous as a bird of paradise." The color photos by H. Ruhe and T. Roth all seem to be of captive, often disheveled, birds. North American and European birds are represented, as one would expect, by usually excellent photographs taken by several dozen skilled photographers. On the other hand, the numerous good pictures of wild birds from South America, Africa, Australia, and Asia are pleasant surprises.

All in all, Gilliard's book is one which amateur and professional bird students will find useful and authoritative.

Many persons still feel that any book costing over \$5.00 is expensive. Gradually, however, it is becoming inescapably clear that *all* printing is now expensive, and colored plates especially so. Viewed this way, the price of \$12.50 for this lavishly illustrated, handsomely produced book seems reasonable. There is also a British edition, printed in the United States and published by Hamish Hamilton Ltd., London, which is identical in text and plates to the Doubleday book but has a cheaper, less sturdy binding. The price of the British edition is £3 10s., or \$9.80.—HARRISON B. TORDOFF.

INDEX TO VOLUME 71, 1959

This index includes, in addition to names of species and authors, references to the following topics: behavior, food habits, fossils, hybrids, measurements, migration, molts and plumages, nesting, parasitism, physiology, populations, predation, taxonomy, voice, and weights. Also included are references of biological significance to mammals, reptiles and amphibians. Names of new forms described in this volume are printed in **boldface** type.

- Abbott, Jackson M., A hybrid White-crowned × White-throated Sparrow, 282–283
- Accipiter cooperii*, 97, 169
gentilis, 169, 194
- Actitis macularia*, 170, 211, 376
- Agapornis*, 47
- Agelaius*, 172
phoeniceus, 37, 170, 212, 377
- Aimophila aestivalis*, 377
- Aix*, 51–52, 165, 168
galericulata, 50, 160, 165
sponsa, 50, 52, 165, 184–186, 211, 262
- Ajaja ajaja*, 184–185
- Amadon, Dean, see Parkes, Kenneth C. and—
- Amazona*, 49
- Ammodramus savannarum*, 141, 212, 377
- Ammospiza caudacuta*, 213
maritima, 213
- Amphibians
Rana catesbeiana, 186
- Anas*, 46, 51–52, 165, 168
acuta, 185
carolinensis, 185
clypeata, 165
cyanoptera, 165
diazi, 184
discors, 37, 165, 185–186
fulvigula, 185
platyrhynchos, 51, 262, 346
querquedula, 165
strepera, 165
- Anatomy, 93–94, 178–186, 250, 267–277
- Anhinga, 185
- Anhinga anhinga*, 185–186
- Aplonis*, 94
- Aramus guarauna*, 185–186
- Archilochus alexandri*, 97
colubris, 211, 376
- Ardea goliath*, 183
herodias, 183, 185, 214
h. herodias, 183
h. wardi, 183

- occidentalis*, 183
Arenaria interpres, 214
Artamella, 94
Asio wilsonianus, 97
Auriparus flaviceps, 89
Aythya, 51, 184
affinis, 164, 185
americana, 262
collaris, 184-185, 214
erythrophthalma, 184
marila, 213
 Behavior, 37-39, 46-53, 73-85, 95-96, 107-168, 177, 188-191, 205-206, 254-266, 277-278, 308, 310, 313-336, 383-388
 Behle, William H., The bird life of Great Salt Lake, reviewed, 103
 Berger, Andrew J., Leg-muscle formulae and systematics, 93-94; see Van Tyne, Josselyn and——
 Bittern, American, 185
 Least, 37
 Blackbird, 172
 European, 176
 Redwinged, 37, 42, 170, 212, 216, 377-378
 Rusty, 215
 Bleitz, Don, Yellow-breasted Chat parasitized by tick, 95
 Bluebird, 146
 Eastern, 192-193, 212, 216, 377
 Bobolink, 170, 210, 212, 216, 230-232
 Bobwhite, 337-343, 376
Bombycilla cedrorum, 75, 377
Bonasa, 178
ceres, 178
umbellus, 172, 178, 182
 Borror, Donald J., Variation in the songs of the Rufous-sided Towhee, 54-72
Botaurus lentiginosus, 185
Branta, 344
canadensis, 214, 344-346
c. canadensis, 346
c. hutchinsii, 346
c. interior, 345-346
c. leucopareia, 346
c. minima, 346
c. moffitti, 346
c. parvipes, 346
c. taverneri, 346
 Brown, Bruce A., see Gullion, Gordon W. and——
Bubalornis, 275
Bucephala albeola, 159, 165-166, 213
clangula, 159, 165-167, 213
islandica, 159, 162, 165-167, 184
 Budgerigars, 49
 Bufflehead, 159-168, 213
 Bunting, Indigo, 208, 212, 217, 377
 Snow, 95, 146, 148, 213
 Bushtit, Common, 97
Buteo jamaicensis, 86, 185
lineatus, 376
platypterus, 211
Butorides virescens, 211, 376
Cairina moschata, 50, 262
Calidris canutus, 214
Calypte costae, 88
Campephilus principalis, 324
Camptorhynchus labradorium, 184
Campylorhynchus brunneicapillum, 89
 Canary, 146
Caprimulgus carolinensis, 30
vociferus, 30, 211, 376
 Cardinal, 185, 281, 377
Carduelis carduelis, 146
Carpodacus mexicanus, 91
Casmerodius albus, 157, 185
Cassidix mexicanus, 42
 Catbird, 170, 191, 210-211, 216, 231, 376
Cathartes aura, 86
Catharus, 46
fuscescens, 177
Centurus aurifrons, 107-123
a. aurifrons, 108
a. harpaceus, 109
a. incanescens, 108
carolinus, 107-123, 323, 376
uropygialis, 88
Certhia familiaris, 213
 Chaffinch, 147
Chaetura pelagica, 211, 376
Chamaethlypis, 275
 Chamberlain, J. L., A nesting colony of Forster's Terns and Black Skimmers in southwestern Louisiana, 283-284
Charadrius semipalmatus, 214
vociferus, 211, 282, 376
wilsonia, 313
 Chat, Yellow-breasted, 95, 212, 217, 377, 379
 Chickadee, Black-capped, 281
 Carolina, 376
 Chicken, Greater Prairie, 179
 Lesser Prairie, 179
Chlidonias niger, 20
Chloris chloris, 147
Chondestes grammacus, 250, 277, 377
Chordeiles acutipennis, 30
minor, 19, 211
Ciconia maltha, 185
Circus cyaneus, 376
Clangula hyemalis, 213
Coccyzus americanus, 211, 376
erythrophthalmus, 211, 376
 Cochran, William W., see Graber, Richard R. and——
Colaptes, 94
auratus, 75, 170, 211, 323, 376
Colinus virginianus, 337, 376
Columba livia, 170, 267
Columbigallina passerina, 88
Contopus virens, 75, 211, 376
 Conway, William G., The behavior of two captive ostriches at a burning leaf pile, 188-189

- Coot, 185
Coracia, 274
Coragyps atratus, 185
Cormorant, Double-crested, 185
Corvus, 94, 275
 brachyrhynchus, 172, 376
 corax, 97, 275
 ossifragus, 185-186, 211, 315
Cowbird, Brown-headed, 48, 91, 170, 212, 216, 377
 Glossy, 176
Crane, Crowned, 188
 European, 188
 Sandhill, 185
Creeper, Brown, 213
Crocethia alba, 214
Crow, Common, 172-174, 376
 Fish, 185, 211, 315
Cuckoo, 48, 230-231
 Black-billed, 211, 217, 376, 379
 Yellow-billed, 209, 211, 217, 376
Cuculus canorus, 48
Cyanocitta cristata, 170, 172, 193, 317, 323, 376
Davis, David E., Observations on territorial behavior of Least Flycatchers, 73-85
Delacour, Jean, The Waterfowl of the World, reviewed, 288-289
Delichon urbica, 259
Demigretta schistacea, 153
Dendrocopos, 94, 186
 borealis, 185-186
 pubescens, 190, 376
 villosus, 170, 376
Dendrocygna bicolor, 33
Dendroica caerulescens, 215
 castanea, 215
 cerulea, 377
 coronata, 213
 discolor, 212, 377
 dominica, 377
 fusca, 215
 magnolia, 215
 palmarum, 99, 215
 p. palmarum, 99
 pensylvanica, 75, 212
 petechia, 212, 377
 pinus, 215
 striata, 215
 virens, 212
Dendrotyx macroura, 307, 309, 311
 m. diversus, 312
Dichromanassa rufescens, 153-157
Dickcissel, 230, 377-379
Dilger, William C. and Paul A. Johnsgard, Comments on "species recognition" with special reference to the Wood Duck and the Mandarin Duck, 46-53
Distribution, 5-6, 33-36, 86-92, 95-99, 107-110, 115, 175, 178, 182-186, 194-195, 205-207, 279-280, 283-284, 303-309, 313-317, 348-380, 382, 385-388
Dolichonyx oryzivorus, 170, 212
Dove, Ground, 88
 Mourning, 88, 170, 211, 376
 Rock, 170
 White-winged, 87-88
Dowitcher, Long-billed, 185
 Short-billed, 214
Dryocopus pileatus, 170, 191, 381
Duck, Fulvous Tree, 33-45
 Mandarin, 46, 50-52, 165
 Mottled, 185
 Muscovy, 50, 262, 265
 Ring-necked, 185, 214
 Wood, 46, 50-51, 165, 185, 211, 262, 264-266
Dumetella carolinensis, 170, 191, 211, 376
Dunlin, 214
Eagle, Bald, 185
Eckelberry, Don R., painting by, facing 5
Ectopistes migratorius, 185
Egret, Common, 157, 185
 Little, 157-158
 Reddish, 153-157
 Snowy, 153-157
Egretta garzetta, 154, 157
Eider, Common, 205-207
 King, 205-207
Elder, William H., review by, 288-289
Empidonax, 73
 difficilis, 80
 flaviventris, 214
 hammondi, 73
 minimus, 73, 211, 281
 oberholseri, 80
 traillii, 73, 281, 376
 virescens, 80, 376
Eremophila alpestris, 213, 245
Ereunetes pusillus, 214, 277
Erithacus rubecula, 50
Erolia alpina, 214
 maritima, 213
 minutilla, 214
Euphagus, 172
 carolinus, 215
Eurocephalus, 275-276
Falco sparverius, 172, 192, 376, 384
Falcula, 275
Falls, J. Bruce, see Stenger, Judith and
Finch, House, 91
Fisher, Harvey I., Some functions of the rectrices and their coverts in the landing of pigeons, 267-273
Fleming, Richard C., Tufted Titmouse feeding on a shrew, 94
Flicker, 230, 232
 Yellow-shafted, 75, 81, 170, 211, 216, 323-336, 376
Flycatcher, Acadian, 80, 376
 (Alder), 73, 79
 (Crested), 230-231
Dusky, 80

- Dusky-capped, 9
 Great Crested, 211, 217, 376
 Hammond's, 73-75, 80-81
 Least, 73-85, 211, 216, 281
 Scissor-tailed, 95
 Traill's, 73, 79, 281, 373, 376, 378-379
 Western, 80
 Yellow-bellied, 214
 Food habits, 6, 40, 94, 96, 115-116, 138, 153-158, 169-174, 193, 196-197, 277, 307-309, 333, 384-387
 Fossils, 178-187
Fregata, 94
Fregilupus, 94
Fringilla coelebs, 147
Fulica minor, 185
 Fulmar, 364
Fulmarus glacialis, 366, 368
 Gabrielson, Ira N. and Frederick C. Lincoln, The Birds of Alaska, reviewed, 395-397
 Gadwall, 165
Galeospar, 275
Gallinula chloropus, 185-186
 Gallinule, Common, 185
 Purple, 37, 40, 43
 Gannet, 369
Gavia, 93-94
 immer, 183, 185-186, 214
 Gelochelidon nilotica, 317
Geococcyx californianus, 98
Geothlypis trichas, 96, 212, 377
 Giller, Donald R., see Selander, Robert K. and _____
 Gilliard, E. Thomas, Living Birds of the World, reviewed, 397-399
 Gnatcatcher, Black-tailed, 90
 Blue-gray, 377
 Goldeneye, Barrow's, 159-168
 Common, 159-168, 213
 Goldfinch, American, 377
 European, 146
 Goose, Canada, 214, 344-347
 Pigmy, 50
 Goshawk, 169-174, 194-197
 Graber, Richard R. and William W. Cochran, An audio technique for the study of nocturnal migration of birds, 220-236
 Grackle, Boat-tailed, 42
 Common, 170, 209, 212, 216, 377-378
 Grebe, Horned, 185, 213
 Pied-billed, 185, 214
 Greenfinch, 147
 Griffin, Daude N., The poisoning of meadowlarks with insecticides, 193
 Grosbeak, Blue, 377-379
 Rose-breasted, 75, 170, 212, 216
 Grouse, 178
 Ruffed, 172, 182
 Sharp-tailed, 182
Grus, 94
 canadensis, 185
Guiraca caerulea, 377
 Gull, 185, 340
 Black-headed, 188, 387
 Bonaparte's, 214, 320
 California, 28, 387
 Franklin's, 387
 Great Black-backed, 213
 Herring, 188, 317, 388
 Laughing, 20, 208, 214, 387-388
 Lesser Black-backed, 387
 Mew, 387
 Ring-billed, 385, 387
 Western, 28
 Gullion, Gordon W. and Bruce A. Brown, Scissor-tailed Flycatcher in northern Minnesota, 95
Haematopus palliatus, 319
Haliaeetus leucocephalus, 185
 Hailman, Jack P., Tarsal Oiling by a banded Fox Sparrow, 277-278
 Hall, George A., A late record for Northern Phalarope in West Virginia, 194
 Hartman, Frank A., Sparrow Hawks attempting to breed in the laboratory, 384-385
 Hauser, Doris C., Notes on pairing and nest-building of mismatched vireos, 383-384
 Haverschmidt, F., Notes on the nesting of *Turdus leucomelas* in Surinam, 175-177
 Hawk, Broad-winged, 211
 Cooper's, 97, 169-174
 Harris', 86, 386-387
 Marsh, 373, 376
 Red-shouldered, 376
 Red-tailed, 86, 185
 Sparrow, 172, 192, 376, 378, 384
Helmitheros vermicivorus, 212
 Helms, Carl W., Song and Tree Sparrow weight and fat before and after a night of migration, 244-253
 Hen, Heath, 179
 Hensley, M. Max, Notes on the nesting of selected species of birds of the Sonoran Desert, 86-92
 Heron, Black-crowned Night, 185, 211
 Great Blue, 185, 214
 Green, 211, 216, 230, 376
 Louisiana, 153-157
 Night, 230
 Pied, 157
 Reef, 153
 White-faced, 157
Hirundo rustica, 211, 258
 Hofslund, P. B., review by, 103-104
 Howell, Thomas R., A field study of temperature regulation in young Least Terns and Common Nighthawks, 19-32
 Hummingbird, Black-chinned, 97
 Blue-crowned Wood-Nymph, 9
 Costa's, 88
 Ruby-throated, 211, 217, 373, 376

- Hybrids, 205-207
Hydranassa tricolor, 153, 155-157
Hydrobates, 368
 pelagicus, 369
Hydroprogne caspia, 319, 385
Hyalocichla, 220, 227-232, 235
 fuscescens, 212, 229
 guttata, 215, 234
 minima, 215, 229
 mustelina, 50, 170, 212, 281, 376
 ustulata, 215, 229
Hylophilus, 276-277
 decurtatus, 276
 flavipes, 277
 ochraceiceps, 276
 pectoralis, 277
 poicilotis, 277
 thoracicus, 277
Hypocolius, 275
Ibis, Glossy, 96
Icteria virens, 95, 212, 377
Icterus galbula, 212, 377
 spurius, 212, 377
Iridoprocne bicolor, 192, 214
Ixobrychus exilis, 37
Jackdaw, 188
Jaeger, Long-tailed, 369
 Parasitic, 369
 Pomarine, 369
Jay, Blue, 78, 170, 172, 193, 317, 323, 376
Johnsgard, Paul A., see Dilger, William C.
 and———
Junco, 340
 Oregon, 250
 Slate-colored, 213, 244, 249
Junco, 94
 hyemalis, 213, 244
 oreganus, 250
Kilham, Lawrence, Early reproductive behavior of flickers, 323-336
Killdeer, 211, 282, 376, 378
Kingbird, Eastern, 211, 216, 376
Kingfisher, Belted, 185, 211
Kinglet, Golden-crowned, 213
 Ruby-crowned, 210, 215, 281
Kirkpatrick, Charles M., Testicular response in Bobwhites to interrupted dark periods, 337-343
Kittiwake, 29, 370
Klopfer, Peter H., The development of sound-signal preferences in ducks, 262-266
Knot, 214
Lagopus, 178
 ceres, 178
Lamore, Donald H., Blue Jay feeding on termites, 193
Lanioturdus, 275-276
Lanius, 275-276
 excubitor, 95
 ludovicianus, 91
Lark, 274-276
 Horned, 213, 245
Larus, 186, 387
 argentatus, 317, 388
 atricilla, 20, 214
 californicus, 28, 387
 canus, 28, 387
 delawarensis, 385, 387
 fuscus, 387
 hyperboreus, 186
 marinus, 186, 213
 occidentalis, 28
 philadelphia, 214, 320
 pipixcan, 387
 ridibundus, 387
 sp., 27, 185
Leptopterus, 275
LeSassier, Anne L. and Frances C. Williams, Notes on a late nesting of Harris' Hawks near Midland, Texas, 386-387
Leucophoyx thula, 153-157
Limnodromus griseus, 185, 214
 scelopaceus, 184-185
Limpkin, 185
Lincoln, Frederick C., see Gabrielson, Ira N. and———
Lobipes lobatus, 194, 369
Loon, Common, 185, 214
Lophortyx gambelii, 87
Mallard, 51, 262, 264, 346
Mammals
 Citellus tereticaudus, 86-87
 Didelphis marsupialis, 40
 Dipodomys merriami, 98
 ordi, 98
 Equus sp., 183
 Mammut americanus, 183
 Mephitis mephitis, 40
 Mus musculus, 314
 Mustela vison, 314
 Neotoma albigula, 98
 Notiosorex crawfordi, 98
 Onychomys torridus, 98
 Pecari tajacu, 9
 Perognathus flavus, 98
 penicillatus, 98
 Peromyscus eremicus, 98
 Platygonus sp., 183
 Procyon lotor, 40, 314
 Rattus rattus, 314
 Reithrodontomys megalotis, 98
 Sciurus carolinensis, 170, 172
 Sorex cinereus, 94
 Sylvilagus floridanus, 170
 sp., 172
 Tamiasciurus hudsonicus, 170, 172
 Tamias striatus, 170, 172
 Tanupolama mirifica, 183
 Tapirus veroensis, 183
 Thomomys bottae, 98
Martin, House, 259-260
 Purple, 96, 211, 254-261, 376, 378

- Mayr, Ernst, review by, 391-394
- Meanley, Brooke, and Anna Gilkeson Meanley, Observations on the Fulvous Tree Duck in Louisiana, 33-45
- Meadowlark, 189
Eastern, 170, 193, 212, 377-378
Western, 193
- Measurements, 175, 179, 183-186, 279-280, 306, 308, 311
- Megaceryle alcyon*, 185-186, 211
- Melanerpes erythrocephalus*, 107-123, 170, 190, 324, 376
- Melanitta deglandi*, 159, 165, 213
perspicillata, 159, 165, 213
- Meleagris gallopavo*, 178, 185
- Melipotres*, 274
- Melospittacus undulatus*, 49, 95
- Melospiza georgiana*, 215, 250
melodia, 146, 213, 244, 377
- Meng, Heinz, Food habits of nesting Cooper's Hawks and Goshawks in New York and Pennsylvania, 169-174
- Merganser, Common, 213
Red-breasted, 185, 213
- Mergus merganser*, 213
serrator, 184-186, 213
- Metopiana*, 184
peposaca, 184
- Meyerricks, Andrew J., Foot-stirring feeding behavior in herons, 153-158; "Foot-paddling" feeding behavior in a Semipalmated Sandpiper, 277
- Migration, 208-253
- Mimus polyglottos*, 376
- Mino*, 275
- Mniotilta varia*, 212, 377
- Mockingbird, 376, 378
- Molothrus ater*, 48, 91, 170, 212, 377
bonariensis, 176
- Molts and plumages, 16-17, 175, 251, 279-280, 282-283, 303-305, 311-312, 328, 382, 386-387
- Monnie, J. B., see Schwab, R. G. and
- Morus bassanus*, 369
- Muscivora forficata*, 95
- Myiarchus crinitus*, 211, 376
tuberculifer, 9
- Myres, M. T., Display behavior of Bufflehead, scoters and goldeneyes at copulation, 159-168
- Nesting, 7-16, 36-40, 81-84, 86-92, 97-99, 114-117, 136-138, 175-177, 190-191, 194-197, 205-206, 282-284, 308-311, 316-321, 326-333, 383-386
- Nettapus coromandelianus*, 50
- Netta rufina*, 184
- Nighthawk, Common, 19-32, 211, 217
Lesser, 30
- Nilaus*, 275-276
- Nisbet, I. C. T., Calculation of flight directions of birds observed crossing the face of the moon, 237-243
- Nolan, Val, Jr., Pileated Woodpecker attacks pilot black snake at tree cavity, 381-382
- Notophoxyx novaehollandiae*, 157
picata, 157
- Nuthatch, Red-breasted, 213
White-breasted, 81, 376
- Nyctibius*, 30
- Nycticorax nycticorax*, 183, 185, 211
- Nyctidromus albicollis*, 30
- Oceanites*, 368
oceanicus, 369
- Oceanodroma*, 368-369
castro, 365, 368
leucorhoa, 365, 368
- Odontophorus gujanensis*, 307
- Oldsquaw, 213
- Oporornis formosus*, 377
philadelphia, 215
- Oriole, Baltimore, 209, 212, 216, 377-380
Orchard, 209, 212, 217, 377
- Orthonyx*, 274
- Osprey, 185, 214, 317
- Ostrich, 188-189
- Otus asio*, 170
- Ovenbird, 125-140, 210, 212, 216, 377
- Owl, Barred, 185, 376
Long-eared, 97-99
Screech, 170
- Oystercatcher, American, 319
- Pandion haliaetus*, 185, 214, 317
- Parabuteo unicinctus*, 86, 386
u. harrisi, 386
u. superior, 386
- Paradisaea*, 94
- Parakeet, Australian Shell, 95
- Parasitism, 91, 95, 176
- Parkes, Kenneth C., review by, 286-288
- Parkes, Kenneth C. and Dean Amadon, A new species of rail from the Philippine Islands, 303-306
- Parratt, Lloyd, Observations at a Goshawk nest in northwestern Montana, 194-197
- Partridge, Long-tailed, 307-312
- Parula americana*, 215
- Parus atricapillus*, 281
bicolor, 94, 376
b. atricristatus, 107
b. bicolor, 107
carolinensis, 376
- Passer domesticus*, 95, 192, 227, 278, 373, 385
- Passerculus sandwichensis*, 215, 250
- Passerella iliaca*, 215, 250, 277
- Passerherbulus henlowii*, 142, 212, 281
- Passerina cyanea*, 212, 377
- Pedioecetes*, 94, 180
phasianellus, 180, 182
p. columbianus, 180-181
- Pelecanus erythrorhynchos*, 319

- Pelican, White, 319
Petrel, Harcourt's, 368
 Leach's, 368
 Storm, 369
 Wilson's, 364, 369
Petrochelidon pyrrhonota, 214
Pettingill, Olin Sewall, Jr., King Eiders mated with Common Eiders in Iceland, 205-207
Peucedramus, 275
Pewee, Eastern Wood, 75, 81, 211, 217, 376
Phainopepla, 90-91
Phainopepla nitens, 90
Phalacrocorax auritus, 185
Phalaenoptilus nuttallii, 30
Phalarope, 369
 Northern, 194, 369
 Red, 369
Phalaropus fulicarius, 369
Pharomachrus mocino, 6
Phasianus colchicus, 170
Pheasant, Ring-necked, 170
Pheucticus ludovicianus, 75, 170, 212
Phillips, Richard Stuart, Early and elaborate nests of the Killdeer in Hancock County, Ohio, 282
Philohela minor, 376
Phoebe, Eastern, 75, 211, 216, 376
 Say's, 89
Physiology, 19-32, 192-193, 244-252, 267-273, 337-343
Picus viridis, 334
Picoides arcticus, 348
 tridactylus, 348
Pigeon, 267-273
 Passenger, 185
Pintail, 185
Pipilo erythrophthalmus, 54, 75, 170, 212, 377
Piranga olivacea, 170, 212, 377
 rubra, 377
Plectrophenax nivalis, 95, 146, 213
Plegadis falcinellus, 96
Plover, Black-bellied, 214
 Semipalmated, 214
 Wilson's, 313-314
Pochard, Rosy-billed, 184
Podiceps, 94
 auritus, 185-186, 213
Podilymbus podiceps, 185-186, 214
Poliioptila caerulea, 377
 melanura, 90
Poocetes gramineus, 213
Poor-will, 30
Populations, 33-36, 74, 192-193, 314-315, 372-380
Porphyryla martinica, 37
Predation, 40, 191, 314-315, 381-382
Prionops, 275-276
 caniceps, 275
 plumata, 275
 poliioptila, 275
 retzii, 275
Progne subis, 96, 211, 254, 376
Protonotaria citrea, 377
Psaltiriparus minimus, 97
Psittacula, 49
Ptilogonys, 275
Puffinus, 367
 assimilis, 367-368
 diomedea, 365-367
 gravis, 365-367
 lherminieri, 367-368
 puffinus, 367
 p. mauretanicus, 367
 p. puffinus, 367
Pyrrhocorax, 274
Quail, Gambel's, 87
 Marbled Wood, 307-308
Quetzal, 6, 10, 16
Quiscalus, 172
 quiscula, 170, 212, 377
Rail, Clapper, 211
 King, 37
Rallus, 303
 elegans, 37
 longirostris, 211
 mirificus, 303-306
 pectoralis, 304-306
 p. alberti, 305
 p. brachipus, 305
 p. captus, 305
 p. exsul, 305
 p. insulsus, 305-306
 p. mayri, 305
 p. pectoralis, 305
 striatus, 305-306
Rand, A. L., Tarsal scutellation of song birds as a taxonomic character, 274-277
Raven, 97
Redhead, 262, 264
Redstart, American, 210, 212, 216, 377, 379
Redwing, 382-383
Regulus calendula, 215, 281
 satrapa, 213
Reptiles
 Alligator mississippiensis, 186
 Chelydra cf. *serpentina*, 186
 Elaphe obsoleta, 191, 314, 381
 Sceloporus clarki, 86
 S. magister, 86
Rhabdornis, 274
Rhea, 188
Richmondia cardinalis, 185-186, 281, 377
Riparia riparia, 214, 259
Rissa tridactyla, 29, 370
Roadrunner, 98
Robin, 50, 74, 81, 170, 212, 216, 278-280, 376
Robinson, Thane S., Interaction between a feral parakeet and House Sparrows, 95; review by, 103; Chipping Sparrow copulates with House Sparrow, 385
Rynchops nigra, 283, 314, 385

- Salpinctes*, 275
 Sanderling, 214
 Sandford, Lloyd, painting by, facing 303
 Sandpiper, Least, 214
 Semipalmated, 214, 277
 Solitary, 214
 Spotted, 170, 211, 216, 376, 378-379
 Purple, 213
 Sapsucker, 330, 333
 Yellow-bellied, 170, 214
 Saunders, Aretas A., Forty years of spring migration in southern Connecticut, 208-219; Octaves and kilocycles in bird songs, 280-282
Sayornis phoebe, 75, 211, 376
 saya, 89
 Scaup, Greater, 213
 Lesser, 164, 185
Scenopoetes, 275
 Schwab, R. G. and J. B. Monnie, Strife over a nesting site between Downy and Red-headed Woodpeckers, 190-191
 Scoter, Surf, 159, 162-168, 213
 White-winged, 159, 162-168, 213
 Seaman, G. A., New bird records for St. Croix, Virgin Islands, 96
Seiurus aurocapillus, 125, 170, 212, 377
 motacilla, 212, 377
 noveboracensis, 215
 Selander, Robert K. and Donald R. Giller, Interspecific relations of woodpeckers in Texas, 107-124
Serinus sp., 147
Setophaga ruticilla, 212, 377
 Shearwater, 365
 Audubon's, 367
 Cory's, 366
 Greater, 366
 Little, 367
 Manx, 367
 Sheld-Duck (Shelduck, Sheldrake), 51, 262-266
 Shrike, 274-276
 Loggerhead, 91
 Northern, 95
Sialia sialis, 192, 212, 377
Sitta canadensis, 213
 carolinensis, 376
 Skimmer, Black, 283-284, 314, 317, 385-386
 Skutch, Alexander F., Life history of the Black-throated Trogon, 5-18
 Smith, Robert Leo, The songs of the Grasshopper Sparrow, 141-152
 Snyder, L. L., Arctic birds of Canada, reviewed, 103-104
Somateria mollissima, 205-207
 spectabilis, 205-207
 Southern, William E., Foster-feeding and polygamy in the Purple Martin, 96; Homing of Purple Martins, 254-261; see Tordoff, Harrison B. and
 Sparrow, 274
 Bachman's, 377-379
 Chipping, 29-30, 143, 213, 216, 377, 385
 Field, 29-30, 213, 216, 377
 Fox, 215, 250, 277-278
 Gambel's, 282
 Grasshopper, 141-152, 212, 377-378
 Henslow's, 142, 212, 281
 House, 95, 192, 278, 373, 385
 Lark, 250-251, 277-278, 377-378
 Savannah, 215, 250
 Seaside, 213
 Sharp-tailed, 213
 Song, 146, 209, 213, 244-252, 377-378
 Swamp, 215, 250
 Tree, 213, 244-252
 Vesper, 213, 216
 White-crowned, 215, 250, 282
 White-throated, 215, 244, 249-251, 281-282
Spatula, 184
 Speirs, J. Murray, see West, J. David and
Sphecotheres, 275
Sphyrapicus varius, 170, 214
Spinus tristis, 377
Spiza americana, 377
Spizella arborea, 213, 244
 passerina, 29, 143, 213, 377, 385
 pusilla, 29, 213, 377
 Spoonbill, Roseate, 185
Squatarola squatarola, 214
 Staebler, Arthur E., Subspecies of the Canada Goose in Michigan, 344-347
 Starling, 170-171, 174, 192, 377, 380
Stelgidopteryx ruficollis, 211, 259
 Stenger, Judith and J. Bruce Falls, The utilized territory of the Ovenbird, 125-140
Stercorarius longicaudus, 369
 parasiticus, 369
 pomarinus, 369
Sterna albifrons, 19
 a. albifrons, 28, 313
 a. athalassos, 315
 dougallii, 214
 forsteri, 283
 hirundo, 214, 317
 paradisaea, 369-370
 Stine, Perna M., Changes in the breeding birds of Bird Haven Sanctuary over a period of forty-five years, 372-380
 Stophlet, John J., Nesting concentration of Long-eared Owls in Cochise County, Arizona, 97-99
 Stork, 185
Strix varia, 185, 376
Struthio camelus australis, 188
 c. massaicus, 188
Sturnella magna, 170, 193, 212, 377
 neglecta, 193

- Sturnus*, 94
 vulgaris, 170, 192, 377
Swallow, Bank, 214, 259-260
 Barn, 211, 216, 258-260
 Cliff, 214
 Rough-winged, 211, 216, 259-260
 Tree, 192, 214
Swift, Chimney, 211, 216, 376, 378
Tadorna tadorna, 51, 262
Tanager, Scarlet, 170, 212, 216, 377, 379
 Summer, 377
Taxonomy, 274-280, 303-306
Tchagra, 275-276
 cruentus, 275
Teal, Blue-winged, 37, 42, 185
 Green-winged, 185
Telmatodytes palustris, 37, 211
Tephrodoris, 275
Tern, Arctic, 369-370
 Black, 20
 Caspian, 319, 385-386
 Common, 214, 317
 Forster's, 283-284
 Gull-billed, 317
 Least, 19-32, 313-322
 Roseate, 214
 Royal, 315, 317
Thalasseus maximus, 315
Thalurania furcata, 9
Thrasher, Brown, 212, 216, 376
 Curve-billed, 87, 89-90
 (Palmer's), 89
Thrush, Gray-cheeked, 215, 229, 233, 235
 Grey-headed, 175-177
 Hermit, 215, 234
 Olive-backed, 235
 Swainson's, 215, 229, 233, 235
 Wood, 50, 170, 212, 216, 231, 281, 376, 379
Thryomanes bewickii, 376
Thryothorus ludovicianus, 376
Titmouse, Tufted, 94, 107, 376
Tomer, John S., A Palm Warbler in Oklahoma, 99
Tomkins, Ivan R., Life history notes on the Least Tern, 313-322
Tordoff, Harrison B., review by, 397-399
Tordoff, Harrison B. and William E. Southern, Caspian Tern and Black Skimmer in Newfoundland, 385-386
Totanus melanoleucus, 214
Towhee, Rufous-sided, 54-72, 75, 81, 170, 212, 216, 377
Toxostoma curvirostre, 90
 rufum, 212, 376
Tringa solitaria, 214
Troglodytes aedon, 26, 146, 192, 211, 376
 musculus, 176
 troglodytes, 146, 214
Trogon, Baird's, 6
 Black-throated, 5-18
 Citreoline, 7, 16
 Collared, 6, 7, 11, 16, 17
 Massena, 6, 7
 Mexican, 7, 12, 17
 Violaceous, 6, 10
 White-tailed, 6, 7, 16
Trogon citreolus, 7
 collaris, 6
 massena, 6
 mexicanus, 7
 rufus, 5-18
 violaceus, 6
 viridis, 6
Turdus albicollis, 175
 fumigatus, 175
 iliacus, 382
 leucomelas, 175
 l. albiventer, 175
 merula, 176
 migratorius, 75, 170, 212, 278-280, 376
 m. achrusterus, 279
 m. caurinus, 280
 m. migratorius, 279-280
 m. nigriceus, 279
 m. permixtus, 280
 m. phillipsi, 279-280
 m. propinquus, 278-280
 musicus, 382
 nudigenis, 175
 propinquus, 279
Turkey, 178, 185
Turnstone, Ruddy, 214
Tympanuchus, 180
 ceres, 178-179
 cupido cupido, 179-180
 c. pinnatus, 179-181
 pallidicinctus, 179-180
Tyrannus, 94
 tyrannus, 211, 376
Uria, 93-94
Van Tyne, Josselyn and Andrew J. Berger, Fundamentals of Ornithology, reviewed, 391-394
Vaurie, Charles, The Birds of the Palearctic Fauna, reviewed, 286-288
Verdin, 89
Veery, 208, 212, 216, 229, 235
Vermivora peregrina, 215
 pinus, 212
 ruficapilla, 215
Vireo, 276
 Bell's, 373, 377
 Mountain, 383
 Red-eyed, 212, 217, 231, 377
 Solitary, 215, 383-384
 Warbling, 212, 377-379
 White-eyed, 208, 212, 216, 377, 379
 Yellow-throated, 212, 216, 373, 377, 383-384
Vireo, 94, 383
 bellii, 377
 flavifrons, 212, 377, 383
 gilvus, 212, 377

- griseus*, 212, 377
olivaceus, 212, 377
solitarius, 215, 383
s. alticola, 383
 Voice, 6, 54-72, 75-79, 110-111, 141-152, 220, 234-235, 280-281, 308, 317, 321, 323-328, 332
 Vulture, Black, 185
 Turkey, 86
 Wallace, George J., The plight of the blue-bird in Michigan, 192-193
 Warbler, Bay-breasted, 210, 215
 Black-and-white, 212, 216, 377, 379
 Blackburnian, 210, 215
 Blackpoll, 210, 215
 Black-throated Blue, 215
 Black-throated Green, 212, 216
 Blue-winged, 212, 216
 Canada, 215
 Cerulean, 373, 377, 379
 Chestnut-sided, 75, 212, 216
 Hooded, 212, 216
 Kentucky, 377
 Magnolia, 210, 215
 Mourning, 215
 Myrtle, 213
 Nashville, 215
 Palm, 99, 215
 Parula, 210, 215
 Pine, 215
 Prairie, 212, 216, 377-378
 Prothonotary, 374, 377
 Tennessee, 210, 215
 Wilson's, 215
 Worm-eating, 212
 Yellow, 209, 212, 216, 377, 379-380
 Yellow-throated, 374, 377
 Warner, Dwain W., The song, nest, eggs, and young of the Long-tailed Partridge, 307-312
 Waterthrush, Louisiana, 212, 216, 377
 Northern, 215
 Waxwing, Cedar, 75, 81, 377
 Webster, J. Dan, The taxonomy of the Robin in Mexico, 278-280
 Weights, 175-176, 309-310
 West, J. David and J. Murray Speirs, The 1956-1957 invasion of three-toed woodpeckers, 348-363
 Wetmore, Alexander, Notes on certain grouse of the Pleistocene, 178-182
 Whip-poor-will, 211, 373, 376
 Wiley, R. Haven, Birds observed during two Atlantic crossings, 364-371
 Williams, Frances C., see LeSassier, Anne L. and———
Wilsonia canadensis, 215
 citrina, 212
 pusilla, 215
 Wilson Ornithological Society
 Josselyn Van Tyne Memorial Library, 102, 200, 390
 Membership, 101-102, 198, 253, 284-285, 312, 388-389
 Ornithological News, 100-101, 198-199, 285, 389
 Proceedings of the Annual Meeting, 290-298
 Wolk, Robert G., Laughing Gulls following the plow, 387-388
 Woodcock, American, 373, 376, 378
 Woodpecker, Black-backed Three-toed, 348-363
 Downy, 190-191, 376
 Gila, 87-89
 Golden-fronted, 107-124
 Green, 334
 Hairy, 81, 170, 376
 Ivory-billed, 324
 Northern Three-toed, 348-363
 Pileated, 170, 191, 381-382
 Red-bellied, 107-124, 323-324, 327, 330, 376
 Red-cockaded, 185
 Red-headed, 107-124, 170, 190-191, 324, 376
 Woolfenden, Glen E., A Pleistocene avifauna from Rock Spring, Florida, 183-187
 Wren, Bewick's, 376
 Cactus, 89-90
 Carolina, 376, 379
 European, 146
 House, 23, 26, 29, 146, 176, 192, 208, 211, 216, 376
 Long-billed Marsh, 37, 211
 Winter, 214
 Yellowlegs, Greater, 214
 Yellowthroat, 96, 212, 216, 377
 Young, Charles F. J., A North American sight record of the Redwing, 382-383
Zenaida asiatica, 87
 Zimmerman, Dale A., review by, 395-397
Zenaidura macroura, 88, 170, 211, 376
Zonotrichia, 220, 282
 albicollis, 215, 244, 281, 283
 leucophrys, 215, 250
 l. gambelii, 282-283
 l. leucophrys, 282-283