

INDEX TO VOLUME 98

A

- Accipiter cooperii*, 123, 165
 gentilis, 123
 striatus, 123
Acorns, 474
Acoustic adaptation hypothesis, 608
Acoustic signal amplitude patterns: a computer simulation investigation of the acoustic adaptation hypothesis, by Timothy J. Brown and Paul Handford, 608
Acremonium coenophialum, 859
Adelie Penguin, 410
Aegolius acadicus, 153
 funereus, 153
Aerial surveys, 189, 837
Afton, A. D., see Cox, R. R., Jr.
Age-specific survival and philopatry in three species of European ducks: a long-term study, by Peter Blums, Aivars Mednis, Ilmars Bauga, James D. Nichols and James E. Hines, 61
Agelaius assimilis, 832
 humeralis, 832
Aggression in White-crowned Sparrows: effects of distance from cover and group size, by Robert Słotow, 245
Agonistic vocalizations, 557
Ainley, David G., Larry B. Spear, Sarah G. Allen and Christine A. Ribic, *Temporal and spatial patterns in the diet of the Common Murre in California waters*, 691
Akiapolaau, 312
Alaska, 48, 54, 162, 189, 337, 350, 433, 653, 820
Aleutian Islands, 653
Allen, S. G., see Ainley, D. G.
Allozymes, 459, 527, 681
Alonso, H. G., see Wallace, G. E.
Alworth, Tom, *An experimental test of the function of sticks in the nests of House Wrens*, 841
Amplitude modulation, 608
Amsterdam Island, 1
Anas acuta, 48, 810, 820
 clypeata, 61
 crecca carolinensis, 27
 marecula, 1
Anatidae, 61
Angon, A. C., see Greenberg, R.
Ankney, C. D., see Paquette, G. A.
Annual and seasonal variation, 691
Anous stolidus, 322
Aphelocoma, 234, 474
 coerulea, 422
 ultramarina, 879
Aquila chrysaetos, 293, 633
Archilochus alexandri, 557
Ardea herodias, 181
Argentina, 866
Arizona, 153
Artemesia, 75
Aspects of the life history and foraging ecology of the

endangered Akiapolaau, by C. John Ralph and Steven G. Fancy, 312

Audouin's Gull, 848

Auriparus flaviceps, 424

Aves, 547

Avian abundance, 483

Aythya americana, 801

ferina, 61

fuligula, 61

valisinera, 512, 801

Azores, 216

B

Bacteria, 167

Badyaev, Alexander V., and John D. Faust, *Nest site fidelity in female Wild Turkey: potential causes and reproductive consequences*, 589

Baker, A. J., see Friesen, V. L.

Baltimore Oriole, 658

Bancroft, G. T., see Frederick, P. C.

Bar-tailed Godwit, 363

Barlow, J. C., see Kozlovic, D. R.

Barnacle Goose, 42

Batista, D. R., see Wallace, G. E.

Bauga, I., see Blums, P.

Behavioral interactions among brood parasites with precocial young: Canvasbacks and Redheads on the Delta marsh, by Rodney D. Sayler, 801

Bell, Douglas A., *Genetic differentiation, geographic variation and hybridization in gulls of the *Larus glaucescens-occidentalis* complex*, 527

Berkelman, James, *Breeding biology of the Madagascar Buzzard in the rain forest of the Masoala Peninsula*, 624

Bielefeldt, J., see Rosenfield, R. N.

Biogeography, 371

Bird communities of northern forests: patterns of diversity and abundance, by Mary F. Willson and Tallchief A. Comet, 337

Bird communities of northern forests: ecological correlates of diversity and abundance in the understory, by Mary F. Willson and Tallchief A. Comet, 350

Bird community, 337, 350

Bird migration: methodologies and major research trajectories (1945–1995), by Sidney A. Gauthreaux, Jr., 442

Bird Song, Biological Themes and Variations, by C. K. Catchpole and P. J. B. Slater, reviewed by R. Haven Wiley, 670

Bird, D. M., see Brodeur, S.

Björklund, Mats, *The effect of male presence on nestling growth and fluctuating asymmetry in the Blue Tit*, 172

Black Brant from Alaska staging and wintering in Japan, by Dirk V. Derksen, Karen S. Bollinger, David H. Ward, James S. Sedinger and Yoshihiko Miyabayashi, 653

Black Kite, 93

- Black-billed Magpie, 272
 Black-capped Chickadee, 885
 Black-chinned Hummingbird, 557
 Black-tailed Gnatcatcher, 424
 Blood serology, 825
 Blue Petrel, 627
 Tit, 172
 Blums, Peter, Aivars Mednis, Ilmars Bauga, James D. Nichols and James E. Hines, Age-specific survival and philopatry in three species of European ducks: a long-term study, 61
 Body composition, 371, 512
 condition, 42, 234
 length, 581
 mass, 363
 size, 123, 581
 Body length and wing length provide univariate estimates of overall body size in the Merlin, by Christer G. Wiklund, 581
 Boersma, P. D., see Yorio, P.
 Bollinger, K. S., see Derksen, D. V.
 Boreal forest, 337
 The Boreal Owl at the southern terminus of the Rocky Mountains: undocumented longtime resident or recent arrival?, by Dale W. Stahlecker and Russell B. Duncan, 153
 Bottomland hardwoods, 483
 Boulinier, Thierry, On breeding performance, colony growth and habitat selection in Buff-necked Ibis, 440
 Bozinovic, F., see Novoa, F. F.
Brachyramphus, 681
brevirostris, 433
Branta bernicla nigricans, 653
canadensis, 859
leucopsis, 42
 Breeding, 189, 216, 832
 Breeding behavior, social organization and morphology of Red-shouldered (*Agelaius assimilis*) and Tawny-shouldered (*A. humeralis*) Blackbirds, by Linda A. Whittingham, Arturo Kirkconnell and Laurene M. Ratcliffe, 832
 Breeding biology, 208, 624
 birds, 706
 date, 42
 dispersal, 82, 165, 589
 philopatry, 61
 range, 153
 systems, 300
 Breeding biology of the Dolphin Gull at Punta Tombo, Argentina, by Pablo Yorio, P. Dee Boersma and Scott Swann, 208
 Breeding biology of the Madagascar Buzzard in the rain forest of the Masoala Peninsula, by James Berkelman, 624
 Bried, J., see Chastel, O.
 Brightness, 780
 Briskie, James V., Lack of sperm storage by female migrants and the significance of copulations en route, 414
 British Columbia, 337, 350
 Brodeur, Serge, Robert Décarie, David M. Bird and Mark Fuller, Complete migration cycle of Golden Eagles breeding in northern Quebec, 293
 Brood parasitism, 253, 630, 645, 801, 866
 reduction, 172
 survival, 48
 Brown Noddy chick predation by Great Frigatebirds in the northwestern Hawaiian Islands, by Jennifer Lynn Megyesi and Curtice R. Griffin, 322
 Brown, Jerram L., and Shou-hsien Li, Delayed effect of monsoon rains influences laying date of a passerine bird living in an arid environment, 879
 Brown, Kevin M., and Peter J. Ewins, Technique-dependent biases in determination of diet composition: an example with Ring-billed Gulls, 34
 Brown, Timothy J., and Paul Handford, Acoustic signal amplitude patterns: a computer simulation investigation of the acoustic adaptation hypothesis, 608
 Brown-and-Yellow Marshbird, 630
 Brown-headed Cowbird, 253, 259, 645
 Brumfield, Robb T., and A. P. Capparella, Genetic differentiation and taxonomy in the House Wren species group, 547
 Buff-necked Ibis, 440
 Build-up of red blood cells in refuelling Bar-tailed Godwits in relation to individual migratory quality, by Theunis Piersma, Jan M. Everaarts and Joop Jukema, 363
 Bullock's Oriole, 658
 Burger, J., see Niles, L. J.
 Bustnes, Jan Ove, Is parental care a constraint on the habitat use of Common Eider females?, 22
Buteo brachypterus, 624
galapagoensis, 300
swainsoni, 876
- C**
- Cade, T. J., see Woods, C. P.
Calidris, 431
 Call analysis, 557
Calonectris diomedea borealis, 216
 Campbell, E. G., see DellaSala, D. A.
 Campbell, R. Wayne, A review of *Shorebirds of the Pacific Northwest*, by Dennis Paulson, 667
 Canada Geese, 859
 Canopy gaps, 706
 Canvasback, 512, 801
 Cape May, 382
 Capparella, A. P., see Brumfield, R. T.
Carpodacus mexicanus, 253
 Causes of hatching failure in the Pied Flycatcher, by Jaime Potti and Santiago Merino, 328
 Cavities, 464, 483
Centrocercus urophasianus, 868
A Century of Avifaunal Change in Western North America, edited by Joseph R. Jehl, Jr. and Ned K. Johnson, reviewed by Dennis R. Paulson, 664
 Charadriiformes, 459
 Chastel, Olivier, and Joel Bried, Diving ability of Blue Petrels and Thin-billed Prions, 627
 Chick provisioning, 34
Chickadees, Tits, Nuthatches & Treecreepers by Simon Harrap and David Quinn, reviewed by Jack P. Hailman, 893
 Chilton, Glen, and M. Ross Lein, Long-term changes

- in songs and song dialect boundaries of Puget Sound White-crowned Sparrows, 567
- Christian, P. D., see Christidis, L.
- Christidis, Les, Kizanne Davies, Michael Westerman, Peter D. Christian, and Richard Schodde, Molecular assessment of the taxonomic status of Cox's Sandpiper, 459
- Cichewicz, R., see Lombardo, M. P.
- Ciconiiformes, 837
- Clamator glandarius*, 272
- Clark, K. E., see Niles, L. J.
- Cleaning station, 422
- Climate, 879
- Cloacal bacteria, 167
- Clutch initiation, 234
size, 42, 54, 181, 328, 820, 858
- Coal Tit, 863
- Coffee, 640
- Colinus virginianus*, 854
- Colonial breeding, 440
- Colonial seabird nesting in dense and small sub-colonies: an advantage against aerial predation, by Daniel Oro, 848
- Colony size, 848
- Color preference, 780
- Colorado, 153
- Columba livia*, 437
- Columbidae, 100
- Colwell, M. A., see Dodd, S. L.
- Comet, T. A., see Willson, M. F.
- Common Eider, 22
Murre, 691
- Yellowthroat, 491
- Communities of cloacal bacteria in Tree Swallow families, by Michael P. Lombardo, Patrick A. Thorpe, R. Cichewicz, M. Henshaw, C. Millard, C. Steen and T. K. Zeller, 167
- Comparative analysis, 279
- Comparison of aerial and ground techniques for discovery and census of wading bird (Ciconiiformes) nesting colonies, by Peter C. Frederick, Tim Towles, Richard J. Sawicki and G. Thomas Bancroft, 837
- Competition, 640
- Complete migration cycle of Golden Eagles breeding in northern Quebec, by Serge Brodeur, Robert Décarie, David M. Bird and Mark Fuller, 293
- The composition and foraging ecology of mixed-species flocks in pine forests of Hispaniola, by Steven C. Latta and Joseph M. Wunderle, Jr., 595
- Computer simulations, 608
- Conant, B., see Groves, D. J.
- Congeners, 165
- Connelly, J. W., see Fischer, R. A.
- Conner, Richard N., A review of *Woodpeckers: A Guide to Woodpeckers of the World*, by H. Winkler, D. A. Christie and D. Nurney, 667
- Conover, Michael R., and Terry A. Messmer, Feeding preferences and changes in mass of Canada Geese grazing endophyte-infected tall fescue, 859
- Conspecific attraction, 440
- Constraints on double brooding in a Neotropical migrant, the Hooded Warbler, by Lesley J. Evans Ogden and Bridget J. M. Stutchbury, 736
- Cooper's Hawk, 165
- Cooperative polyandry, 300
- Copulation behavior, 414
frequency, 410
- The corticosterone stress response in Gentoo and King Penguins during the non-fasting period, by Rebecca L. Holberton, Brian Helmuth and John C. Wingfield, 850
- Cory's Shearwater, 216
- Courtship, 722
- Cover, safe, 245
- Cowbird reproductive success, 259
survivorship, 253
host laying synchrony, 259
- Cox, Robert R., Jr. and Alan D. Afton, Evening flights of female Northern Pintails from a major roost site, 810
- Cox's Sandpiper, 459
- Crows and Jays: A Guide to the Crows, Jays and Magpies of the World*, by S. Madge and H. Burn, reviewed by Stephen B. Vander Wall, 895
- Cuba, 745
- Cultural transmission, 567
- Custer, C. M., see Custer, T. W.
- Custer, Thomas W., Randy K. Hines and Christine M. Custer, Nest initiation and clutch size of Great Blue Herons on the Mississippi River in relation to the 1993 flood, 181
- Cytochrome b, 459, 681
- D**
- Dalhaug, Laila, Ingunn M. Tombre and Kjell Einar Erikstad, Seasonal decline in clutch size of the Barnacle Goose in Svalbard, 42
- Dark-eyed Junco, 636
- Davies, K., see Christidis, L.
- Davis, L. S., see Hunter, F. M.
- Day, Robert H., Nesting phenology of Kittlitz's Murrelet, 433
- Dearborn, Donald C., Video documentation of a Brown-headed Cowbird nestling ejecting an Indigo Bunting nestling from the nest, 645
- Décarie, R., see Brodeur, S.
- Delahay, R. J., and R. Moss, Food intake, weight changes and egg production in captive Red Grouse before and during laying: effects of the parasitic nematode *Trichostrongylus tenuis*, 501
- DeLay, Linda S., John Faaborg, Jenny Naranjo, Sara M. Paz, Tjiti de Vries and Patricia G. Parker, Paternal care in the cooperatively polyandrous Galapagos Hawk, 300
- Delayed effect of monsoon rains influences laying date of a passerine bird living in an arid environment, by Jerram L. Brown and Shou-hsien Li, 879
- DellaSala, Dominick A., Joan C. Hagar, Kathleen A. Engel, William C. McComb, Randal L. Fairbanks and Ellen G. Campbell, Effects of silvicultural modifications of temperate rainforest on breeding and wintering bird communities, Prince of Wales Island, southeast Alaska, 706
- Demography, 312
- Dendroica petechia*, 640
- Density, 272
- Derksen, Dirk V., Karen S. Bollinger, David H. Ward, James S. Sedinger and Yoshihiko Miyabayashi,

- Black Brant from Alaska staging and wintering in Japan, 653
- Determinate laying, 858
- Dialect boundaries, 567
- Diet, 34, 279, 691, 873
- Dietary interactions, 474
- Differential migration, 633
- Differential reproductive success of Brown-headed Cowbirds with Northern Cardinals and three other hosts, by David M. Scott and Robert E. Lemon, 259
- Digestive efficiency, 873
- tract, 279, 873
- Diomedea bulleri bulleri*, 649
- Disease, 167
- Dispersion, 633
- Display behavior and natural history of the Yellow-crowned Manakin (*Heterocercus flavivertex*: Pipridae), by Richard O. Prum, Joseph D. Kaplan and Jan E. Pierson, 722
- Distribution, 189
- Disturbance, 483
- Diurnal microsite selection, 424
- variation in foraging, 491
- Diurnal, intraseasonal, and intersexual variation in foraging behavior of the Common Yellowthroat, by John P. Kelly and Chris Wood, 491
- Diving ability of Blue Petrels and Thin-billed Prions, by Olivier Chastel and Joel Bried, 627
- Diving pattern and stomach temperatures of foraging King Cormorants at subantarctic Macquarie Island, by Akiko Kato, Yasuhiko Naito, Yutaka Watanuki and Peter D. Shaughnessy, 844
- Divorce, 82
- Dodd, Sarah L., and Mark A. Colwell, Seasonal variation in diurnal and nocturnal distributions of nonbreeding shorebirds at Humboldt Bay, California, 196
- Dolphin Gulls, 208
- Dominance, 636
- Donázar, J. A., see Tella, J. L.
- Double brooding, 736
- Drobney, R. D., see Thompson, J. E.
- Duckling survival, 48
- Duncan, R. B., see Stahlecker, D. W.
- Dusky Flycatcher, 428
- E**
- Ebro Delta, 848
- Ecological relationships of two todies in Hispaniola: effects of habitat and flocking, by Steven C. Latta and Joseph M. Wunderle, Jr., 769
- Ectoparasites, 142, 791
- The effect of magpie breeding density and synchrony on brood parasitism by Great Spotted Cuckoos, by J. G. Martinez, M. Soler and J. J. Soler, 272
- The effect of male presence on nestling growth and fluctuating asymmetry in the Blue Tit, by Mats Björklund, 172
- The effect of supplemental food on body condition and the timing of reproduction in a cooperative breeder, the Florida Scrub-Jay, by Stephan J. Schoech, 234
- The effect of thermal microclimate on foraging site selection by wintering Mountain Chickadees, by Douglas G. Wachob, 114
- Effects of silvicultural modifications of temperate rainforest on breeding and wintering bird communities, Prince of Wales Island, southeast Alaska, by Dominick A. DellaSala, Joan C. Hagar, Kathleen A. Engel, William C. McComb, Randolph L. Fairbanks and Ellen G. Campbell, 706
- Egg infertility, 328
- capping, 431
- laying, 428, 863
- mass, 93
- production, 501
- shell removal, 431
- size, 162, 181, 328
- Egg-capping and eggshell removal by Western and Semipalmented Sandpipers, by Brett K. Sandercock, 431
- Egg-laying behavior in tits, by Svein Haftorn, 863
- Egg-laying in Dusky Flycatchers and White-crowned Sparrows, by Suzanne D. Oppenheimer, Maria E. Pereyra and Martin L. Morton, 428
- Emigration, 61
- Emlen, Stephen T., Historical perspectives on orientation: an addendum, 176
- Empidonax oberholseri*, 428
- Emslie, Steven D., A fossil scrub-jay supports a recent systematic decision, 675
- Enclosed nests, 464
- Endophytic fungus, 859
- Engel, K. A., see DellaSala, D. A.
- Erickson, R. A., see Patten, M. A.
- Erikstad, K. E., see Dalhaug, L.
- Establishment of mass hierarchies in broods of the Black Kite, by Javier Viñuela, 93
- Eurasia, 437
- Evans Ogden, Lesley J., and Bridget J. M. Stutchbury, Constraints on double brooding in a Neotropical migrant, the Hooded Warbler, 736
- Evaporative water loss, 424
- Evening flights of female Northern Pintails from a major roost site, by Robert R. Cox, Jr. and Alan D. Afton, 810
- Everaarts, J. M., see Piersma, T.
- Everglades, 837
- Evidence from cytochrome *b* sequences and allozymes for a 'new' species of Alcid: the Long-billed Murrelet (*Brachyramphus perdix*), by V. L. Friesen, J. F. Piatt and A. J. Baker, 681
- Ewins, P. J., see Brown, K. M.
- An experimental test of the function of sticks in the nests of House Wrens, by Tom Alworth, 841
- External characters, 437
- Extinction, 1
- F**
- Faaborg, J., see DeLay, L. S.
- Fairbanks, R. L., see DellaSala, D. A.
- Falco mexicanus*, 791
- naumannii*, 643
- peregrinus*, 848
- Fancy, S. G., see Ralph, C. J.
- Fat catabolism, 371
- deposition, 395
- stores, 825

- Faust, J. D., see Badyaev, A. V.
- Feeding preferences and changes in mass of Canada Geese grazing endophyte-infected tall fescue, by Michael R. Conover and Terry A. Messmer, 859
- Fertility, 27, 410
- Fescue, 859
- Festuca arundinacea*, 859
- Ficedula hypoleuca*, 328
- Ficken, M. S., see Rusch, K. M.
- Fischer, Richard A., Kerry P. Reese and John W. Connelly, Influence of vegetal moisture content and nest fate on timing of female Sage Grouse migration, 868
- Fitzpatrick, John W., and Glen E. Woolfenden, Florida Scrub-Jay forages on back of white-tailed deer, 422
- Fleck, David C., and Diana F. Tomback, Tannin and protein in the diet of a food-hoarding granivore, the Western Scrub-Jay, 474
- Flight energetics, 810
- Flightlessness, 1
- Flint, Paul L., and J. Barry Grand, Nesting success of Northern Pintails on the coastal Yukon-Kuskokwim Delta, Alaska, 54
- Flint, Paul L., and J. Barry Grand, Variation in egg size of the Northern Pintail, 162
- Flint, P. L., see also Grand, J. B.
- Flooding, 181
- Florida, 675
- Florida Scrub-Jay, 234, 422
- Florida Scrub-Jay forages on back of white-tailed deer, by John W. Fitzpatrick and Glen E. Woolfenden, 422
- Fluctuating asymmetry, 172
- Food ingestion, 844
- Food intake, weight changes and egg production in captive Red Grouse before and during laying: effects of the parasitic nematode *Trichostrongylus tenuis*, by R. J. Delahay and R. Moss, 501
- Food supplementation, 234
- Foraging, 422, 491
- area, 691
 - behavior, 595, 627, 769, 854
 - ecology, 312
 - habitat, 691
 - site selection, 114
 - trips, 649
- Forest structural characteristics of accipiter nesting habitat: is there an allometric relationship?, by Melissa S. Siders and Patricia L. Kennedy, 123
- A fossil scrub-jay supports a recent systematic decision, by Steven D. Emslie, 675
- Fraga, Rosendo M., Further evidence of parasitism of Chopi Blackbirds (*Gnorimopsar chopi*) by the specialized Screaming Cowbird (*Molothrus rufoaxillaris*), 866
- Frederick, Peter C., Tim Towles, Richard J. Sawicki and G. Thomas Bancroft, Comparison of aerial and ground techniques for discovery and census of wading bird (Ciconiiformes) nesting colonies, 837
- Friesen, V. L., J. F. Piatt and A. J. Baker, Evidence from cytochrome b sequences and allozymes for a 'new' species of alcid: the Long-billed Murrelet (*Brachyramphus perdix*), 681
- Frigata minor*, 322
- Frugivory, 780
- Fruit, 780
- abundance, 100
- Fruit color choices of captive Silvereys (*Zosterops lateralis*), by Helen L. Puckey, Alan Lill and Dennis J. O'Dowd, 780
- Fruit-color polymorphism, 780
- Fuller, M., see Brodeur, S.
- Furness, R. W., see Monteiro, L. R.
- Further evidence of parasitism of Chopi Blackbirds (*Gnorimopsar chopi*) by the specialized Screaming Cowbird (*Molothrus rufoaxillaris*), by Rosendo M. Fraga, 866
- G**
- Galapagos Hawk, 300
- Gauthreaux, Sidney A., Jr., Bird migration: methodologies and major research trajectories (1945–1995), 442
- Gavia, 189
- Gene flow, 527
- Genetic differentiation and taxonomy in the House Wren species group, by Robb T. Brumfield and A. P. Capparella, 547
- Genetic differentiation, geographic variation and hybridization in gulls of the *Larus glaucescens-occidentalis* complex, by Douglas A. Bell, 527
- Genetic variation, 547
- Gentoo Penguin, 850
- Geographic size variation of female wild Rock Doves, by Richard F. Johnston, 437
- Geographic variation, 371, 437, 527
- Geographic variation in metabolic seasonal acclimation in House Finches, by Timothy P. O'Connor, 371
- Geothlypis trichas*, 491
- Giving-up density, 854
- Glucocorticoids, 850
- Gnorimopsar chopi*, 866
- Golden Eagle, 293, 633
- Gotelli, Nicholas J., A review of *Macroecology*, by James H. Brown, 669
- Grand, J. Barry, and Paul L. Flint, Survival of Northern Pintail ducklings on the Yukon-Kuskokwim Delta, Alaska, 48
- Grand, James B., and Paul L. Flint, Renesting ecology of Northern Pintails on the Yukon-Kuskokwim Delta, Alaska, 820
- Grand, J. B., see also Flint, P. L.
- Grasso, Michael J., Udo M. Savalli and Ronald L. Mumme, Status signaling in Dark-eyed Juncos: perceived status of other birds affects dominance interactions, 636
- Great Blue Herons, 181
- Spotted Cuckoo, 272
 - Tit, 863
- Green-winged Teal, 27
- Greenberg, Russell, Robert Reitsma and Andrea Cruz Angon, Interspecific aggression in Yellow Warblers in a sun coffee plantation, 640
- Griffin, C. R., see Megyesi, J. L.
- Group size, 245
- Groves, Deborah J., Bruce Conant, Rodney J. King, John I. Hodges and James G. King, Status and

- trends of loon populations summering in Alaska, 1971–1993, 189
- Growth, 93, 172
- Gulls, 527
- Gut morphology, 279, 512
- H**
- Habitat, 382
- breadth, 337
 - selection, 440, 491
 - shifts, 337
 - use, 22, 745, 769
- Haftorn, Svein, Egg-laying behavior in tits, 863
- Hagar, J. C., see DellaSala, D. A.
- Hailman, Jack P., A review of *Chickadees, Tits, Nuthatches & Treecreepers*, by Simon Harrap and David Quinn, 893
- Halobaena caerulea*, 627
- Handford, P., see Brown, T. J.
- Hatching asynchrony, 93
- date, 48
 - failure, 328
- Hawaii, 312
- Heart, 363
- Helmut, B., see Holberton, R. L.
- Hematocrit, 363, 825
- Hemignathus munroi*, 312
- Hemoglobin, 363
- Henshaw, M., see Lombardo, M. P.
- Herbivory, 859
- Herzog, Sebastian K., Wintering Swainson's Hawks in California's Sacramento-San Joaquin River Delta, 876
- Heteroduplex, 681
- Hilty, Steven L., A review of *Sparrows and Buntings. A Guide to the Sparrows and Buntings of North America and the World*, by Clive Byers, Jon Curson and Urban Olsson, 894
- Hines, J. E., see Blums, P.
- Hines, R. K., see Custer, T. W.
- Hiraldo, F., see Tellà, J. L.
- Hispaniola, 595, 769
- Historical biogeography, 547
- Historical perspectives on migration, 442
- Historical perspectives on orientation: an addendum, by S. T. Emlen, 176
- Hodges, J. I., see Groves, D. J.
- Hoffman, S. W., see Omland, K. S.
- Holberton, Rebecca L., Brian Helmuth and John C. Wingfield, The corticosterone stress response in Gentoo and King Penguins during the non-fasting period, 850
- Holmes, D. W., see Morris, S. R.
- Home range, 312
- Hooded Warbler, 736
- Host-parasite behavior, 801
- interaction, 645
- House Finch, 253, 371
- Wren, 547, 841
- Hue, 780
- Humboldt Bay, 196
- Hunter, F. M., L. S. Davis and G. D. Miller, Sperm transfer in the Adelie Penguin, 410
- Hybrid zone, 658
- Hybridization, 527, 658
- I**
- Icterus bullockii*, 658
- galbula*, 658
- Incubation period, 42, 649
- Indeterminacy in a determinate layer: the Spur-winged Plover, by Akiva Yoge and Yoram Yom-Tov, 858
- Individual quality, 363
- recognition, 636
- Influence of vegetal moisture content and nest fate on timing of female Sage Grouse migration, by Richard A. Fischer, Kerry P. Reese and John W. Connally, 868
- The influence of weather, geography, and habitat on migrating raptors on Cape May Peninsula, by Lawrence J. Niles, Joanna Burger and Kathleen E. Clark, 382
- Information for contributors, 177
- Initial changes in habitat and abundance of cavity-nesting birds and the Northern Parula following Hurricane Andrew, by A. Robin Torres and Paul L. Leberg, 483
- Initiation date, 54, 820
- Insectivores, 769
- Interspecific aggression in Yellow Warblers in a sun coffee plantation, by Russell Greenberg, Robert Reitsma and Andrea Cruz Angon, 640
- Intestine, 279
- Intra-brood size hierarchy, 93
- Intraseasonal, 491
- Irregular amplitude fluctuations, 608
- Isozymes, 547
- Israel, 858
- Izembek Lagoon, 653
- J**
- Japan, 653
- Johnston, Richard F., Geographic size variation of female wild Rock Doves, 437
- Jouventin, P., see Olson, S. L.
- Jukema, J., see Piersma, T.
- Junco hyemalis*, 636
- K**
- Kaplan, J. D., see Prum, R. O.
- Kato, Akiko, Yasuhiko Naito, Yutaka Watanuki and Peter D. Shaughnessy, Diving pattern and stomach temperatures of foraging King Cormorants at subantarctic Macquarie Island, 844
- Kellner, Chris, A review of *Shrikes (Laniidae) of the World: Biology and Conservation*, edited by Reuven Yosef and Fred E. Lohrer, 891
- Kelly, John P., and Chris Wood, Diurnal, intraseasonal, and intersexual variation in foraging behavior of the Common Yellowthroat, 491
- Kennedy, P. L., see Siders, M. S.
- King Cormorant, 844
- Penguin, 850
- King, J. G., see Groves, D. J.
- King, R. J., see Groves, D. J.
- Kirkconnell, A., see Whittingham, L. A.
- Kittlitz's Murrelet, 433
- Kleptoparasitism, 322
- Knapton, R. W., see Kozlovic, D. R.

Kohlmann, Stephan G., and Kenneth L. Risenhoover, Using artificial food patches to evaluate habitat quality for granivorous birds: an application of foraging theory, 854

Kozlovic, Daniel R., Richard W. Knapton and Jon C. Barlow, Unsuitability of the House Finch as a host of the Brown-headed Cowbird, 253

Kratter, Andrew W., A review of *Nearctic Passerine Migrants in South America*, by R. A. Paynter, Jr., 664

L

Lacassine National Wildlife Refuge, 810

Lack of sperm storage by female migrants and the significance of copulations en route, by James V. Briskie, 414

Lagopus lagopus scoticus, 501

Lake Erie, 34

Lanius, 75

Larus, 527

audouinii, 848

delawarensis, 34

[*Leucophaea*] *scoresbii*, 208

Latta, Steven C., and Joseph M. Wunderle, Jr., The composition and foraging ecology of mixed-species flocks in pine forests of Hispaniola, 595

Latta, Steven C., and Joseph M. Wunderle, Jr., Ecological relationships of two toadies in Hispaniola: effects of habitat and flocking, 769

Latvia, 61

Laying date, 879

 intervals, 428

 order, 328

 time of day, 428

Least Seedsnipe, 418

 Tern, 888

Leberg, P. L., see Torres, A. R.

Lein, M. R., see Chilton, G.

Lek, 722

Lemon, R. E., see Scott, D. M.

Lesser Kestrel, 643

Li, S-H., see Brown, J. L.

Life zones, 100

Lifetime nesting area fidelity in male Cooper's Hawks in Wisconsin, by Robert N. Rosenfield and John Bielefeldt, 165

Lill, A., see Puckey, H. L.

Limosa lapponica, 363

Lindell, Catherine, Patterns of nest usurpation: when should species converge on nest niches?, 464

Lipid mobilization, 371

Lombardo, Michael P., Patrick A. Thorpe, R. Cichewicz, M. Henshaw, C. Millard, C. Steen and T. K. Zeller, Communities of cloacal bacteria in Tree Swallow families, 167

Long-term changes in songs and song dialect boundaries of Puget Sound White-Crowned Sparrows, by Glen Chilton and M. Ross Lein, 567

Loons, 189

López-Calleja, M. V., see Novoa, F. F.

Louisiana, 810

M

Macroecology, by James H. Brown, reviewed by Nicholas J. Gotelli, 669

Madagascar, 624

Madagascar Buzzard, 624

Manakins, 722

Manitoba, 414

Mark-recapture, 165

Marsh Tit, 863

Martinez, J. G., M. Soler and J. J. Soler, The effect of magpie breeding density and synchrony on brood parasitism by Great Spotted Cuckoos, 272

Marzluff, J. M., see McFadzen, M. E.

Mate and site fidelity, 82

Mate choice, 82

Maximum diving depths, 627

McComb, W. C., see DellaSala, D. A.

McFadzen, Mary E., and John M. Marzluff, Mortality of Prairie Falcons during the fledging-dependence period, 791

McNicholl, M. K., see Wallace, G. E.

Mednis, A., see Blums, P.

Megyesi, Jennifer L., and Curtice R. Griffin, Brown Noddy chick predation by Great Frigatebirds in the northwestern Hawaiian Islands, 322

Meleagris gallopavo, 589

Merilä, J., see Svensson, E.

Merino, S., see Potti, J.

Merlin, 581

Mermoz, Myriam E., and Juan C. Reboreda, New host for a specialized brood parasite, the Screaming Cowbird, 630

Messmer, T. A., see Conover, M. R.

Methodologies, 442

Mexican Jay, 879

Mexico, 888

Microhabitat, 100

Migrant warblers, 414

Migration, 293, 363, 382, 395, 825

 timing, 868

Millard, C., see Lombardo, M. P.

Miller Award, 900

Miller, Edward H., Nuptial vocalizations of male Least Seedsnipe: structure and evolutionary significance, 418

Miller, G. D., see Hunter, F. M.

Milvus migrans, 93

Mississippi River, 181

Mist nets, 745

Mixed-species flocks, 595, 769

Miyabayashi, Y., see Derksen, D. V.

Molecular assessment of the taxonomic status of Cox's Sandpiper, by Les Christidis, Kizanne Davies, Michael Westerman, Peter D. Christian and Richard Schodde, 459

Molothrus ater, 253, 259, 645

bonariensis, 630

rufoaxillaris, 630, 866

Molt, 216, 512, 736, 825

Molt and migratory condition in Blue Tits: a serological study, by Erik Svensson and Juha Merilä, 825

Molt of Cory's Shearwater during the breeding season, by L. R. Monteiro and R. W. Furness, 216

Monsoon, 879

Monteiro, L. R., and R. W. Furness, Molt of Cory's Shearwater during the breeding season, 216

Morphometrics, 279, 527

- Morphometry of the digestive tracts of some passerine birds, by R. E. Ricklefs, 279
- Morris, Sara R., David W. Holmes and Milo E. Richmond, A ten-year study of the stopover patterns of migratory passersines during fall migration on Appledore Island, Maine, 395
- Mortality of Prairie Falcons during the fledging-dependence period, by Mary E. McFadzen and John M. Marzluff, 791
- Morton, M. L., see Oppenheimer, S. D.
- Moss, R., see Delahay, R. J.
- Mountain Chickadee, 114
- Mumme, R. L., see Grasso, M. J.
- Murphy, Michael T., Survivorship, breeding dispersal and mate fidelity in Eastern Kingbirds, 82
- Murrelet, 681
- N**
- Naito, Y., see Kato, A.
- Naranjo, J., see DeLay, L. S.
- Natural history, 876
- Nearctic Passerine Migrants in South America* by R. A. Paynter, Jr., reviewed by Andrew W. Kratter, 664
- Neartic migratory birds, 595
- Nematode, 501
- Neotropical landbird migrants, 395
- Neotropical migrant, 736, 745
- Nest boxes, 142
building, 841
height, 75
niche convergence, 464
parasitism, 259
predation, 54
site, 350, 464
success, 75
usurpation, 464
- Nest density and success of Columbids in Puerto Rico, by Frank F. Rivera-Milán, 100
- Nest initiation and clutch size of Great Blue Herons on the Mississippi River in relation to the 1993 flood, by Thomas W. Custer, Randy K. Hines and Christine M. Custer, 181
- Nest site fidelity in female Wild Turkey: potential causes and reproductive consequences, by Alexander V. Badyaev and John D. Faust, 589
- Nesting, 433
association, 464
chronology, 181
habitat, 123
mortality, 259
success, 54, 100, 841
- Nesting habits of the Loggerhead Shrike in sagebrush, by Christopher P. Woods and Tom J. Cade, 75
- Nesting phenology of Kittlitz's Murrelet, by Robert H. Day, 433
- Nesting success of Northern Pintails on the coastal Yukon-Kuskokwim Delta, Alaska, by Paul L. Flint and J. Barry Grand, 54
- Nestling behavior, 645
diet, 253
- New host for a specialized brood parasite, the Screaming Cowbird, by Myriam E. Mermoz and Juan C. Reboreda, 630
- New Mexico, 123, 153
- A new species of small flightless duck from Amsterdam Island, southern Indian Ocean (Anatidae: Anas), by Storrs L. Olson and Pierre Jouventin, 1
- Niche, 491
partitioning, 123
- Nichols, J. D., see Blums, P.
- Niles, Lawrence J., Joanna Burger and Kathleen E. Clark, The influence of weather, geography, and habitat on migrating raptors on Cape May Peninsula, 382
- Nocturnal foraging, 196
- Nonbreeding distributions, 196
- North Atlantic, 395
- Northern Bobwhite, 854
Cardinal, 259
Pintail, 48, 54, 162, 810, 820
- Norway, 22
- Nova, F. Fernando, Claudio Veloso, M. Victoria López-Calleja and Francisco Bozinovic, Seasonal changes in diet, digestive morphology and digestive efficiency in the Rufous-collared Sparrow (*Zonotrichia capensis*) in Central Chile, 873
- Nuclear species, 595
- Nuptial vocalizations of male Least Seedsnipe: structure and evolutionary significance, by Edward H. Miller, 418
- Nutrient reserves, 820
- Nutritional ecology, 512
- Nutritional implications of molt in Male Canvasbacks: variation in nutrient reserves and digestive tract morphology, by Jonathan E. Thompson and Ronald D. Drobney, 512
- Nycticorax*, 222
- O**
- O'Connor, Timothy P., Geographic variation in metabolic seasonal acclimatization in House Finches, 371
- O'Dowd, D. J., see Puckey, H. L.
- Oaks, 474
- Old growth, 706
- Old nest material in nestboxes of Tree Swallows: effects on reproductive success, by Wallace B. Rendell and Nicolaas A. M. Verbeek, 142
- Olson, Storrs L., and Pierre Jouventin, A new species of small flightless duck from Amsterdam Island, southern Indian Ocean (Anatidae: Anas), 1
- Omland, Kristian S., and Stephen W. Hoffman, Seasonal, diel, and spatial dispersion patterns of Golden Eagle autumn migration in southwestern Montana, 633
- On breeding performance, colony growth and habitat selection in Buff-necked Ibis, by Thierry Boulinier, 440
- Open and closed habitats, 608
- Oppenheimer, Suzanne D., Maria E. Pereyra and Martin L. Morton, Egg-laying in Dusky Flycatchers and White-crowned Sparrows, 428
- Organization of agonistic vocalizations in Black-chinned Hummingbirds, by Kathryn M. Rusch, Carolyn L. Pytte and Millicent S. Ficken, 557
- Oria, B. S., see Wallace, G. E.
- Oro, Daniel, Colonial seabird nesting in dense and small sub-colonies: an advantage against aerial predation, 848

P

- Pachyptila belcheri*, 627
 Paleontology, 1
 Paquette, Gil A., and C. Davison Ankney, Wetland selection by American Green-winged Teal breeding in British Columbia, 27
 Parasitism, 501
 rate, 272
 Is parental care a constraint on the habitat use of Common Eider females?, by Jan Ove Bustnes, 22
 Parker, P. G., see DeLay, L. S.
Parus, 114
ater, 863
atricapillus, 885
caeruleus, 825
gambeli, 114
major, 863
montanus, 863
palustris, 863
 Paternal care, 172, 300
 Paternal care in the cooperatively polyandrous Galapagos Hawk, by Linda S. DeLay, John Faaborg, Jenny Naranjo, Sara M. Paz, Tjritte de Vries and Patricia G. Parker, 300
 Patten, Michael A., and Richard A. Erickson, Subspecies of the Least Tern in Mexico, 888
 Patterns of nest usurpation: when should species converge on nest niches?, by Catherine Lindell, 464
 Paulson, Dennis R., A review of *A Century of Avifaunal Change in Western North America*, edited by Joseph R. Jehl, Jr. and Ned K. Johnson, 664
 Paz, S. M., see DeLay, L. S.
 Pellets, 34
 Penguin, 850
 Peregrine Falcon, 848
 Pereyra, M. E., see Oppenheimer, S. D.
 Phenology, 433
 Phylogenetics, 681
 Piatt, J. F., see Friesen, V. L.
Pica pica, 272
 Pied Flycatchers, 328
 Piersma, Theunis, Jan M. Everaarts and Joop Jukema, Build-up of red blood cells in refuelling Bar-tailed Godwits in relation to individual migratory quality, 363
 Pierson, J. E., see Prum, R. O.
 Pine forest, 595
 Pitelkafest, 671
 Plant phenology, 868
 Plant-herbivore relationships, 859
 Pliocene, 675
 Plumage coloration, 643
 variation, 636
 Point counts, 745
Polioptila melanura, 424
 Population estimation, 837
 genetics, 681
 trends, 189
 Postfledging, 791
 Potti, Jaime, and Santiago Merino, Causes of hatching failure in the Pied Flycatcher, 328
 Prairie Falcon, 791
 Precommercial thinning, 706
 Predation, 322, 854, 791
 risk, 245

Prey

- selection, 691
 Prieto, R. O., see Wallace, G. E.
 Principal components analysis, 581
 Productivity, 48, 54
 Protein, 474
 Prum, Richard O., Joseph D. Kaplan and Jan E. Peterson, Display behavior and natural history of the Yellow-crowned Manakin (*Heterocercus flavivertex*: Pipridae), 722
Pseudoleistes virescens, 630
 Puckey, Helen L., Alan Lill and Dennis J. O'Dowd, Fruit color choices of captive Silveryeyes (*Zosterops lateralis*), 780
 Puerto Rico, 100
 Pytte, C. L., see Rusch, K. M.

Q

- Quercus*, 474

R

- Rainfall, 100
 Rainforest, 350, 624
 Ralph, C. John, and Steven G. Fancy, Aspects of the life history and foraging ecology of the endangered Akiapolaau, 312
 Raptor, 293, 382, 581
 Ratcliffe, L. M., see Whittingham, L. A.
 Reboreda, J. C., see Mermoz, M. E.
 Recruitment, 48
 Red blood cell sedimentation rate, 825
 Red Grouse, 501
 Red-shouldered Blackbird, 832
 Redhead, 801
 Reese, K. P., see Fischer, R. A.
 Refuging theory, 810
 Reitsma, R., see Greenberg, R.
 Relative abundance, 337
 Rendell, Wallace B., and Nicolaas A. M. Verbeek, Old nest material in nestboxes of Tree Swallows: effects on reproductive success, 142
 Renesting ecology of Northern Pintails on the Yukon-Kuskokwim Delta, Alaska, by James B. Grand and Paul L. Flint, 820
 Repeatability, 162
 Reproductive performance, 589
 success, 142, 208
 Research directions, 442
 Resident birds, 745
 Resources for laying, 501
 Reverberation, 608
 Reversed sexual size dimorphism, 581
 Ribic, C. A., see Ainley, D. G.
 Richmond, M. E., see Morris, S. R.
 Ricklefs, R. E., Morphometry of the digestive tracts of some passerine birds, 279
 Ring-billed Gulls, 34
 Risenhoover, K. L., see Kohlmann, S. G.
 Rising, James D., The stability of the oriole hybrid zone in western Kansas, 658
 Rivera-Milán, Frank F., Nest density and success of Columbids in Puerto Rico, 100
 Rocky Mountains, 153
 Rohwer, S., see Shugart, G. W.

- Rosenfield, Robert N., and John Bielefeldt, Lifetime nesting area fidelity in male Cooper's Hawks in Wisconsin, 165
- Rusch, Kathryn M., Carolyn L. Pytte and Millicent S. Ficken, Organization of agonistic vocalizations in Black-chinned Hummingbirds, 557
- Russia, 433
- S**
- Sacramento-San Joaquin River Delta, 876
- Sagar, P. M., and H. Weimerskirch, Satellite tracking of southern Buller's Albatrosses from the Snares, New Zealand, 649
- Sage Grouse, 868
- St. Paul Island, 1
- Sandercock, Brett K., Egg-capping and eggshell removal by Western and Semipalmated Sandpipers, 431
- Satellite tracking, 293, 649
- Satellite tracking of southern Buller's Albatrosses from the Snares, New Zealand, by P. M. Sagar and H. Weimerskirch, 649
- Saturation, 350
- Savalli, U. M., see Grasso, M. J.
- Sawicki, R. J., see Frederick, P. C.
- Sayler, Rodney D., Behavioral interactions among brood parasites with precocial young: Canvasbacks and Redheads on the Delta Marsh, 801
- Schodde, R., see Christidis, L.
- Schoech, Stephan J., The effect of supplemental food on body condition and the timing of reproduction in a cooperative breeder, the Florida Scrub-Jay, 234
- Scott, David M., and Robert E. Lemon, Differential reproductive success of Brown-headed Cowbirds with Northern Cardinals and three other hosts, 259
- Screaming Cowbird, 630
- Scrub-Jay, 474, 675
- Seabirds, 322
- Seasonal changes in diet, digestive morphology and digestive efficiency in the Rufous-collared Sparrow (*Zonotrichia capensis*) in Central Chile, by F. Fernando Novoa, Claudio Veloso, M. Victoria López-Calleja and Francisco Bozinovic, 873
- Seasonal decline in clutch size of the Barnacle Goose in Svalbard, by Laila Dalhaug, Ingunn M. Tombre and Kjell Einar Erikstad, 42
- Seasonal movements, 868
- Seasonal variation in diurnal and nocturnal distributions of nonbreeding shorebirds at North Humboldt Bay, California, by Sarah L. Dodd and Mark A. Colwell, 196
- Seasonal, diel, and spatial dispersion patterns of Golden Eagle autumn migration in southwestern Montana, by Kristian Shawn Omland and Stephen W. Hoffman, 633
- Sedinger, J. S., see Derksen, D. V.
- Semipalmated Sandpiper, 431
- Serial descendant primary molt or *staffelmauser* in Black-crowned Night-Herons, by Gary W. Shugart and Sievert Rohwer, 222
- Sex roles in nest building, 841
- Sex-specific behavior, 322
- Sexual dichromatism, 832
- Shaughnessy, P. D., see Kato, A.
- Shiny Cowbird, 630
- Shorebirds, 196, 363
- Shorebirds of the Pacific Northwest*, by Dennis Paulson, reviewed by R. Wayne Campbell, 667
- Shrikes (Laniidae) of the World: Biology and Conservation* by Reuven Yosef and Fred E. Lohrer (eds.), reviewed by Chris Kellner, 891
- Shrub-steppe, 75
- Shugart, Gary W., and Sievert Rohwer, Serial descendant primary molt or *staffelmauser* in Black-crowned Night-Herons, 222
- Siders, Melissa S., and Patricia L. Kennedy, Forest structural characteristics of accipiter nesting habitat: is there an allometric relationship?, 123
- Silvereye, 780
- Single stranded conformation polymorphisms, 681
- The single wing-flick display of the Black-Capped Chickadee, by Susan M. Smith, 885
- Size variation, 437
- Slotow, Robert, Aggression in White-crowned Sparrows: effects of distance from cover and group size, 245
- Smith, Susan M., The single wing-flick display of the Black-Capped Chickadee, 885
- Snag, 483
- Soler, J. J., see Martinez, J. G.
- Soler, M., see Martinez, J. G.
- Somateria mollissima*, 22
- Song, 722
dialects, 567
- Sosa, A. L., see Wallace, G. E.
- Southeast Alaska, 706
- Southern Pacific Ocean, 649
- Spain, 848
- Spanish moss, 483
- Sparrows and Buntings. A Guide to the Sparrows and Buntings of North America and the World* by Clive Byers, Jon Curson and Urban Olsson, reviewed by Steven L. Hiltz, 894
- Spear, L. B., see Ainley, D. G.
- Specialization, 866
- Species covariation, 100
diversity, 337, 350
richness, 350
- Sperm, 410
storage, 414
- Sperm transfer in the Adelie Penguin, by F. M. Hunter, L. S. Davis and G. D. Miller, 410
- Spur-winged Plover, 858
- The stability of the oriole hybrid zone in western Kansas, by James D. Rising, 658
- Staffelmauser*, 222
- Stahlecker, Dale W., and Russell B. Duncan, The Boreal Owl at the southern terminus of the Rocky Mountains: undocumented longtime resident or recent arrival?, 153
- Status and trends of loon populations summering in Alaska, 1971–1993, by Deborah J. Groves, Bruce Conant, Rodney J. King, John I. Hodges and James G. King, 189
- Status signaling in Dark-eyed Juncos: perceived status of other birds affects dominance interactions, by Michael J. Grasso, Udo M. Savalli and Ronald L. Mumme, 636

- Status, Distribution and Biogeography of the Birds of Paraguay* by Floyd E. Hayes, reviewed by Robert W. Storer, 891
 Steen, C., see Lombardo, M. P.
 Stepwise molt, 222
Sterna antillarum, 888
 Stomach, 279
 temperature, 844
 Stopover, 382
 biology, 395
 Storer, Robert W., A review of *Status, Distribution and Biogeography of the Birds of Paraguay*, by Floyd E. Hayes, 891
 Stress, 850
 Strip-transects, 100
 Stutchbury, B. J., see Evans Ogden, L. J.
 Subarctic, 820
 Subspecies of the Least Tern in Mexico, by Michael A. Patten and Richard A. Erickson, 888
 Supplementation, 854
 Survival of Northern Pintail ducklings on the Yukon-Kuskokwim Delta, Alaska, by James B. Grand and Paul L. Flint, 48
 Survivorship, 82, 312, 791
 Survivorship, breeding dispersal and mate fidelity in Eastern Kingbirds, by Michael T. Murphy, 82
 Svensson, Erik, and Juha Merilä, Molt and migratory condition in Blue Tits: a serological study, 825
 Swainson's Hawk, 876
 Swann, S., see Yorio, P.
 Symbiosis, 422
 Synchrony, 272
 Syntax, 557
 Systematics, 418, 547
- T**
- Tachycineta bicolor*, 142, 167
 Tameness, 422
 Tannin and protein in the diet of a food-hoarding granivore, the Western Scrub-Jay, by David C. Fleck and Diana F. Tomback, 474
 Tawny-shouldered Blackbird, 832
 Technique-dependent biases in determination of diet composition: an example with Ring-billed Gulls, by Kevin M. Brown and Peter J. Ewins, 34
 Telemetry, 293
 Tella, José L., José A. Donázar and Fernando Hiraldo, Variable expression of sexual mosaic plumage in female Lesser Kestrels, 643
 Temperate rainforest, 706
 Temporal and spatial patterns in the diet of the Common Murres in California waters, by David G. Ainley, Larry B. Spear, Sarah G. Allen and Christine A. Ribic, 691
 A ten-year study of the stopover patterns of migratory passerines during fall migration on Appledore Island, Maine, by Sara R. Morris, David W. Holmes and Milo E. Richmond, 395
 Territoriality, 832
Theristicus caudatus, 440
 Thermal ecology, 424
 microclimate, 114
 Thermoregulation, 371
 Thin-billed Prion, 627
Thinocorus rumicivorus, 418
- Thompson, Jonathan E., and Ronald D. Drobney, Nutritional implications of molt in male Canvasbacks: variation in nutrient reserves and digestive tract morphology, 512
 Thorpe, P. A., see Lombardo, M. P.
 Timing, 433
Todus, 769
 Tomback, D. F., see Fleck, D. C.
 Tombre, I. M., see Dalhaug, L.
 Torres, A. Robin, and Paul L. Leberg, Initial changes in habitat and abundance of cavity-nesting birds and the Northern Parula following Hurricane Andrew, 483
 Towles, T., see Frederick, P. C.
 Trade-offs, 162
 Tree Swallow, 142, 167
Trichostomylus tenuis, 501
Troglodytes aedon, 547, 841
Tyrannus tyrannus, 82
- U**
- Understory, 350
 Unsuitability of the House Finch as a host of the Brown-headed Cowbird, by Daniel R. Kozlovic, Richard W. Knapton and Jon C. Barlow, 253
Uria aalge, 691
 The use of thermal refugia by two small desert birds, by Blair O. Wolf, Kenneth M. Wooden and Glenn E. Walsberg, 424
 Using artificial food patches to evaluate habitat quality for granivorous birds: an application of foraging theory, by Stephan G. Kohlmann and Kenneth L. Risenhoover, 854
- V**
- Vander Wall, Stephen B., A review of *Crows and Jays: A Guide to the Crows, Jays and Magpies of the World*, by S. Madge and H. Burn, 895
Vanellus spinosus, 858
 Variable expression of sexually mosaic plumage in female Lesser Kestrels, by Jose L. Tella, Jose A. Donazar and Fernando Hiraldo, 643
 Variation in egg size of the Northern Pintail, by Paul L. Flint and J. Barry Grand, 162
 Veloso, C., see Novoa, F. F.
 Verbeek, N. A. M., see Rendell, W. B.
 Verdin, 424
 Video documentation of a Brown-Headed Cowbird nestling ejecting an Indigo Bunting nestling from the nest, by Donald C. Dearborn, 645
 Viñuela, Javier, Establishment of mass hierarchies in broods of the Black Kite, 93
 Visual display, 885
 Vocalization, 418
 Vries, T. de, see DeLay, L. S.
- W**
- Wachob, Douglas G., The effect of thermal microclimate on foraging site selection by wintering Mountain Chickadees, 114
 Wallace, E. A. H., see Wallace, G. E.
 Wallace, George E., Hiram González Alonso, Martin K. McNicholl, Daysi Rodríguez Batista, Ramona Oviedo Prieto, Alejandro Llanes Sosa,

- Bárbara Sánchez Oria and Elizabeth A. H. Wallace, Winter surveys of forest-dwelling Neotropical migrant and resident birds in three regions of Cuba, 745
- Walsberg, G. E., see Wolf, B. O.
- Ward, D. H., see Derksen, D. V.
- Watanuki, Y., see Kato, A.
- Water chemistry, 27
- Weimerskirch, H., see Sagar, P. M.
- Westerman, M., see Christidis, L.
- Western Sandpiper, 431
- Wetland selection by American Green-winged Teal breeding in British Columbia, by Gil A. Paquette and C. Davison Ankney, 27
- Wetlands, 837
- White-crowned Sparrow, 428, 567
- Whittingham, Linda A., Arturo Kirkconnell and Laurene M. Ratcliffe, Breeding behavior, social organization and morphology of Red-shouldered (*Aegelaius assimilis*) and Tawny-shouldered (*A. humeralis*) Blackbirds, 832
- Wiklund, Crister G., Body length and wing length provide univariate estimates of overall body size in the Merlin, 581
- Wild Turkey, 589
- Wiley, R. Haven, A review of *Bird Song, Biological Themes and Variations*, by C. K. Catchpole and P. J. B. Slater, 670
- Willow Tit, 863
- Willson, Mary F., and TallChief A. Comet, Bird communities of northern forests: patterns of diversity and abundance, 337
- Willson, Mary F., and TallChief A. Comet, Bird communities of northern forests: ecological correlates of diversity and abundance in the understory, 350
- Wilsonia citrina*, 736
- Wing length, 581
- Wingfield, J. C., see Holberton, R. L.
- Winter distribution, 876
 - foraging, 114
 - habitat use, 640
 - microclimate, 114
- Winter surveys of forest-dwelling Neotropical migrant and resident birds in three regions of Cuba, by George E. Wallace, Hiram González Alonso, Martin K. McNicholl, Daysi Rodríguez Batista, Ramona Oviedo Prieto, Alejandro Llanes Sosa, Bárbara Sánchez Oria and Elizabeth A. H. Wallace, 745
- Wintering, 653, 706
- Wintering Swainson's Hawks in California's Sacramento-San Joaquin River Delta, by Sebastian K. Herzog, 876
- Wolf, Blair O., Kenneth M. Wooden and Glenn E. Walsberg, The use of thermal refugia by two small desert birds, 424
- Wood, C., see Kelly, J. P.
- Wooden, K. M., see Wolf, B. O.
- Woodpecker, 483
- Woodpeckers, A Guide to Woodpeckers of the World*, by H. Winkler, D. A. Christie, and D. Nurney, reviewed by Richard N. Conner, 667
- Woods, Christopher P., and Tom J. Cade, Nesting habits of the Loggerhead Shrike in sagebrush, 75
- Woolfenden, G. E., see Fitzpatrick, J. W.
- Wunderle, J. M., Jr., see Latta, S. C.

Y

- Yellow-crowned Manakin, 722
- Yogeve, Akiva, and Yoram Yom-Tov, Indeterminacy in a determinate layer: the Spur-winged Plover, 858
- Yom-Tov, Y., see Yogeve, A
- Yorio, Pablo, P. Dee Boersma and Scott Swann, Breeding biology of the Dolphin Gull at Punta Tombo, Argentina, 208
- Young growth, 706
- Yukon, 337, 350

Z

- Zeller, T. K., see Lombardo, M. P.
- Zonotrichia capensis*, 873
- leucophrys*, 245
- leucophrys oriantha*, 428
- leucophrys pugetensis*, 567
- Zosterops lateralis*, 780