

INDEX TO VOLUME 90

A

- Abies concolor*, 561–574
magnifica, 561–574
Accepters, 349–358
Accipiter nisus, 210, 583, 658
Acorns, 705–708
Acrotheres tristis, 504
Acrocephalus arundinaceus, 426
palustris, 426, 594
schoenobaenus, 426
scirpaceus, 426
Actitis macularia, 942
Activity metabolism, 662–668
Aechmophorus clarkii, 632
occidentalis, 632–636
Aedes taeniorhynchus, 727–729
Aegolius funereus, 658
Afrotropics, 583–587
Afton, Alan D., see Ankney, C. Davison
Age, 201–213, 379–388, 731–734
Agelaius icterocephalus, 299
phoeniceus, 45, 125, 193–200, 211, 325, 349–358,
426, 458, 546, 604, 935, 956
tricolor, 426
xanthomus, 289
Aggressive behavior, 271–274
Agonistic interaction, 681–688
Aix sponsa, 459–472, 839, 920–930
Akapea, see *Loxops coccineus*
Akiapolaau, see *Hemignathus munroi*
Alarm calls, 632–636
Alaska, 613–620, 712–714
Alauda arvensis, 509
Albatross, Black-browed, see *Diomedea melanophris*
Gray-headed, see *Diomedea chrysostoma*
Laysan, see *Diomedea immutabilis*
Light-mantled Sooty, see *Phoebetria palpebrata*
Sooty, see *Phoebetria fusca*
Wandering, see *Diomedea exulans*
Waved, see *Diomedea irrorata*
Alca torda, 816–823, 966
Alcidae, 718–721
Alcids, 965–966
Alcoholic specimens, 500–503
Alle alle, 712–714
Allospecific song, 486–489
Allozymes, 428–445
Amakihi, Common, see *Hemignathus virens*
Amazonia, 239–241, 497–499
Ammodramus humeralis, 42
Anas clypeata, 459–472, 490
crecca, 552
discors, 470, 710
platyrhynchos, 125, 263–266, 459–472, 490, 546,
669–680, 839
rubripes, 490
strepera, 467
Anderson, Bertin W., see Hunter, William C.
Anderson, David J., and Fortner, Sharon, Waved Albatross egg neglect and associated mosquito ectoparasitism, 727–729
Andes, 251–253
Androgen, 555–560
Anhingidae, 885–905
Ani, Groove-billed, see *Crotophaga sulcirostris*
Smooth-billed, see *Crotophaga ani*
Animal model, 697–704
Ankney, C. D., see Forbes, M.R.L.
Ankney, C. Davison, and Afton, Alan D., Bioenergetics of breeding Northern Shovelers: Diet, nutrient reserves, clutch size, and incubation, 459–472
Annual cycle, 141–156
variation, 561–574
Anorexia, 257–258
Anous minutus, 260
stolidus, 260, 844
Antarctic krill, 157–167
Antarctica, 484–486
Antbird, Wing-banded, see *Myrmornis torquata*
Anthus spinolletta, 150
Antpitta, Thrush-like, see *Myrmothera campanisona*
Apapane, see *Himatione sanguinea*
Aphelocoma coerulescens, 4, 141, 319, 379–388, 402,
503–505, 624, 705–708
ultramarina, 319, 504
Aptenodytes patagonica, 257
patagonicus, 157
Apteryx australis, 484
Apus apus, 710
Aquila verreauxi, 583–587
Ara ararauna, 240
Arad, Zeev, and Bernstein, Marvin H., Temperature regulation in Turkey Vultures, 913–919
Arango, Gonzalo, see Graves, Gary R.
Arcese, Peter, Stoddard, Philip Kraft, and Hiebert, Sara M., The form and function of song in female Song Sparrows, 44–50
Ardea herodias, 458, 852
Ardeola ibis, 458
Arizona, 61–71
Asa, Cheryl S., see Cannell, Peter F.
Assortative mating, 201–213
Athene cunicularia, 512
Attendance behavior, 816–823
Atwood, Jonathan L., and Massey, Barbara W., Site fidelity of Least Terns in California, 389–394
Auks, Crested, see *Aethia cristatella*
Least, see *Aethia pusilla*
Parakeet, see *Cyclorrhynchus psittacula*
Rhinoceros, see *Cerorhinca monocerata*
Aulacorhynchus prasinus, 102
Auriparus flaviceps, 119
Avian ecology, 324–331
Avifauna, 931–933
decline, 478–482
Aythya affinis, 168–172
americana, 926
collaris, 469, 839
ferina, 168
fuligula, 168
valisineria, 168–172

B

- Bakst, Murray R., see Cannell, Peter F.
 Balda, Russell P., see Brawn, Jeffrey D.
 Balda, Russell P., see Hejl, Sallie J.
 Balda, Russell P., see Marzluff, John M.
 Bananaquit, see *Coereba flaveola*
 Banding recoveries, 389–394
 Banks, Richard C., Geographic variation in the Yellow-billed Cuckoo, 473–477
 Baptista, Luis F., Imitation of White-crowned Sparrow songs by a Song Sparrow, 486–489
 Barclay, Robert M. R., see Hébert, Percy N.
 Bare-Eye, Black-spotted, see *Phlegopsis nigromaculata*
 Bartle, John Alexander, see Weimerskirch, Henri
Basileuterus culicivorus, 428
 Bay of Fundy, 824–835
 Bech, Claus, see Haftorn, Svein
 Bédard, Jean, see Giroux, Jean-François
 Bednarz, James C., A comparative study of the breeding ecology of Harris' and Swainson's hawks in southeastern New Mexico, 311–323
 Behavior, 945–947
 Behavior during molt, 141–156
 Belles-Isles, Jean-Claude, see Picman, Jaroslav
 Belthoff, James R., see Ritchison, Gary
 Bendell, James F., see Naylor, Brian J.
 Bendell, James F., see Szuba, Kandyd J.
 Bering Sea, 723–726
 Bernstein, Marvin H., see Arad, Zeev
 Beta-hydroxybutyrate, 257–258
 Bierregaard, Richard O., see Klein, Bert C.
 Bioacoustics, 745–760
 Bird abundance, 339–348
 assemblage, 561–574
 community, 561–574
 Bird, D. M., see Rehder, N. B.
 Bird of paradise, 538–545
 Birkhead, T. R., and Gaston, A. J., The composition of Ancient Murrelet eggs, 965–966
 Bittern, American, see *Botaurus lentiginosus*
 Least, see *Ixobrychus exilis*
Biziura lobata, 170
 Blackbird, Eurasian, see *Turdus merula*
 Melodious, see *Dives dives*
 Red-winged, see *Agelaius phoeniceus*
 Tri-colored, see *Agelaius tricolor*
 Yellow-headed, see *Xanthocephalus xanthocephalus*
 Yellow-hooded, see *Agelaius icterocephalus*
 Yellow-shouldered, see *Agelaius xanthomus*
 Black-Grouse, Eurasian, see *Lyrurus tetrix*
 Blood sampling, 939–941, 942–945
 Bluebird, Eastern, see *Sialia sialis*
 Mountain, see *Sialia currucoidea*
 Western, see *Sialia mexicana*
 Boardman, Constance, see Massey, Barbara W.
 Bobolink, see *Dolichonyx oryzivorus*
 Bobwhite, Northern, see *Colinus virginianus*
 Body composition, 669–680
 size, 201–213
 weight, 555–560
Boiga irregularis, 478–482
Boissonneaua flavescens, 102
Bolborhynchus ferrugineifrons, 252
Bombycilla cedrorum, 356, 505–507, 590
Bonasa umbellus, 17, 529, 717, 836–842
 Booby, Brown, see *Sula leucogaster*
 Masked, see *Sula dactylatra*
 Red-footed, see *Sula sula*
 Booth, D. T., see Rahn, H.
 Botzler, Richard G., see Miller, Sherri L.
 Bout length, 592–606
 Brant, see *Branta bernicla*
 bernicla, 88, 263
 canadensis, 83–89, 210, 228–232, 263, 558, 733
 minima, 88
 Braun, C. E., see Remington, T. E.
 Brawn, Jeffrey D., and Balda, Russell P., Population biology of cavity nesters in northern Arizona: Do nest sites limit breeding densities?, 61–71
 Brazil, 40–43
 Breeding, 555–560
 biology, 83–89, 311–323, 515–517, 689–696
 colony, 484–486
 densities, 61–71
 molt overlap, 141–156
 success, 583–587, 727–729
 Brood parasitism, 40–43, 253–256, 289–303, 349–358, 920–930
 Brown, Charles R., see Brown, Mary Bomberger
 Brown, Mary Bomberger, and Brown, Charles R., Access to winter food resources by bright- versus dull-colored House Finches, 729–731
 Brown adipose tissue, 529–537
Bubo virginianus, 651, 737
Bubulcus ibis, 506, 547
Bucephala albeola, 926
 clangula, 926
 Bufflehead, see *Bucephala albeola*
 Buitron, Deborah, Female and male specialization in parental care and its consequences in Black-billed Magpies, 29–39
 Bullfinch, Eurasian, see *Pyrrhula pyrrhula*
 Lesser Antillean, see *Loxigilla noctis*
 Puerto Rican, see *Loxigilla portoricensis*
 Bunting, Indigo, see *Passerina cyanea*
 Lark, see *Calamospiza melanocorys*
 Painted, see *Passerina ciris*
 Burger, Joanna, Social attraction in nesting Least Terns: Effects of numbers, spacing, and pair bonds, 575–582
 Burger, Joanna, and Gochfeld, Michael, Nest-site selection by Roseate Terns in two tropical colonies on Culebra, Puerto Rico, 843–851
 Burger, Joanna, see Safina, Carl
 Burns, Jeffrey T., see Cheng, Kimberly M.
 Bushtit, see *Psaltriparus minimus*
Buteo jamaicensis, 193, 321, 916
 solitarius, 341
 swainsoni, 311–323
Buthraupis [Bangsia] arcae, 948
 edwardsi, 947–948
 Byers, Steven M., see Semel, Brad

C

- Caccamise, Donald F., and Morrison, Douglas W., Avian communal roosting: A test of the "patch-sitting" hypothesis, 453–458
 Cache survival, 247–249
 Caching, 621–631

- Cacicus cela*, 681–688
Cacique, Yellow-rumped, see *Cacicus cela*
Calamospiza melanocorys, 935
Calidris ferruginea, 931
 mauri, 931
 pusilla, 824–835, 931, 942
California, 389–394, 401–419, 802–815
Calling behavior, 304–310
Callipepla californica, 78
Calls, 508–510
Calypte anna, 234
 costae, 375
Camilliere, James J., see Olson, John M.
Campylorhynchus brunneicapillus, 321
Cannell, Peter F., Bakst, Murray R., and Asa, Cheryl S., Suggestions regarding alcoholic bird collections, 500–503
Canopy, 761–772
Canvasback, see *Aythya valisineria*
Carcass composition, 15–19
 fat, 836–842
Cardinal, Northern, see *Cardinalis cardinalis*
Cardinalis cardinalis, 299, 339–348, 588–591
Carduelinae, 745–760
Carduelis flammea, 150, 152
 pinus, 510–512
 tristis, 125, 198, 254, 510–512, 534
Carnegia gigantea, 791–801
Carpenter, Lynn F., and Hixon, Mark A., A new function for torpor: Fat conservation in a wild migrant hummingbird, 373–378
Carpodacus cassini, 151, 570
 mexicanus, 58–60, 515, 534, 729–731
 purpureus, 45, 504, 510–512
Carter, Harry R., and Hobson, Keith A., Creching behavior of Brandt's Cormorant chicks, 395–400
Casmerodus albus, 512
Castilleja miniata, 233–236
Catabolic capacity, 529–537
Catbird, Gray, see *Dumetella carolinensis*
Cathartes aura, 484, 913–919, 937–938
 melambrotus, 240
Catharus fuscescens, 178
 guttatus, 51–57, 175, 368, 504, 570
 minimus, 176
 ustulatus, 175, 272, 359–372
Catoptrophorus semipalmatus, 201
Cavalcanti, Roberto B., and Pimentel, Thais Martins, Shiny Cowbird parasitism in central Brazil, 40–43
Cavanaugh, Paul M., see Ritchison, Gary
Cavity-nesting birds, 61–71
Census methods, 613–620
Centrocercus urophasianus, 15–19, 201, 716–717
Cephus columba, 719
 grylle, 712, 966
Cerorhinca monocerata, 719, 966
Cerrado, 40–43
Certhidia olivacea, 506
Chaffinch, Common, see *Fringilla coelebs*
Charadrius vociferus, 515
Chasiempis sandwichensis, 345
Chat, Yellow-breasted, see *Icteria virens*
Chen caerulescens, 16, 87, 263, 467, 731–734, 811
Cheng, Kimberly M., and Burns, Jeffrey T., Dominance relationship and mating behavior of domestic cocks - A model to study mate guarding and sperm competition in birds, 697–704
Cherel, Yves, and Le Maho, Yvon, Changes in body mass and plasma metabolites during short-term fasting in the King Penguin, 257–258
Chesapeake Bay, 860–865
Chickadee, Black-capped, see *Parus atricapillus*
 Boreal, see *Parus hudsonicus*
 Chestnut-backed, see *Parus rufescens*
 Mountain, see *Parus gambeli*
Chicken, see *Gallus domesticus* or *Gallus gallus*
Chile, 259–261
Chlidonias niger, 125, 505–507
Chordeiles minor, 506
Christmas Island, 90–99
Cinclode, Bar-winged, see *Cinclodes fuscus*
 Stout-billed, see *Cinclodes excelsior*
Cinclodes excelsior, 251–253
 fuscus, 252
Circus cyaneus, 129
Cistothorus palustris, 4, 125, 602
 platenensis, 129, 602
Clangula hyemalis, 170
Clarion Island, 512–513
Climatic gradients, 113–123
Clutch desertions, 942–945
 limitation, 459–472
 size, 324–331, 956–958
 size apportionment, 332–338
 variation, 83–89
Coccycus americanus, 118, 292, 473–477
 eulerti, 477
 melacoryphus, 505–507
Cock of the Rock, Guianan, see *Rupicola rupicola*
Coereba flaveola, 292
Colaptes auratus, 178, 515, 568, 654, 791–801, 927
Coleman, John S., Fraser, James D., and Scanlon, Patrick F., Hematocrit and protein concentration of Black Vulture and Turkey Vulture blood, 937–938
Colinus virginianus, 11, 187–192
Collection management, 500–503
Colombia, 100–106, 251–253
Coloniality, 575–582, 714–715, 953–955
Colonization, 505–507
Colony attendance, 613–620
 formation, 575–582
Colorado, 15–19, 253–256, 349–358, 546–554
 River, 113–123
Columba leucocephala, 504
 livia, 201, 267, 552, 662–668
Columbina talpacoti, 41
Colwell, Mark A., Gratto, Cheri L., Oring, Lewis W., and Fivizzani, Albert J., Effects of blood sampling on shorebirds: Injuries, return rates, and clutch desertions, 942–945
Combs, Shawn M., see Miller, Sherri L.
Communal nesting, 241–245
 roosting behavior, 453–458
Communication, 632–636, 721–723
Competition, 233–236, 935–937
Compsophalieus fuscescens, 893
 harrisi, 893
 neglectus, 893
 penicillatus, 893
 perspicillatus, 886

- Conry, Paul J., High nest predation by brown tree snakes on Guam, 478–482
- Contopus borealis*, 359–372, 515
virens, 368
- Cooperative breeding, 100–106, 311–323
- Coot, American, see *Fulica americana*
Eurasian, see *Fulica atra*
- Copulation, 245–246
- Copying, 132–140
- Coragyps atratus*, 913, 937–938
- Corbin, Kendall W., Livezey, Bradley C., and Humphrey, Philip S., Genetic differentiation among steamer-ducks (Anatidae: *Tachyeres*): An electrophoretic analysis, 773–781
- Corbin, Kendall W., and Wilkie, Patricia J., Genetic similarities between subspecies of the White-crowned Sparrow, 637–647
- Cordonbleu, Red-cheeked, see *Uraeginthus bengalus*
- Cormorant, Bank, see *Phalacrocorax neglectus*
Brandt's, see *Phalacrocorax penicillatus*
Crowned, see *Phalacrocorax coronatus*
Double-crested, see *Phalacrocorax auritus*
Galápagos, see *Nannopterum harrisi*
Great, see *Phalacrocorax carbo*
Indian, see *Hypoleucus fuscicollis*
Pallas', see *Pallasiarbo perspicillatus*
- Coronet, Buff-tailed, see *Boissoneaua flavaescens*
- Corvus brachyrhynchos*, 35, 125, 193, 735, 936, 946, 950
corax, 270–271, 359–372, 950–952, 952
corone, 956
kubaryi, 479
- Costa Rica, 607–612, 761–772, 931–933
- Coturnix coturnix*, 189, 935
- Court objects, 538–545
- Cowbird, Bronzed, see *Molothrus aeneus*
Brown-headed, see *Molothrus ater*
Shiny, see *Molothrus bonariensis*
- Crake, Gray-breasted, see *Lateralus exilis*
White-throated, see *Lateralus albicularis*
- Crawford, Robert L., see Terrill, Scott B.
- Creche, 395–400
- Creeper, Hawaii, see *Oreomystis mana*
- Crescentchest, Collared, see *Melanopareia torquata*
- Crossbill, Red, see *Loxia curvirostra*
- Crotophaga ani*, 506
sulcirostris, 241, 932
- Crow, American, see *Corvus brachyrhynchos*
Mariana, see *Corvus kubaryi*
- Croxall, J. P., Davis, R. W., and O'Connell, M. J., Diving patterns in relation to diet of Gentoo and Macaroni penguins at South Georgia, 157–167
- Cruz, Alexander, see Ortega, Catherine P.
- Cryptic species, 745–760
- Cuckoo, Dark-billed, see *Coccyzus melacoryphus*
Yellow-billed, see *Coccyzus americanus*
- Curlew, Bristle-thighed, see *Numenius tahitiensis*
- Curran-Everett, Linda, see Rahn, H.
- Curry, Robert L., and Stoleson, Scott H., New bird records from the Galápagos associated with the El Niño-Southern Oscillation, 505–507
- Cyanocitta cristata*, 128, 142, 353, 504, 950
stelleri, 52, 379–388, 428, 504
- Cyanocorax yncas*, 102
- Cyclarhis gujanensis*, 428
- Cyclorrhynchus psittacula*, 448, 712
- Cygnus atratus*, 811
buccinator, 9
columbianus, 802–815
olor, 811
- Cypsnagra hirundinacea*, 41
- D**
- Daily mortality, 51–57
- Dau, Christian P., see Handel, Colleen M.
- Davis, R. W., see Croxall, J. P.
- Dawson, William R., see Olson, John M.
- Day, Robert H., DeGange, Anthony R., Divoky, George J., and Troy, Declan M., Distribution and subspecies of the Dovekie in Alaska, 712–714
- DeGange, Anthony R., see Day, Robert H.
- Delayed plumage maturation, 379–388
- Dendragapus canadensis*, 489–492, 492–496
obscurus, 49, 494, 716–717
- Dendrocygna autumnalis*, 928
- Dendroica coronata*, 175, 261–263, 267, 272, 504, 567
discolor, 150, 932
palmarum, 273, 932
petechia, 125, 141–156, 254, 289–303, 355, 386, 552, 588–591
tigrina, 271–274
- Dependence, 247–249
estimates, 401–419
- Derrickson, Kim C., Variation in repertoire presentation in Northern Mockingbirds, 592–606
- Desertion, 588–591
- Development, 721–723
- Device-related disturbance, 816–823
- Dicrurus macrocercus*, 479
- Diet, 20–28, 157–167, 311–323, 458–472, 731–734, 860–865
- Dietary protein, 836–842
- Diomedea chrysostoma*, 214–219
exulans, 214–219, 446–452
immutabilis, 448
rrorata, 727–729
melanophris, 214–219
- Display objects, 538–545
- Distribution, 712–714
- Diurnal activity center, 453–458
pattern, 697–704
- Dives dives*, 932
- Diving, 157–167
behavior, 168–172
- Divoky, George J., see Day, Robert H.
- Dolichonyx oryzivorus*, 125, 546
- Dominance, 201–213, 697–704, 729–731
- Doubly-labeled water method, 662–668
- Dove, Eared, see *Zenaida auriculata*
Mourning, see *Zenaida macroura*
- Rock, see *Columba livia*
- Dovekie, see *Alle alle*
- Drongo, Black, see *Dicrurus macrocercus*
- Dryocopus pileatus*, 359–372
- Duck, Black, see *Anas rubripes*
Black-bellied Whistling, see *Dendrocygna autumnalis*
- Harlequin, see *Histrionicus histrionicus*
- Maccoa, see *Oxyura maccoa*
- Musk, see *Biziura lobata*

- Ring-necked, see *Aythya collaris*
 Ruddy, see *Oxyura jamaicensis*
 Tufted, see *Aythya fuligula*
 Wood, see *Aix sponsa*
- Dufsty, Alfred M., Jr., Flight whistle incorporated in Brown-headed Cowbird song, 508–510
 Dufsty, Alfred M., Jr., The effects of repeated blood sampling on survival in Brown-headed Cowbirds, 939–941
 Dujardin, Jean-Luc, see Tostain, Olivier
Dumetella carolinensis, 125, 178, 354
 Duncan, David C., and Gaston, Anthony J., The relationship between precocity and body composition in some neonate alcids, 718–721
 Dunn, Erica H., see MacInnes, Charles D.
 Dunn, Peter O., May, Terry A., McCollough, Mark A., and Howe, Marshall A., Length of stay and fat content of migrant Semipalmated Sandpipers in eastern Maine, 824–835
- E**
- Eagle, Bald, see *Haliaeetus leucocephalus*
 Black, see *Aquila verreauxii*
 Crested, see *Morphnus guianensis*
 Ecophysiology, 257–258
 Ectoparasite, 727–729
 Ecuador, 947–948
 Edinger, Bruce B., Extra-pair courtship and copulation attempts in Northern Orioles, 546–554
 Effects of habitat, 124–131
 Egg composition, 965–966
 destruction, 935–937
 mass, 324–331, 332–338
 neglect, 727–729
 predation, 124–131
 weights, 709–711
 Eggs, 236–239, 947–948, 965–966
 Eggshell mass, 962–964
 thickness, 962–964
 Egret, Cattle, see *Ardeola ibis* or *Bubulcus ibis*
 Great, see *Casmerodius albus*
 Ehrlich, Paul R., and McLaughlin, John F., Scrub Jay predation on starlings and swallows: Attack and interspecific defense, 503–505
 Eider, Common, see *Somateria mollissima*
 Electrophoresis, 71–82, 241–245, 637–647, 773–781
 Elepaio, see *Chasiempis sandwichensis*
 El Niño, 259–261, 561–574
 El Niño-Southern Oscillation, 505–507
Emberiza schoeniclus, 153
 Embryo mechanism, 187–192
 Embryonic vocalizations, 721–723
 Embryos, 958–959
Empidonax alnorum, 253
 flaviventris, 5
 hammondi, 359, 563
 minimus, 272
 oberholseri, 563
 trailii, 253–256
 Endangered species, 339–348, 389–394
 Energetics, 107–112, 373–378
 Energy conservation, 373–378
 reserves, 15–19
- Engraulis mordax*, 347–354
Eremophila alpestris, 935–937
Erithacus rubecula, 267
Eudocimus albus, 943
Eudyptes chrysophrys, 157–167
Eulampis holosericeus, 295
Euleucocarbo chalconotus, 886
 colensoi, 886
 onslowi, 886
 ranfurlyi, 886
Euphausia superba, 157–167
 Evans, Roger M., Embryonic vocalizations and the removal of foot webs from pipped eggs in the American White Pelican, 721–723
 Evaporative water loss, 913–919
 Everett, William T., Notes from Clarion Island, 512–513
 Evolution, 802–815
 Evolutionary unit, 1–14
 Extinction, 906–912
 Extra-pair copulation, 245–246, 546–554
 courtship, 546–554
- F**
- Falco columbarius*, 734–738
 peregrinus, 583
 sparverius, 290, 393, 512, 515–517, 555–560, 659
 tinnunculus, 69
 Falcon, Peregrine, see *Falco peregrinus*
 Falconiformes, 913–919
 Fancher, Jack M., see Zembal, Richard
 Fat content, 15–19, 824–835
 Fecundity, 201–213
 Feeding behavior, 239–241
 rates, 173–186
 zones, 214–219
 Female aggression, 44–50
 pairs, 933–935
 Feral pigs, 512–513
Ficedula hypoleuca, 61–71, 546
 Field endocrinology, 942–945
 Field techniques, 939–941
 Finch, Cassin's, see *Carpodacus cassini*
 House, see *Carpodacus mexicanus*
 Purple, see *Carpodacus purpureus*
 Rosy, see *Leucosticte arctoa*
 Warbler, see *Certhidea olivacea*
 Zebra, see *Poephila guttata*
 Fish, 157–167
 population, 852–859
 Fitch, Mary A., see Shugart, Gary W.
 Fivizzani, Albert J., see Colwell, Mark A.
 Fixation, 500–503
 Fledging period, 948–950
 Fledgling, 395–400
 Fleshy fruits, 173–186
 Flicker, Northern, see *Colaptes auratus*
 Flight metabolism, 662–668
 range, 824–835
 speed, 662–668
 Fluid specimens, 500–503
 Flycatcher, Alder, see *Empidonax alnorum*
 Ash-throated, see *Myiarchus cinerascens*

- Dusky, see *Empidonax oberholseri*
 Fork-tailed, see *Tyrannus savana*
 Great Crested, see *Myiarchus crinitus*
 Hammond's, see *Empidonax hammondi*
 Least, see *Empidonax minimus*
 Olive-sided, see *Contopus borealis*
 Puerto Rican, see *Myiarchis antillarum*
 Willow, see *Empidonax traillii*
- Food habits, 689–696
 limitation, 852–859
 signals, 714–715
 supply, 324–331
- Foods, 959–962
- Foot webs, 721–723
- Foraging, 132–140, 157–167, 621–631, 729–731, 945–947, 953–955, 959–962
 behavior, 168–172, 453–458, 723–726, 731–734, 875–884
 ecology, 173–186
 methods, 20–28
 range, 214–219
 strategy, 233–236
- Forbes, M.R.L., and Ankney, C. D., Intraclutch variation in egg weights of Pied-billed Grebes, 709–711
- Forest-Falcon, Barred, see *Micrastur ruficollis*
 Lined, see *Micrastur gilvicollis*
- Fortner, Sharon, see Anderson, David J.
- Fox, Glen A., see Shugart, Gary W.
- Franklin, Alan B., Breeding biology of the Great Gray Owl in southeastern Idaho and northwestern Wyoming, 689–696
- Fraser, James D., see Coleman, John S.
- Fratercula arctica*, 966
cirrhata, 448
- Fregata magnificens*, 96
minor, 90–99, 225, 260
- French Guiana, 236–239
- Frigatebird, Great, see *Fregata minor*
 Magnificent, see *Fregata magnificens*
- Fringilla coelebs*, 151, 488, 509
- Frugivores, 761–772
- Fulica americana*, 512, 907
atra, 168, 327
- Furnarius rufus*, 301, 356
- G**
- Gadwall, see *Anas strepera*
 Galápagos, 505–507
Gallinago gallinago, 125
Gallinula chloropus, 125
 Gallinule, Purple, see *Porphyrrula martinica*
Gallus domesticus, 707
gallus, 187–192, 697–704
- Gaston, A. J., see Birkhead, T. R.
 Gaston, Anthony J., see Duncan, David C.
- Gehlbach, Frederick B., see McCallum, Archibald D.
- Gene flow, 637–647, 773–781
 Genetic distance, 428–445
 variation, 71–82
- Geographic variation, 473–477
- Geospiza conirostris*, 757
fortis, 506
- Geothlypis trichas*, 125, 150
- Gessaman, James A., and Nagy, Kenneth A., Transmitter loads affect the flight speed and metabolism of homing pigeons, 662–668
- Giant-Petrel, Northern, see *Macronectes halli*
 Southern, see *Macronectes giganteus*
- Giant sequoia, 359–372
- Giroux, Jean-François, and Bédard, Jean, Age differences in the fall diet of Greater Snow Geese in Quebec, 731–734
- Glaucidium gnoma*, 359–372
- Glenn, George S., see Robbins, Mark B.
- Gnatcatcher, Black-tailed, see *Polioptila melanura*
- Gochfeld, Michael, see Burger, Joanna
- Gochfeld, Michael, see Safina, Carl
- Goldcrest, see *Regulus regulus*
- Goldeneye, Common, see *Bucephala clangula*
- Goldfinch, American, see *Carduelis tristis*
- Goose, Cackling, see *Branta minima*
 Canada, see *Branta canadensis*
 Lesser Snow, see *Chen caerulescens*
 Snow, see *Chen caerulescens*
- Grackle, Greater Antillean, see *Quiscalus niger*
- Graham, Donald S., House Finch nest-site selection at Guelph, Ontario, 58–60
- Graham, Donald S., Responses of five host species to cowbird parasitism, 588–591
- Grallaria varia*, 238
- Granivory, 621–631
- Grassquit, Black-faced, see *Tiaris bicolor*
 Yellow-faced, see *Tiaris olivacea*
- Gratto, Cheri L., see Colwell, Mark A.
- Graves, Gary R., and Arango, Gonzalo, Nest-site selection, nest, and eggs of the Stout-billed Cinclodes (*Cinclodes excelsior*), a high Andean furnariid, 251–253
- Great Plains, 866–874
- Grebe, Atitlan, see *Podilymbus gigas*
 Clark's, see *Aechmophorus clarkii*
 Pied-billed, see *Podilymbus podiceps*
 Western, see *Aechmophorus occidentalis*
- Green sea turtles, 512–513
- Greenberg, Russell, Water as a habitat cue for breeding Swamp and Song sparrows, 420–427
- Gregg, Michael L., see Miller, Sherri L.
- Grosbeak, Black-headed, see *Pheucticus melanocephalus*
 Blue, see *Guiraca caerulea*
 Pine, see *Pinicola enucleator*
 Rose-breasted, see *Pheucticus ludovicianus*
- Groth, Jeffrey G., Resolution of cryptic species in Appalachian Red Crossbills, 745–760
- Ground-Dove, Ruddy, see *Columbina talpacoti*
- Ground-Finch, Medium, see *Geospiza fortis*
- Ground-nesting birds, 124–131
- Grouse, Blue, see *Dendragapus obscurus*
 Red, *Lagopus lagopus*
 Ruffed, see *Bonasa umbellus*
 Sage, see *Centrocercus urophasianus*
 Sharp-tailed, see *Tympanuchus phasianellus*
 Spruce, see *Dendragapus canadensis*
- Guam, 478–482
- Guatemala, 906–912

Guillemot, Black, see *Cephus grylle*

Pigeon, see *Cephus columba*

Guiraca caerulea, 118

Gull, Franklin's, see *Larus pipixcan*

Herring, see *Larus argentatus*

Kelp, see *Larus dominicanus*

Laughing, see *Larus atricilla*

Red-billed, see *Larus novaehollandiae*

Ring-billed, see *Larus delawarensis*

Western, see *Larus occidentalis*

Gygis alba, 225, 260

Gymnorhinus cyanocephalus, 201–213, 624

Gypaetus barbatus, 916

H

Habitat, 607–612

saturation, 100–106, 311–323

selection, 420–427, 583–587, 653–661, 875–884

Haftorn, Svein, Mehlum, Fridtjof, and Bech, Claus, Navigation to nest site in the Snow Petrel (*Papagodroma nivea*), 484–486

Halcyon cinamomina, 479

Haliaeetus leucocephalus, 916

Halobaena caerulea, 448

Handel, Colleen M., and Dau, Christian P., Seasonal occurrence of migrant Whimbrels and Bristle-thighed Curlews on the Yukon-Kuskokwim Delta, Alaska, 782–790

Haney, J. Christopher, and Stone, Amy E., Littoral foraging by Red Phalaropes during spring in the northern Bering Sea, 723–726

Hannon, Susan J., see Martin, Kathy

Harper, Lee H., see Klein, Bert C.

Harrier, Northern, see *Circus cyaneus*

Harris, M. P., see Wanless, S.

Harrison, Peter, and Jehl, Joseph R., Jr., Notes on the seabirds of Sala y Gomez, 259–261

Hatch, Martha A., see Hatch, Scott A.

Hatch, Scott A., and Hatch, Martha A., Colony attendance and population monitoring of Black-legged Kittiwakes on the Semidi Islands, Alaska, 613–620

Hatchability, 920–930

Hatching asynchrony, 709–711

Hatching mass, 332–338

Hawaii Island, 339–348

Hawk, Harris', see *Parabuteo unicinctus*

Hawaiian, see *Buteo solitarius*

Red-tailed, see *Buteo jamaicensis*

Swainson's, see *Buteo swainsoni*

Hawk-Eagle, African, see *Hieraetus spilogaster*

Ornate, see *Spizaetus ornatus*

Heat loss, 913–919

Hébert, Percy N., and Barclay, Robert M. R., Parental investment in Herring Gulls: Clutch apportionment and chick survival, 332–338

Heck, M. Katy, see Koenig, Walter D.

Heinrich, Bernd, Raven tool use, 270–271

Heinrich, Bernd, Why do ravens fear their food?, 950–952

Heitmeyer, Mickey E., Body composition of female Mallards in winter in relation to annual cycle events, 669–680

Heitmeyer, Mickey E., Protein costs of the prebasic molt of female Mallards, 263–266

Hejl, Sallie J., Verner, Jared, and Balda, Russell P., Weather and bird populations in true fir forests of the Sierra Nevada, California, 561–574

Hematocrit, 937–938

Hematology, 937–938

Hemignathus munroei, 345

virens, 344

Hemithraupis guira, 42

Hendricks, Paul, see McAuliffe, Joseph R.

Heritability, 83–89, 201–213

Heron, Great Blue, see *Ardea herodias*

Hiebert, Sara M., see Arcese, Peter

Hieraetus spilogaster, 583–587

Hill, Brad G., and Lein, M. Ross, Ecological relations of sympatric Black-capped and Mountain chickadees in southwestern Alberta, 875–884

Hill, Geoffrey E., Age, plumage brightness, territory quality, and reproductive success in the Black-headed Grosbeak, 379–388

Hill, Wendy L., The effect of food abundance on the reproductive patterns of coots, 324–331

Himatione sanguinea, 339–348

Hirundo fulva, 292

pyrrhonota, 503–505, 714–716, 953–955

Histrionicus histrionicus, 170

Hixon, Mark A., see Carpenter, F. Lynn

Hobson, Keith A., see Carter, Harry R.

Hoffenberg, Ann S., see Stouffer, Philip C.

Hole-nesting species, 241–245

Home range, 497–499

Homosexual, 933–935

Hornero, Rufous, see *Furnarius rufus*

Horvath, Eric G., and Sullivan, Kimberly A., Facultative migration in Yellow-eyed Juncos, 482–484

Host selection, 289–303

Howe, Marshall A., see Dunn, Peter O.

Howells, W. W., see Hustler, K.

Hummingbird, Allen's, see *Selasphorus sasin*

Andean Hillstar, see *Oreotrochilus estella*

Anna's, see *Calypte anna*

Antillean Crested, see *Orthorhynchus cristatus*

Blue-throated, see *Lampornis clemenciae*

Broad-tailed, see *Selasphorus platycerus*

Calliope, see *Stellula calliope*

Costa's, see *Calypte costae*

Rufous, see *Selasphorus rufus*

White-eared, see *Hylocharis leucotis*

Humphrey, Philip S., see Corbin, Kendall W.

Hunter, Laurie A., Status of the endemic Atitlan Grebe of Guatemala: Is it extinct?, 906–912

Hunter, William C., Ohmart, Robert D., and Anderson, Bertin W., Use of exotic saltcedar (*Tamarix chinensis*) by birds in arid riparian systems, 113–123

Hustler, K., and Howells, W. W., The effect of primary production on breeding success and habitat selection in the African Hawk-Eagle, 583–587

Hybridization, 716–717

Hylocharis leucotis, 235

Hylocichla mustelina, 178, 368

Hylopezus macularius, 238

Hylophilus aurantiifrons, 428–445

decurtatus, 428–445

hypoxanthus, 428–445

ochraceiceps, 428–445

poicilotis, 428–445

thoracicus, 428–445

Hyperoxic, 187–192

Hypoleucus auritus, 890

fuscicollis, 886

olivaceus, 887

varius, 890

I

Ibis, Sacred, see *Threskiornis aethiopicus*

White, see *Eudocimus albus*

Icteria virens, 118

Icteridae, 962–964

Icterids, 349–358

Icterus bonana, 301

chrysoccephalus, 301

dominicensis, 289

galbula, 5, 151, 354, 546–554

icterus, 289

nigrogularis, 301

Idaho, 689–696

Iiwi, see *Vestiaria coccinea*

Incubation, 459–472, 489–492, 721–723, 958–959

Indigobird, Village, see *Vidua chalybeata*

Individual variability, 29–39

Information center, 714–715, 953–955

Injuries, 942–945

Intergradation, 637–647

Interspecific competition, 875–884

 defense, 503–505

 interactions, 607–612

Intraspecific brood parasitism, 513–514

Iridoprocne bicolor, 928

Island endemics, 512–513

Ixobrychus exilis, 125

J

Jacana jacana, 931

spinosa, 931

Jacana, Northern, see *Jacana spinosa*

Wattled, see *Jacana jacana*

Jackson, S., Diets of the White-chinned Petrel and Sooty

Shearwater in the southern Buengela region, South Africa, 20–28

Jaeger, Pomarine, see *Stercorarius pomarinus*

James Bay, 141–156

James, Paul C., see Warkentin, Ian G.

Jay, Blue, see *Cyanocitta cristata*

Gray, see *Perisoreus canadensis*

Gray-breasted, see *Aphelocoma ultramarina*

Green, see *Cyanocorax yncas*

Pinyon, see *Gymnorhinus cyanocephalus*

Scrub, see *Aphelocoma coerulescens*

Siberian, see *Perisoreus infaustus*

Steller's, see *Cyanocitta stelleri*

Jehl, Joseph R., Jr., see Harrison, Peter

Johnson, Ned K., Zink, Robert M., and Marten, Jill

A., Genetic evidence for relationships in the avian family Vireonidae, 428–445

Johnston Atoll, 90–99

Jouventin, Pierre, see Weimerskirch, Henri

Junco, Dark-eyed, see *Junco hyemalis*

 Yellow-eyed, see *Junco phaeonotus*

Junco hyemalis, 107–112, 425, 504, 567

phaenotus, 482–484

K

Kattan, Gustavo, Food habits and social organization of Acorn Woodpeckers in Colombia, 100–106

Keane, Kathleen, see Massey, Barbara W.

Kerlinger, P., and Lein, M. Ross, Population ecology of Snowy Owls during winter on the Great Plains of North America, 866–874

Kestrel, American, see *Falco sparverius*

 European, see *Falco tinnunculus*

Killdeer, see *Charadrius vociferus*

Kingbird, Eastern, see *Tyrannus tyrannus*

 Gray, see *Tyrannus dominicensis*

 Western, see *Tyrannus verticalis*

Kinglet, Golden-crowned, see *Regulus satrapa*

Kirkpatrick, Roy L., see Servello, Frederick A.

Kittiwake, Black-legged, see *Rissa tridactyla*

Kiwi, Brown, see *Apteryx australis*

Klein, Bert C., and Bierregaard, Richard O., Movement and calling behavior of the Lined Forest-Falcon (*Micrastur gilvicollis*) in the Brazilian Amazon, 497–499

Klein, Bert C., Harper, Lee H., Bierregaard, Richard O., and Powell, George V. N., The nesting and feeding behavior of the Ornate Hawk-Eagle near Manaus, Brazil, 239–241

Kleptogamy, 245–246

Knight, Richard L., Effects of supplemental food on the breeding biology of the Black-billed Magpie, 956–958

Knight, Richard L., and Temple, Stanley A., Nest-defense behavior in the Red-winged Blackbird, 193–200

Knopf, Fritz L., see Sedgwick, James A.

Koenig, Walter D., and Heck, M. Katy, Ability of two species of oak woodland birds to subsist on acorns, 705–708

Kuritsubo, Amy R., see Miller, Sherri L.

L

Lagopus lagopus, 17, 245–246, 558

leucurus, 245

mutus, 17, 245

Lake Atitlán, 906–912

Lammergeier, see *Gypaetus barbatus*

Lampornis clemenciae, 235

Lanius collaris, 319

excubitorius, 319

Lark, Horned, see *Eremophila alpestris*

Larus argentatus, 128, 210, 332–338, 821, 933–935

atricilla, 506, 512

delawarensis, 934

dominicanus, 250, 447

- glaucescens*, 952
novaehollandiae, 210
occidentalis, 396, 934
pipixcan, 506
Laterallus albicularis, 607–612
exilis, 607–612, 931–933
jamaicensis, 611
Lein, M. Ross, see Hill, Brad G.
Lein, M. Ross, see Kerlinger, P.
Leiothrix, Red-billed, see *Leiothrix lutea*
Leiothrix lutea, 339–348
Le Maho, Yvon, see Cherel, Yves
Length of stay, 824–835
Lepidocolaptes affinis, 102
Leucocarbo bougainvillii, 891
capensis, 891
nigrogularis, 891
Leucosticte arctea, 572
Levey, D. J., see Stiles, F. G.
Limber pine, 621–631
Lipid reserves, 718–721
Lipids, 257–258
Livezey, Bradley C., see Corbin, Kendall W.
Lizard-Cuckoo, Puerto Rican, see *Saurothera vieilloti*
Local enhancement, 132–140
Locomotion cost, 662–668
Loiselle, Bette A., Bird abundance and seasonality in a Costa Rican lowland forest canopy, 761–772
Lombardo, Michael P., see Stouffer, Philip C.
Lonchura cucullata, 289
punctulata, 293
Longevity, 201–213
Lowland hardwood wetlands, 669–680
Loxia curvirostra, 362
leucoptera, 409–420
Loxigilla noctis, 301
portoricensis, 292
Loxops coccineus, 345
Lyrebird, Superb, see *Menura novaehollandiae*
Lyurus tetrix, 7
- M**
- Macaw, Blue-and-yellow, see *Ara ararauna*
MacInnes, Charles D., and Dunn, Erica H., Components of clutch size variation in arctic-nesting Canada Geese, 83–89
Macronectes giganteus, 887
halli, 448
Magpie, Black-billed, see *Pica pica*
Yellow-billed, see *Pica nuttalli*
Magrath, Robert D., Cold tolerance of European Blackbird embryos and nestlings, 958–959
Maher, William J., see Sutherland, James M.
Mahoney, Sheila A., see Jehl, Joseph R., Jr.
Maine, 824–835
Males, 492–496
Mallard, see *Anas platyrhynchos*
Malmborg, Patti Katusic, and Willson, Mary F., Foraging ecology of avian frugivores and some consequences for seed dispersal in an Illinois woodland, 173–186
Manitoba, 271–274
Mannikin, Bronze, see *Lonchura cucullata*
Nutmeg, see *Lonchura punctulata*
Margarops fuscatus, 293, 504
- Marsh birds, 420–427
Marshall, Joe T., Birds lost from a giant sequoia forest during fifty years, 359–372
Marten, Jill A., see Johnson, Ned K.
Martin, Caribbean, see *Progne dominicensis*
Purple, see *Progne subis*
Martin, John, Different feeding strategies of two sympatric hummingbird species, 233–236
Martin, Kathy, and Hannon, Susan J., Early pair and extra-pair copulations in Willow Ptarmigan, 245–246
Martin, Thomas E., and Roper, James J., Nest predation and nest-site selection of a western population of the Hermit Thrush, 51–57
Marzluff, John M., and Balda, Russell P., Pairing patterns and fitness in a free-ranging population of Pinyon Jays: What do they reveal about mate choice?, 201–213
Massey, Barbara W., Keane, Kathleen, and Boardman, Constance, Adverse effects of radio transmitters on the behavior of nesting Least Terns, 945–947
Massey, Barbara W., see Atwood, Jonathan L.
Mate choice, 193–200, 201–213
guarding, 546–554, 697–704
Mating behavior, 538–545
Maturation, 802–815
May, Terry A., see Dunn, Peter O.
McAuliffe, Joseph R., and Hendricks, Paul, Determinants of the vertical distributions of woodpecker nest cavities in the sahuaro cactus, 791–801
McCallum, D. Archibald, and Gehlbach, Frederick R., Nest-site preferences of Flammulated Owls in western New Mexico, 653–661
McCollough, Mark A., see Dunn, Peter O.
McKittrick, Mary C., and Zink, Robert M., Species concepts in ornithology, 1–14
McLaughlin, John F., see Ehrlich, Paul R.
Meadowlark, Eastern, see *Sturnella magna*
Pampas, see *Sturnella defilippi*
Western, see *Sturnella neglecta*
Mechanical clearing, 339–348
Mehlum, Fridtjof, see Haftorn, Svein
Melanerpes carolinus, 927
erythrocephalus, 927
formicivorus, 100–106, 241, 247, 504, 546, 705–708
lewis, 515
uropygialis, 791–801
Melanitta fusca, 467
perspicillata, 171
Melanopareia torquata, 40
Meleagris gallopavo, 702
Melospiza georgiana, 125, 420–427, 486
lincolni, 933
melodia, 44–50, 125, 255, 420–427, 486–489, 509, 588–591, 681
Menura novaehollandiae, 520
Merlin, see *Falco columbarius*
Metabolism, 913–919
Metabolizable energy, 836–842
Micrastur gilvicollis, 497–499
ruficollis, 497–499
Microcarbo africanus, 893
coronatus, 886

- melanoleucus*, 893
niger, 886
pygmaeus, 886
 Migration, 261–263, 373–378, 669–680, 782–790, 824–835, 866–874
 Migratory orientation, 267–270
 Miller, Sherri L., Gregg, Michael A., Kuritsubo, Amy R., Combs, Shawn M., Murdock, Mary K., Nilsson, John A., Noon, Barry R., and Botzler, Richard G., Morphometric variation in Tundra Swans: Relationships among sex and age classes, 802–815
 Mimicry, 486–489
Mimus polyglottos, 289, 592–606
saturninus, 41
 Mixed-species flock, 132–140
 group, 510–512
 Mockingbird, Chalk-browed, see *Mimus saturninus*
 Galápagos, see *Nesomimus macdonaldi* or *parvulus*
 Northern, see *Mimus polyglottos*
Molothrus aeneus, 301
ater, 42, 125, 253–256, 289, 349–358, 359–372, 504, 508, 514, 553, 588–591, 939–941
badius, 963
bonariensis, 40–43, 289–303
rufoaxillaris, 963
 Molt, 263–266, 669–680
 -migration overlap, 141–156
 Monoculture koa forest, 339–348
 Monophyly, 1–14
 Moorhen, Common, see *Gallinula chloropus*
Morphnus guianensis, 240
 Morphology, 20–28, 802–815
 Morphometrics, 71–82, 745–760
 Morris, J. A., see Wanless, S.
 Morrison, Douglas W., see Caccamise, Donald F.
 Morrison, Michael L., On sample sizes and reliable information, 275–278
 Mortality, 259–261
 Multivariate analysis, 90–99, 745–760, 802–815
 Murdock, Mary K., see Miller, Sherri L.
 Murre, Common, see *Uria aalge*
 Thick-billed, see *Uria lomvia*
 Murrelet, Ancient, see *Synthliboramphus antiquus*
 Mutualism, 173–186
Myadestes obscurus, 344
townsendi, 359
Mycteria americana, 917
Myiarchus antillarum, 289
cinerascens, 402
crinitus, 5
 Myna, Common, see *Acridotheres tristis*
Myrmornis torquata, 236–239
Myrmothera campanisona, 236–239
- N
- Nagy, Kenneth A., see Gessaman, James A.
Nannopterum harrisi, 886
 Naylor, Brian J., Szuba, Kandyd J., and Bendell, James F., Nest cooling and recess length of incubating Spruce Grouse, 489–492
 Nearctic forest migrants, 359–372
 Neophobia, 950–952
Neothraupis fasciata, 40–43
Nesocarbo bransfieldensis, 886
campbelli, 886
Nesofregetta fuliginosa, 359
Nesomimus macdonaldi, 727
parvulus, 506
 Nest, 236–239, 947–948
 -box placement, 920–930
 boxes, 61–71
 concealment, 51–57
 cooling, 489–492
 defense, 193–200
 desertion, 945–947
 distribution, 124–131
 orientation, 51–57
 -patch selection, 51–57
 predation, 51–57, 379–388, 478–482
 sites, 653–661
 -site competition, 241–245, 515–517
 -site selection, 51–57, 58–60, 734–738, 843–851, 875–884
 Nesting, 228–232, 239–241, 575–582, 948–950
 density, 956–958
 habitat, 311–323
 success, 51–57, 478–482
 Nestlings, 958–959
 Nevada, 515–517
 Nevado del Ruiz, 251–253
 New Mexico, 311–323, 379–388, 653–661
Nictiphrynus ocellatus, 932
 Nighthawk, Common, see *Chordeiles minor*
 Night-Heron, Yellow-crowned, see *Nycticorax violacea*
 Nilsson, John A., see Miller, Sherri L.
 Noddy, Black, see *Anous minutus*
 Blue-Gray, see *Procelsterna cerulea*
 Brown, see *Anous stolidus*
 Nonbreeding, 555–560
 Nonshivering thermogenesis, 529–537
 Nonterritorial, 492–496
 Noon, Barry R., see Miller, Sherri L.
 Normoxic, 187–192
 North America, 473–477
Notiochelidon murina, 252
Notocarbo albiventer, 891
atriceps, 886
bransfieldensis, 891
georgianus, 891
verrucosus, 891
Nucifraga columbiana, 270–271, 621–631
 Nuechterlein, Gary L., Parent-young vocal communication in Western Grebes, 632–636
Numenius phaeopus, 782–790
tahitiensis, 782–790
 Nutcracker, Clark's, see *Nucifraga columbiana*
 Nuthatch, European, see *Sitta europaea*
 Pygmy, see *Sitta pygmaea*
 Red-breasted, see *Sitta canadensis*
 White-breasted, see *Sitta carolinensis*
 Nutrient reserves, 459–472
Nyctea scandiaca, 866–874
 Nyctibiidae, 948–950
Nyctibius grandis, 948–950
Nycticorax violaceus, 860–865

O

- Oak-pine woodlands, 401–419
 Oaks, 705–708
Oceanites oceanicus, 250
Oceanodroma leucorhoa, 484
 O'Connell, M. J., see Croxall, J. P.
 Ohmart, Robert D., see Hunter, William C.
 Oilbird, see *Steatornis caripensis*
 Oldsquaw, see *Clangula hyemalis*
 Olfactory navigation, 484–486
 Olson, John M., Dawson, William R., and Camilliere, James J., Fat from Black-capped Chickadees: Avian brown adipose tissue?, 529–537
 Omao, see *Myadestes obscurus*
 O'Neil, Thomas A., Controlled pool elevation and its effects on Canada Goose productivity and nest location, 228–232
Opornis formosus, 269
Oreortyx pictus, 359–372
Oreoscoptes montanus, 356
Oreotrochilus estella, 373
 Oring, Lewis W., see Colwell, Mark A.
 Oriole, Black-cowled, see *Icterus dominicensis*
 Martinique, see *Icterus bonana*
 Moriche, see *Icterus chrysocephalus*
 Northern, see *Icterus galbula*
 Yellow, see *Icterus nigrogularis*
 Ortega, Catherine P., and Cruz, Alexander, Mechanisms of egg acceptance by marsh-dwelling blackbirds, 349–358
Orthorhynchus cristatus, 295
 Osprey, see *Pandion haliaetus*
 Osteology, 885–905
Otus asio, 648–652, 657
 bakkamoena, 651
 flammeolus, 359–372, 651, 653–661
 kennicottii, 363
 nudipes, 292
 Owl, Boreal, see *Aegolius funereus*
 Burrowing, see *Athene cunicularia*
 Collared Scops, see *Otus bakkamoena*
 Flammulated, see *Otus flammeolus*
 Great Gray, see *Strix nebulosa*
 Great Horned, see *Bubo virginianus*
 Spotted, see *Strix occidentalis*
 Ural, see *Strix uralensis*
 Oxygen consumption, 913–919
 Oxygen-limitation hypothesis, 187–192
Oxyura jamaicensis, 168–172

P

- Pacific Islands, 478–482
 Packed cell volume, 937–938
Pagodroma nivea, 484–486
 Pair bond, 201–213
 formation, 669–680
Pallasicarbo perspicillatus, 886
 Panama, 681–688
Pandion haliaetus, 512, 857, 917, 953
 Papua New Guinea, 538–545
Parabuteo unicinctus, 311–323
 Parakeet, Rufous-fronted, see *Bolborhynchus ferrugineifrons*
 Parasitic icterids, 962–964
 Parasitism, 588–591

- Parental care, 29–39, 193–200
 investment, 332–338

Parmelee, David F., and Parmelee, Jean M., Ravens observed killing roosting kittiwakes, 952

Parotia Lawesii, see *Parotia lawesii*

Parotia lawesii, 538–545

Partridge, Gray, see *Perdix perdix*

Parula pitiayuma, 428

Parula, Tropical, see *Parula pitiayumi*

Parus ater, 882

- atricapillus*, 37, 529–537, 875–884
- bicolor*, 132–140
- caeruleus*, 133, 707, 882
- carolinensis*, 132–140, 882
- gambeli*, 64, 275, 570, 875–884
- hudsonicus*, 882
- inornatus*, 402, 604
- major*, 37, 61–71, 124, 133, 152, 327, 386, 488, 491
- montanus*, 152, 491
- palustris*, 133, 248
- rufescens*, 275, 882

- Passer domesticus*, 504, 515, 546, 752
Passerculus sandwichensis, 267
Passerella iliaca, 11, 362
Passerina ciris, 118

cyanea, 48, 299, 546, 594

Pecos River, 113–123

Pelecanus erythrorhynchos, 721–723
 occidentalis, 721

Pelican, American White, see *Pelecanus erythrorhynchos*

Brown, see *Pelecanus occidentalis*

Penguin, Chinstrap, see *Pygoscelis antarctica*

Gento, see *Pygoscelis papua*

Jackass, see *Spheniscus demersus*

King, see *Aptenodytes patagonicus*

Macaroni, see *Eudyptes chrysolophus*

Pennsylvania, 420–427

Perdix perdix, 304–310, 873

Perisoreus canadensis, 247–249, 504
 inaequalis, 247

Petrel, Antarctic, see *Thalassoica antarctica*

Blue, see *Halobaena caerulea*

Kerguelan, see *Pterodroma brevirostris*

Leach's, see *Oceanodroma leucorhoa*

Snow, see *Pagodroma nivea*

White-chinned, see *Procellaria aequinoctialis*

Phaethon rubricauda, 259

Phalacrocoracidae, 885–905

Phalacrocoracinae, 885–905

Phalacrocorax albiventer, 220–227

aristotelis, 210, 220, 395

atriceps, 220–227, 399

auritus, 395–400

capillatus, 890

carbo, 222, 887

coronatus, 395

gaimardi, 225

megallicanus, 220

neglectus, 225

penicillatus, 395–400

Phalarope, Red, see *Phalaropus fulicaria*

Red-necked, see *Phalaropus lobatus*

Wilson's, see *Phalaropus tricolor*

- Phalaropus fulicaria*, 723–726
lobatus, 725
tricolor, 942
Pharomachrus antisianus, 102
auriceps, 102
Pheucticus ludovicianus, 125, 505–507
melanocephalus, 45, 379–388
 Philopatry, 389–394
Phlegopsis nigromaculata, 237
 Phoebe, Black, see *Sayornis nigricans*
Phoebeira fusca, 214
palpebrata, 214
Phylloscopus trochilus, 152
 Phylogenetic inference, 428–445
 relationships, 773–781
 Phylogenetics, 885–905
Pica pica, 29–39, 248, 428, 552, 735, 956–958
nuttalli, 36, 552
 Picman, Jaroslav, Experimental study of predation on eggs of ground-nesting birds: Effects of habitat and nest distribution, 124–131
 Picman, Jaroslav, and Belles-Isles, Jean-Claude, Evidence for intraspecific brood parasitism in the House Wren, 513–514
 Picman, Jaroslav, see Schaeff, Catherine
Picoides albolarvatus, 365, 563
pubescens, 132–140
villosus, 359–372, 563, 654
Piculus rivolii, 102
 Pigeon, White-crowned, see *Columba leucocephala*
 Pimentel, Thais Martins, see Cavalcanti, Roberto B.
Pinicola enucleator, 152
 Piñon pine, 621–631
Pipilo aberti, 4, 71
albicollis, 4, 71
chlorurus, 74
erythrophthalmus, 48, 515
fuscus, 4, 71–82, 403, 503
 Pipit, Water, see *Anthus spinolella*
Piranga rubra, 118
 Plastic pollution, 446–452
 Playback, 648–652
Ploceus cucullatus, 491
 Plover, Greater Golden-, see *Pluvialis apricaria*
 Plumage brightness, 379–388
 maturation, 729–731
Pluvialis apricaria, 386
 Pochard, Common, see *Aythya ferina*
Podilymbus podiceps, 709–711
Poephila guttata, 509
Polioptila melanura, 119
 Polygyny, 241–245
 Ponderosa pine forests, 61–71
 Poorwill, Ocellated, see *Nictiphrynus ocellatus*
 Popp, James W., Scanning behavior of finches in mixed-species groups, 510–512
 Population biology, 61–71
 monitoring, 613–620
 genetic structure, 637–647, 773–781
Porphyrrula martinica, 240, 506
Porzana carolina, 125, 326
 Potoo, Great, see *Nyctibius grandis*
 Powell, George V. N., see Klein, Bert C.
 Power, Harry W., see Stouffer, Philip C.
 Prebasic molt, 141–156
- Precocity, 718–721
 Predation, 58–60, 503–505, 935–937
 Predatory behavior, 952
 Preservation, 500–503
 Prey capture rate, 157–167
 complex, 860–865
 delivery, 816–823
 Primary production, 583–587
 Prion, Antarctic, see *Puffinus desolata*
 Broad-billed, see *Puffinus vittata*
Procellaria aequinoctialis, 20–28, 448
Procelsterna cerulea, 260
 Productivity, 228–232
Progne dominicensis, 292
subis, 37, 154, 504, 730
 Protein concentration, 937–938
 costs, 263–266
 polymorphism, 637–647, 773–781
 Proteins, 257–258
Protonotaria citrea, 519
 Pruett-Jones, M. A., see Pruett-Jones, S. G.
 Pruett-Jones, S. G., and Pruett-Jones, M. A., The use of court objects by Lawes' Parotia, 538–545
Psaltriparus minimus, 402
 Ptarmigan, Rock, see *Lagopus mutus*
 White-tailed, see *Lagopus leucurus*
 Willow, see *Lagopus lagopus*
Pterodroma brevirostris, 448
Ptilorus paradiseus, 543
victoriae, 543
Ptychoramphus aleuticus, 719
 Puerto Rico, 289–303, 843–851
 Puffin, Atlantic, see *Fratercula arctica*
 Common, see *Fratercula arctica*
 Tufted, see *Fratercula cirrhata*
Puffinus auricularis, 512
desolata, 447
gravus, 26
griseus, 20–28, 450, 506
nativitatis, 259
tenuirostris, 447
vittata, 447
 Pygmy-Owl, Northern, see *Glaucidium gnoma*
Pygoscelis antarctica, 157, 249–250
papua, 157–167
Pyrrhula pyrrhula, 151, 263
- Q**
- Quail, California, see *Callipepla californica*
 Coturnix, see *Coturnix coturnix*
 Mountain, see *Oreotyx pictus*
 Québec, 731–734
Quercus humboldtii, 100–106
Quiscalus niger, 289
quiscula, 125, 175, 458, 518, 710
- R**
- Radiotelemetry, 662–668, 945–947
 Rahn, H., Curran-Everett, Linda, and Booth, D. T., Eggshell differences between parasitic and non-parasitic Icteridae, 962–964
 Rail, Black, see *Laterallus jamaicensis*
 Clapper, see *Rallus longirostris*
 Light-footed Clapper, see *Rallus longirostris*
 Virginia, see *Rallus limicola*
 Yuma Clapper, see *Rallus longirostris*

- Rainforest, 761–772
Rallus limicola, 125
longirostris, 959–962
 Randomization test, 201–213
 Raptor censuses, 866–874
 Rare songs, 592–606
 Rasmussen, Pamela C., Stepwise molt of remiges in Blue-eyed and King shags, 220–227
 Ratti, John T., see Rotella, Jay J.
 Raven, Northern, see *Corvus corax*
 Razorbill, see *Alca torda*
 Recess length, 489–492
 Recurrence interval, 592–606
 Red fir, 561–574
 Redhead, see *Aythya americana*
 Redpoll, Common, see *Carduelis flammea*
 Lesser, see *Carduelis flammea*
 Redwing, see *Turdus iliacus*
 Reed-Bunting, Common, see *Emberiza schoeniclus*
Regulus regulus, 491
 satrapa, 359
 Rehder, N. B., Bird, D. M., and Sanford, L. M., Plasma androgen levels and body weights for breeding and nonbreeding male American Kestrels, 555–560
 Rejecters, 349–358
 Remington, T. E., and Braun, C. E., Carcass composition and energy reserves of Sage Grouse during winter, 15–19
 Removal experiment, 492–496
 Rensel, Jack A., and White, Clayton M., First description of hybrid Blue X Sage grouse, 716–717
 Repertoire, 681–688
 Reproductive patterns, 324–331
 Resource localization, 311–323
 partitioning, 214–219, 791–801
 Return rates, 942–945
 Revillagigedo Islands, 512–513
 Riflebird, Paradise, see *Ptilorus paradiseus*
 Queen Victoria's, see *Ptilorus victoriae*
 Rimmer, Christopher C., Timing of the definitive pre-basic molt in Yellow Warblers at James Bay, Ontario, 141–156
 Rio Grande, 113–123
Riparia riparia, 552, 953–955
 Riparian, 113–123
Rissa tridactyla, 201, 613–620, 725, 934, 952
 Ritchison, Gary, Cavanagh, Paul M., Belthoff, James R., and Sparks, Earl J., The singing behavior of Eastern Screech-Owls: Seasonal timing and response to playback of conspecific song, 648–652
 Ritter, Lyman V., see Verner, Jared
 Robbins, Mark B., and Glenn, George S., First description of the nest and eggs of the Moss-backed Tanager (*Butyrupis [Bangsia] edwardsi*), 947–948
 Robin, American, see *Turdus migratorius*
 European, see *Erythacus rubecula*
 Rogers, Christopher M., see Webb, D. R.
 Romagnano, Linda C., see Stouffer, Philip C.
 Roost, 395–400, 453–458
 Roosting, 952
 Roper, James J., see Martin, Thomas E.
 Rotella, Jay J., and Ratti, John T., Seasonal variation in Gray Partridge vocal behavior, 304–310
Rupicola rupicola, 702
 Ryan, Peter G., Intraspecific variation in plastic ingestion by seabirds and the flux of plastic through seabird populations, 446–452
- S**
- Safina, Carl, Burger, Joanna, Gochfeld, Michael, and Wagner, Richard H., Evidence for prey limitation of Common and Roseate tern reproduction, 852–859
Saguinus fuscicollis, 240
Sahuaro cactus, 791–801
 Sakai, Howard F., Avian response to mechanical clearing of a native rainforest in Hawaii, 339–348
 Sala y Gomez, 259–261
 Salt marsh, 959–962
 Saltcedar, 113–123
 Sandberg, Roland, Skylight polarization does not affect the migratory orientation of European Robins, 267–270
 Sandpiper, Curlew, see *Calidris ferruginea*
 Semipalmed, see *Calidris pusilla*
 Solitary, see *Tringa solitaria*
 Spotted, see *Actitis macularia*
 Western, see *Calidris mauri*
 Sanford, L. M., see Rehder, N. B.
 Sapsucker, Yellow-bellied, see *Sphyrapicus varius*
 Saskatchewan, 734–738
Satrapa icterophrys, 5
Sauvathera vieilloti, 298
Saxicola torquata, 198
Sayornis nigricans, 363
 Scanlon, Patrick F., see Coleman, John S.
 Scanning, 510–512
 Scatterhoard, 247–249
 Scua, Greater, see *Aythya marila*
 Lesser, see *Aythya affinis*
 Schaeff, Catherine, and Picman, Jaroslav, Destruction of eggs by Western Meadowlarks, 935–937
 Schreiber, Elizabeth Anne, and Schreiber, Ralph W., Great Frigatebird size dimorphism on two Central Pacific atolls, 90–99
 Schreiber, Ralph W., see Schreiber, Elizabeth Anne
Scolopax minor, 125
 Scoter, Surf, see *Melanitta perspicillata*
 White-winged, see *Melanitta fusca*
 Screech-Owl, Eastern, see *Otus asio*
 Puerto Rican, see *Otus nudipes*
 Western, see *Otus kennicottii*
 Seabirds, 257–258, 259–261, 446–452, 852–859
 Sealy, Spencer G., Aggressiveness in migrating Cape May Warblers: Defense of an aquatic food source, 271–274
 Seasonality, 761–772
 Sedgwick, James A., and Knopf, Fritz L., A high incidence of Brown-headed Cowbird parasitism of Willow Flycatchers, 253–256
 Seed dispersal, 173–186
Seiurus noveboracensis, 152, 268, 271, 368
Selasphorus platycerus, 373
 rufus, 233–236, 374
 sasin, 235
 Semel, Brad, Sherman, Paul W., and Byers, Steven M.,

- Effects of brood parasitism and nest-box placement on Wood Duck breeding ecology, 920–930
- Servello, Frederick A., and Kirkpatrick, Roy L., Nutrition and condition of Ruffed Grouse during the breeding season in southwestern Virginia, 836–842
- Sex ratio, 933–935
- Sexual dimorphism, 90–99, 745–760, 802–815
- Shag, Blue-eyed, see *Phalacrocorax atriceps*
- Cape, see *Leucocarbo capensis*
 - Chatham Island, see *Stictocarbo featherstoni*
 - European, see *Phalacrocorax aristotelis*
 - Guanay, see *Leucocarbo bougainvillii*
 - Kerguelen, see *Notocarbo verrucosus*
 - King, see *Phalacrocorax albiventer*
 - Red-legged, see *Phalacrocorax gaimardi* or *Stictocarbo gaimardi*
 - Rock, see *Phalacrocorax magellanicus*
 - Socotra, see *Leucocarbo nigrogularis*
 - Spotted, see *Stictocarbo punctatus*
- Shearwater, Christmas, see *Puffinus nativitatis*
- Greater, see *Puffinus gravis*
 - Short-tailed, see *Puffinus tenuirostris*
 - Sooty, see *Puffinus griseus*
 - Townsend's, see *Puffinus auricularis*
- Sherman, Paul W., see Semel, Brad
- Shorebirds, 824–835, 942–945
- Shrike, Fiscal, see *Lanius collaris*
- Gray-backed Fiscal, see *Lanius excubitorius*
- Shugart, Gary W., Fitch, Mary A., and Fox, Glen A., Female pairing: A reproductive strategy for Herring Gulls, 933–935
- Sialia currucoides*, 515, 552, 654
- mexicana*, 61–71, 365, 515, 654
 - sialis*, 37, 928, 943
- Siegel-Causey, Douglas, Phylogeny of the Phalacrocoracidae, 885–905
- Sierra Nevada, 561–574
- Singing behavior, 648–652
- organization, 681–688
- Siskin, Pine, see *Carduelis pinus*
- Site fidelity, 389–394
- selection, 653–661
- Sitta canadensis*, 359
- carolinensis*, 64, 132–140
 - europaea*, 67
 - pygmaea*, 61–71, 504
- Skylark, see *Alauda arvensis*
- Saylight polarization, 267–270
- Snags and wildlife, 359–372
- Snake predation, 478–482
- Snipe, Common, see *Gallinago gallinago*
- Social attraction, 575–582
- behavior, 546–554, 729–731
 - facilitation, 132–140
- Solitaire, Townsend's, see *Myadestes townsendi*
- Somateria mollissima*, 171, 469
- Song, 486–489, 681–688
- learning, 44–50
 - presentation, 592–606
 - repertoires, 592–606
 - sequences, 681–688
 - types, 592–606, 648–652
- Songs, 508–510
- Songthrush, see *Turdus philomelos*
- Sonograms, 304–310
- Sonoran Desert, 791–801
- Sora, see *Porzana carolina*
- Southern Africa, 446–452
- Sparks, Earl J., see Ritchison, Gary
- Sparrow, Chipping, see *Spizella passerina*
- Field, see *Spizella pusilla*
 - Fox, see *Passerella iliaca*
 - Grassland, see *Ammodramus humeralis*
 - House, see *Passer domesticus*
 - Lincoln's, see *Melospiza lincolni*
 - Rufous-collared, see *Zonotrichia capensis*
 - Savannah, see *Passerculus sandwichensis*
 - Song, see *Melospiza melodia*
 - Swamp, see *Melospiza georgiana*
 - White-crowned, see *Zonotrichia leucophrys*
 - White-throated, see *Zonotrichia albicollis*
- Sparrowhawk, Eurasian, see *Accipiter nisus*
- Speciation, 1–14, 71–82
- Species concepts, 1–14
- limits, 71–82
 - richness, 339–348
- Specimens, 931–933
- Sperm competition, 697–704
- Spheniscus demersus*, 157
- Sphyrapicus varius*, 365, 880
- Spindalis zana*, 293
- Spirit specimens, 500–503
- Spizaetus ornatus*, 239–241
- Spizella passerina*, 362, 588–591
- pusilla*, 124
- Spot mapping, 401–419
- Spring nutrition, 836–842
- St. Lawrence Island, 723–726
- Staging area, 453–458, 824–835
- Stahl, Jean Claude, see Weimerskirch, Henri
- Starling, European, see *Sturnus vulgaris*
- Starvation, 270–271
- Steamer-Duck, Flying, see *Tachyeres patachonicus*
- Steatornis caripensis*, 932
- Stellula calliope*, 233–236
- Stercorarius pomarinus*, 932
- Sterna albifrons*, 389
- anaethetus*, 850
 - antillarum*, 389–394, 575–582, 945–947
 - dougallii*, 847–851, 852–859, 945
 - fuscata*, 260, 844, 932
 - hirundo*, 505, 710, 843–851, 852–859, 945
 - paradisaea*, 210
- Stictocarbo aristotelis*, 891
- featherstoni*, 886
 - gaimardi*, 891
 - magellanicus*, 891
 - pelagicus*, 891
 - punctatus*, 891
 - urile*, 891
- Stiles, F. Gary, Notes on the distribution and status of certain birds in Costa Rica, 931–933
- Stiles, F. G., and Levey, D. J., The Gray-breasted Crake (*Laterallus exilis*) in Costa Rica: Vocalizations, distribution, and interactions with White-throated Crakes (*L. albicularis*), 607–612
- Stoddard, Philip Kraft, see Arcese, Peter
- Stoddard, Philip Kraft, The “bugs” call of the Cliff

- Swallow: A rare food signal in a colonially nesting bird species, 714–715
- Stoleson, Scott H., see Curry, Robert L.
- Stone, Amy E., see Haney, J. Christopher
- Stonechat, see *Saxicola torquata*
- Stopover sites, 271–274
- Stork, Wood, see *Mycteria americana*
- Storm-Petrel, White-throated, see *Nesofregetta fuliginosa*
- Stouffer, Philip C., Romagnano, Linda C., Lombardo, Michael P., Hoffenberg, Ann S., and Power, Harry W., A case of communal nesting in the European Starling, 241–245
- Streptopelia bitorquata*, 478–482
- Strix nebulosa*, 689–696
 occidentalis, 359–372
 uralensis, 650
- Sturnella defilippii*, 301
 magna, 125, 602, 936
 neglecta, 604, 935–937
- Sturnus vulgaris*, 241–245, 453–458, 503–505, 515–517
- Stutchbury, Bridget J., Evidence that Bank Swallow colonies do not function as information centers, 953–955
- Subspecies, 1–14, 637–647, 773–781
- Sula dactylatra*, 220, 260, 512
 sula, 260, 512
- Sullivan, Kimberly A., see Horvath, Eric G.
- Supplemental food, 956–958
- Surf feeding, 723–726
- Survival, 939–941
- Swallow, Bank, see *Riparia riparia*
 Brown-bellied, see *Notiochelidon murina*
 Cave, see *Hirundo fulva*
 Cliff, see *Hirundo pyrrhonota*
 Tree, see *Tachycineta bicolor*
 Violet-green, see *Tachycineta thalassina*
- Swan, Bewick's, see *Cygnus columbianus*
 Black, see *Cygnus atratus*
 Mute, see *Cygnus olor*
 Trumpeter, see *Cygnus buccinator*
 Tundra, see *Cygnus columbianus*
- Swift, Kendra, see Williams, Joseph B.
- Swiftlet, White-bellied, see *Collocalia esculenta*
- Synthliboramphus antiquus*, 718, 965–966
- Systematics, 885–905
- Szuba, Kandyd J., and Bendell, James F., Nonterritorial males in populations of Spruce Grouse, 492–496
- Szuba, Kandyd J., see Naylor, Brian J.
- T
- Tachycineta bicolor*, 515, 518, 519
 thalassina, 61–71
- Tachyeres brachypterus*, 773–781
 leucocephalus, 773–781
 patachonicus, 773–781
 pteneres, 773–781
- Tamarin, Saddle-backed, see *Saguinus fuscicollis*
- Tanager, Guira, see *Hemithraupis guira*
 Moss-backed, see *Buthraupis [Bangsia] edwardsi*
 Palm, see *Thraupis palmarum*
 Sayaca, see *Thraupis sayaca*
- Stripe-headed, see *Spindalis zena*
- Summer, see *Piranga rubra*
- White-banded, see *Neothraupis fasciata*
- White-rumped, see *Cypsnagra hirundinacea*
- Tannins, 705–708
- Teal, Blue-winged, see *Anas discors*
 Green-winged, see *Anas crecca*
- Temperature regulation, 913–919
- Temple, Stanley A., see Knight, Richard L.
- Tern, Arctic, see *Sterna paradisaea*
 Black, see *Chlidonias niger*
 Bridled, see *Sterna anaethetus*
 Common, see *Sterna hirundo*
 Fairy, see *Gygis alba*
 Least, see *Sterna antillarum*
 Little, see *Sterna albifrons*
 Roseate, see *Sterna dougallii*
- Terrill, Scott B., and Crawford, Robert L., Additional evidence of nocturnal migration by Yellow-rumped Warblers in winter, 261–263
- Territoriality, 44–50, 61–71, 233–236, 271–274
- Testosterone, 44–50
- Thamnophilidae, 236–239
- Thermal tolerance, 958–959
- Thermoregulation, 107–112, 395–400
- Thrasher, Brown, see *Toxostoma rufum*
 Crissal, see *Toxostoma dorsale*
 Pearly-eyed, see *Margarops fuscatus*
 Sage, see *Oreoscoptes montanus*
- Thraupis palmarum*, 41
 sayaca, 41
- Thrush, Hermit, see *Catharus guttatus*
 Red-legged, see *Turdus plumbeus*
 Swainson's, see *Catharus ustulatus*
- Thryomanes bewickii*, 402, 604
- Thryothorus ludovicianus*, 594
- Tiarus bicolor*, 293
 olivacea, 293
- Time budgets, 613–620
- Timing of breeding, 83–89
- Tit, Blue, see *Parus caeruleus*
 Coal, see *Parus ater*
 Great, see *Parus major*
 Marsh, see *Parus palustris*
 Willow, see *Parus montanus*
- Titmouse, Plain, see *Parus inornatus*
- Todd, Frank S., Weddell seal preys on Chinstrap Penguin, 249–250
- Tome, Michael W., and Wrubleski, Dale A., Underwater foraging behavior of Canvasbacks, Lesser Scaups, and Ruddy Ducks, 168–172
- Tool use, 270–271
- Torpor, 373–378
- Tostain, Olivier, and Dujardin, Jean-Luc, Nesting of the Wing-banded Antbird and the Thrush-like Antpitta in French Guiana, 236–239
- Toucanet, Emerald, see *Aulacorhynchus prasinus*
- Tower kills, 261–263
- Towhee, Abert's, see *Pipilo aberti*
 Brown, see *Pipilo fuscus*
 Rufous-sided, see *Pipilo erythrrophthalmus*
 White-throated, see *Pipilo albicollis*
- Toxostoma crissale*, 356
 dorsale, 118
 rufum, 356

- Trainer, Jill M., Singing organization during aggressive interactions among male Yellow-rumped Caiques, 681–688
- Transects, 401–419
- Transition matrix, 681–688
- Trawler offal, 20–28
- Tringa flavipes*, 512
 solitaria, 272
- Troglodytes aedon*, 52, 64, 125, 301, 359–372, 513–514, 515
 tanneri, 512–515
 troglodytes, 359–372
- Tropical, 761–772
 biology, 843–851
- Tropicbird, Red-tailed, see *Phaethon rubricauda*
- Troupial, see *Icterus icterus*
- Troy, Declan M., see Day, Robert H.
- Turdus iliacus*, 152
 merula, 133, 151, 687, 958–959
 migratorius, 176, 354, 958
 philomelos, 133
 plumbeus, 289
- Tympanuchus phasianellus*, 716
- Tyrannus dominicensis*, 289
 savanna, 40–43
 tyrannus, 5, 356, 506
 verticalis, 356
- Tyrant, Yellow-browed, see *Satrapa flaviventris*
- U
- Uraeginthus bengalus*, 552
- Urban, 734–738
- Uria aalge*, 816–823, 966
 lomvia, 716, 966
- Uric acid, 257–258
- Utah, 716–717
- V
- Vander Wall, Stephen B., Foraging of Clark's Nutcrackers on rapidly changing pine seed resources, 621–631
- Vanderwerf, Eric A., Observations on the nesting of the Great Potoo (*Nyctibius grandis*) in central Venezuela, 948–950
- Venezuela, 948–950
- Verdin, see *Auriparus flaviceps*
- Vermivora celata*, 150
 luciae, 119
- Verner, Jared, and Ritter, Lyman V., A comparison of transects and spot mapping in oak-pine woodlands of California, 401–419
- Verner, Jared, see Hejl, Sallie J.
- Versatility, 592–606
- Vestiaria coccinea*, 347
- Vidua chalybaeta*, 686
- Vigilance, 510–512
- Vireo, Black-capped, see *Vireo atricapillus*
 Black-whiskered, see *Vireo altiloquus*
 Red-eyed, see *Vireo olivaceus*
- Vireo altiloquus*, 289
 atricapillus, 359–372
 bellii, 430
 carmioli, 428–445
- chivi*, 428–445
 flavifrons, 428–445
 flavoviridis, 428–445
 gilvus, 428–445
 huttonii, 428–445
 leucophrys, 428–445
 olivaceus, 430, 588–591
 philadelphicus, 430
 solitarius, 428–445
 vicinior, 430
- Vireolanius leucotis*, 430
- Vireonidae, 428–445
- Vocalization, 304–310, 607–612, 632–636
- Volcanism, 251–253
- Vulture, Black, see *Coragyps atratus*
 Greater Yellow-headed, see *Cathartes melambrotus*
- Turkey, see *Cathartes aura*
- W
- Wagner, Richard H., see Safina, Carl
- Waite, Thomas A., A field test of density-dependent survival of simulated Gray Jay caches, 247–249
- Waite, Thomas A., and Grubb, Thomas C., Jr., Copying of foraging locations in mixed-species flocks of temperate-deciduous woodland birds: An experimental study, 132–140
- Wanless, S., Harris, M. P., and Morris, J. A., The effect of radio transmitters on the behavior of Common Murres and Razorbills during chick rearing, 816–823
- Warbler, Blackpoll, see *Dendroica striata*
 Cape May, see *Dendroica tigrina*
 Golden-crowned, see *Basileuterus culicivorus*
 Great Reed, see *Acrocephalus arundinaceus*
 Kentucky, see *Oporornis formosus*
 Lucy's, see *Vermivora luciae*
 Marsh, see *Acrocephalus palustris*
 Orange-crowned, see *Vermivora celata*
 Palm, see *Dendroica palmarum*
 Prairie, see *Dendroica discolor*
 Prothonotary, see *Protonotaria citrea*
 Reed, see *Acrocephalus scirpaceus*
 Sedge, see *Acrocephalus schoenobaenus*
 Willow, see *Phylloscopus trochilus*
 Wilson's, see *Wilsonia pusilla*
 Yellow, see *Dendroica petechia*
 Yellow-rumped, see *Dendroica coronata*
- Warkentin, Ian G., and James, Paul C., Nest-site selection by urban Merlins, 734–738
- Washington, 304–310
- Waterthrush, Northern, see *Seiurus noveboracensis*
- Watts, Bryan D., Foraging implications of food usage patterns in Yellow-crowned Night-Herons, 860–865
- Waxwing, Cedar, see *Bombycilla cedrorum*
- Weather and migration, 261–263
- Weaver, Village, see *Ploceus cucullatus*
- Webb, D. R., and Rogers, Christopher M., Nocturnal energy expenditure of Dark-eyed Juncos roosting in Indiana during winter, 107–112
- Weddell seal, 249–250
- Weimerskirch, Henri, Bartle, John Alexander, Jouventin, Pierre, and Stahl, Jean Claude, Foraging

- ranges and partitioning of feeding zones in three species of southern albatrosses, 214-219
- Weitzel, Norman H., Nest-site competition between the European Starling and native breeding birds in northwestern Nevada, 515-517
- Whimbrel, see *Numenius phaeopus*
- White, Clayton M., see Rensel, Jack A.
- White-eye, Japanese, see *Zosterops japonicus*
- White fir, 561-574
- Wiley, James W., Host selection by the Shiny Cowbird, 289-303
- Wilkie, Patricia J., see Corbin, Kendall W.
- Willet, see *Catoptrophorus semipalmatus*
- Williams, Joseph B., and Swift, Kendra, Oxygen consumption and growth of Northern Bobwhite embryos under normoxic and hyperoxic conditions, 187-192
- Willson, Mary F., see Malmborg, Patti Katusic
- Wilsonia pusilla*, 362
- Wind, 58-60
- Winter, 15-19, 107-112, 669-680
- Winter ecology, 866-874
flock stability, 482-484
movements, 261-263
territoriality, 359-372
- Wintering ecology, 263-266
- Woodcock, American, see *Scolopax minor*
- Woodcreeper, Spot-crowned, see *Lepidocolaptes affinis*
- Woodpecker, Acorn, see *Melanerpes formicivorus*
Gila, see *Melanerpes uropygialis*
Hairy, see *Picoides villosus*
Lewis's, see *Melanerpes lewisi*
Pileated, see *Dryocopus pileatus*
Red-bellied, see *Melanerpes carolinus*
Red-headed, see *Melanerpes erythrocephalus*
White-headed, see *Picoides albolarvatus*
- Wood-Pewee, Eastern, see *Contopus virens*
- Wren, Bewick's, see *Thryomanes bewickii*
- Cactus, see *Campylorhynchus brunneicapillus*
- Carolina, see *Thryothorus ludovicianus*
- Clarion, see *Troglodytes tanneri*
- House, see *Troglodytes aedon*
- Sedge, see *Cistothorus platensis*
- Winter, see *Troglodytes troglodytes*
- Wrubleski, Dale A., see Tome, Michael W.
- Wyoming, 689-696
- X**
- Xanthocephalus xanthocephalus*, 325, 349-358, 426, 651
- Y**
- Yellowlegs, Lesser, see *Tringa flavipes*
- Yellowthroat, Common, see *Geothlypis trichas*
- Yolk sac, 718-721
- Yukon-Kuskokwim Delta, 782-790
- Z**
- Zembal, Richard, and Fancher, Jack M., Foraging behavior and foods of the Light-footed Clapper Rail, 959-962
- Zenaida auriculata*, 505-507
galapagoensis, 506
macroura, 292, 363, 480, 504, 512-513, 515, 931, 943
- Zink, Robert M., Evolution of Brown Towhees: Allozymes, morphometrics and species limits, 72-82
- Zink, Robert M., see Johnson, Ned K.
- Zink, Robert M., see McKittrick, Mary C.
- Zonotrichia albicollis*, 48, 267
capensis, 42
leucophrys, 110, 151, 263, 486-489, 558, 637-647, 939
- Zosterops japonicus*, 339-348
- Zuni Mountains, 653-661