

## INDICES TO VOLUME 55

COMPILED BY FRED L. BURNSIDE

### Author Index

(Entries followed by (r) are authors of articles reviewed)

- Ahlquist, J. E., 131(r), 507-508(r)  
Alerstam, T., 265(r), 492(r)  
Alonso, J. C., 510(r)  
Altman, R. L., 108-109  
American Ornithologists' Union, 280-283(r)  
Anderson, B. W., 126(r), 272(r)  
Anderson, D. R., 401-402(r)  
Anokhina, Iu. R., 134(r)  
Anthony, R. G., 499(r)  
Arcese, P., 494(r)  
Arendt, W. J., 104-107, 376-378  
Arlettaz, R., 400-401(r)  
Armstrong, E., 274(r)  
Askins, R. A., 127-128(r)  
Auger, R. C., 265(r)  
Avdanin, V. O., 496(r)  
Avery, M., 133-134(r)  
Avisé, J. C., 405-406(r)  
Babenko, V. G., 275(r)  
Bailey, R. O., 405(r)  
Baker, M. C., 392(r), 408(r)  
Baldassarre, G. A., 220-229  
Bardin, A. V., 497(r)  
Barklow, W. E., 258-259  
Bart, J., 267-268(r), 415-423  
Barysheva, I. K., 275(r)  
Bastian, H.-V., 497(r)  
Batyskaya, L. V., 505-506(r)  
Baur, K. M., 409(r)  
Beason, R. C., 489-490, 492(r)  
Beck, W., 265(r)  
Beehler, B., 396(r)  
Bendt, R., 409(r)  
Bengtsson, H., 396(r)  
Berthold, P., 392(r), 403-404(r), 492(r)  
Besser, B. R., 435-443  
Besser, J. F., 435-443  
Best, L. B., 266-267(r)  
Bibby, C. J., 125(r), 505(r)  
Bilcke, G., 398(r)  
Bildstein, K. L., 143-150  
Bird, D. M., 257-258  
Blank, J. L., 268(r)  
Blokpoel, H., 81-88, 424-434  
Blus, L. J., 129(r), 501(r)  
Boates, J. S., 485  
Bochenski, Z., 506(r)  
Bock, C. E., 97-103, 401(r), 515-516(r)  
Bock, J. H., 97-103, 401(r)  
Bohall, P. G., 181-189  
Bollinger, E. K., 114-116  
Borecky, S. R., 406(r)  
Borthwick, J. S., 286(r)  
Bortolotti, G. R., 54-66, 467-481  
Bossema, I., 269(r)  
Bourne, W. R. P., 277-288(r)  
Bradley, D. C., 392(r)  
Brennan, L. A., 343-348  
Bridgeland, W. T., 401(r)  
Brown, C. H., 135-136(r)  
Brown, E. R., 398(r)  
Brown, J. L., 398(r)  
Brown, P. W., 382-383  
Brown, S. D., 398(r)  
Bruderer, B., 493(r)  
Brusewitz, G., 512-513(r)  
Brush, A. H., 405(r)  
Bub, H., 136(r)  
Buccher, E. H., 393(r)  
Buchanan, J. B., 343-348  
Buckholtz, P. G., 204-213  
Burnham, K. P., 401-402(r)  
Burnham, W., 274-275(r)  
Burrell, R., 89-96  
Burton, F. G., 404(r)  
Campbell, B., 494(r)  
Camphuysen, K. C. J., 405(r)  
Cannell, P. F., 112-114, 487-489  
Carlisle, M. J., 402(r)  
Carney, S. M., 276(r)  
Carrick, R., 287-308  
Carson, L. B., 246-247  
Casey, D., 399-400(r)  
Caslick, J. W., 114-116, 401(r)  
Chamberlain, J. A., 258-259  
Chantrey, D. F., 134(r)  
Chapman, B., 251-252  
Cherry, J. D., 487-489  
Clapp, R. B., 309-321  
Clark, J. A., 160-180  
Clark, W. S., 143-150  
Clench, M. H., 406(r)  
Clout, M. N., 408(r)  
Colbourne, R., 119(r)  
Collopy, M. W., 181-189  
Colvin, B. A., 279(r)  
Congdon, J. D., 122(r)

- Conner, R. N., 274(r)  
 Conover, M. R., 380-382  
 Cooke, F., 278-279(r)  
 Corbin, K. W., 509(r)  
 Cracraft, J., 131(r), 278(r), 506(r)  
 Craig, J. L., 496(r)  
 Crawford, R. D., 510(r)  
 Crawford, R. L., 196-203  
 Croxall, J. P., 123(r)  
 Cugnasse, J.-M., 501-502(r)  
 Dabelsteen, T., 135(r)  
 David, A. C. F., 277-228(r)  
 Davison, G. W. H., 126(r)  
 Dawson, W. R., 403(r)  
 Dedon, M. F., 277(r)  
 DeGrazio, J. W., 435-443  
 DeGroat, R. S., 131(r)  
 Demers, A. M., 391(r)  
 Derim-Oglu, E. N., 270(r)  
 Derleth, E. L., 275(r)  
 Dhindsa, M. S., 123(r)  
 Dick, J. A., 277(r)  
 Dickson, J. G., 274(r)  
 Diem, K. L., 122-123(r)  
 Dinsmore, J. J., 513-514(r)  
 Dmitreiva, L. P., 497-498(r)  
 Dow, D. D., 398(r)  
 Drent, B., 125(r)  
 Duebbert, H. F., 268(r)  
 Duncan, B. W., 391(r)  
 Dunning, J. B., 514(r)  
 DuWors, M. R., 382-383  
 Dwyer, T. J., 275(r)  
 Ebenhard, T., 132-133(r)  
 Edwards, M. H., 204-213  
 Egorova, G. V., 270(r)  
 Elder, W. H., 250  
 Eltzroth, E. K., 259-261  
 Enquist, M., 497(r)  
 Ens, B., 133(r)  
 Etchecopar, R.-D., 283-285(r)  
 Euler, D., 274(r)  
 Evans, D. L., 143-150  
 Faaborg, J., 376-378  
 Fancher, J. M., 241-243  
 Feekes, F., 135(r)  
 Fetterolf, P. M., 81-88  
 Fiala, K. L., 122(r)  
 Field, M., 143-150  
 Fischer, D. H., 220-229  
 Fitzgerald, A. E., 403(r)  
 Fleischer, R. C., 278(r), 404-405(r), 444-456  
 Flint, V., 502(r)  
 Flock, W. L., 369-375  
 Foggo, M. N., 505(r)  
 Forbes, L. S., 251-252  
 Ford, J., 277(r)  
 Freemark, K. E., 272(r)  
 Funderburg, J. B., Jr., 516-517(r)  
 Galbraith, H., 121(r)  
 Gano, R. D., Jr., 108-109  
 Gasprotto, O., 265(r)  
 Gatti, R. C., 500-501(r)  
 Gaze, P. D., 408(r)  
 Geramita, J. M., 278-279(r)  
 Gilbert, R., 322-329  
 Gill, R. E., Jr., 119(r), 491(r)  
 Glück, E., 499(r)  
 Glutz von Blotzheim, U., 409(r)  
 Goede, A. A., 130(r)  
 Goodman, E. D., 272-273(r)  
 Göppel, R., 129(r)  
 Gowaty, P. A., 378-380  
 Graber, J. W., 285(r)  
 Graber, R. R., 285(r)  
 Grabovskiy, V. I., 397-398(r)  
 Grant, P. J., 136(r)  
 Grant, P. R., 407(r)  
 Gratson, M. W., 246-247  
 Gray, D. A., 403(r)  
 Grazhdankin, A., 502(r)  
 Green, W. L., 369-375  
 Greenwood, P. J., 494(r)  
 Greig-Smith, P. W., 503(r)  
 Grubb, T. C., Jr., 271-272(r), 273-274(r)  
 Grüll, A., 125(r)  
 Guarino, J. L., 435-443  
 Hall, G. A., 409(r)  
 Halliday, T., 285-286(r)  
 Hamas, M. J., 117-118  
 Handel, C. M., 119(r), 491(r)  
 Handford, P., 404(r)  
 Hardy, J. W., 509(r)  
 Harper, P. C., 394(r)  
 Harrington, B. A., 160-180  
 Harrison, C. S., 309-321  
 Harvey, P. H., 494(r)  
 Hay, J. R., 403(r)  
 Hein, D., 399-400(r)  
 Heine, G., 497(r)  
 Helle, E., 128(r)  
 Helle, P., 128(r), 274(r)  
 Helyar, J., 512(r)  
 Henckel, E., 143-150  
 Henny, C. J., 129(r), 501(r)  
 Herman, S. G., 343-348  
 Herrera, C. M., 503-504(r)  
 Hibbard, E. A., 369-375  
 Hines, J. E., 495(r)  
 Hirsch, J., 276(r)  
 Hirth, D. H., 214-219  
 Hockey, P. A. R., 267(r)  
 Hoffman, R., 503(r)

- Högstedt, G., 265(r), 492(r)  
 Horsfall, J. A., 394(r)  
 Houghton, N. T., 247–249  
 Houston, C. S., 382–383  
 Hruby, T., 160–180  
 Hüe, F., 283–285(r)  
 Hunt, G. L., Jr., 122(r)  
 Hupp, J. W., 494(r)  
 Hussell, J. T., 117  
 Hyslop, C., 391(r)  
 Jablonski, B., 504–505(r)  
 James, R. D., 277(r)  
 Janes, S. W., 498–499(r)  
 Järvinen, A., 126(r)  
 Jarvinen, O., 501(r)  
 Jenkins, J. M., 410(r)  
 Jenni, L., 491(r), 493(r)  
 Johnsgard, P. A., 410–411(r)  
 Johnson, D. R., 483–485  
 Johnson, T. M., 343–348  
 Johnson, W. N., 490  
 Johnston, R. F., 404–405(r), 444–456  
 Jordano, P., 398(r)  
 Jorde, D. G., 510(r)  
 Jorgensen, P. D., 67–80  
 Joste, N. E., 269(r)  
 Jouventin, P., 508–509(r)  
 Jussi, F., 136(r)  
 Kaiser, M. S., 407(r)  
 Kakizawa, R., 406(r)  
 Karr, J. R., 272(r)  
 Keister, G. P., 499(r)  
 Kent, T. H., 513–514(r)  
 Kerlinger, P., 125–126(r)  
 Kharitonov, S. P., 510–511(r)  
 Khayutin, S. N., 497–498(r)  
 Kiepenheur, J., 265(r)  
 Kilham, L., 349–356, 411–412(r)  
 Kilpi, M., 266(r), 493(r)  
 King, A. P., 408–409(r)  
 Kirk, E. L., 285(r)  
 Klarowski, R., 501(r)  
 Kleinpaste, R., 119(r)  
 Klitz, W. J., 404–405(r)  
 Knittle, C. E., 435–443  
 Kochert, M. N., 357–368  
 Koenig, D., 513–514(r)  
 Koenig, W. D., 269(r), 271(r)  
 Konstantinov, V. M., 275(r)  
 Korschgen, C. E., 369–375  
 Korzum, L. P., 504(r)  
 Koshelev, A. I., 395(r)  
 Kosten, P. A., 386(r)  
 Kostin, Yu. V., 514(r)  
 Kostina, G. N., 268–269(r)  
 Krapu, G. L., 510(r)  
 Krechmar, A. V., 123–124(r)  
 Kuitunen, M., 279(r)  
 Kunkel, J. G., 133(r)  
 Kuroda, N., 406(r)  
 Laake, J. L., 494(r)  
 Lange, K. I., 412–413(r)  
 Langham, N. P., 495(r)  
 Lapham, H. S., 491(r)  
 Layne, J. N., 123(r)  
 Leathwick, J. R., 403(r)  
 Leberman, R. C., 412(r), 486–487  
 Lee, D. S., 516–517(r)  
 Lehnhausen, W. A., 128(r)  
 Lehrer, P. H., 125–126(r)  
 Leisler, B., 497(r)  
 Leopold, A. S., 277(r)  
 Lima, S. L., 398–399(r)  
 Lindeboom, H. J., 399(r)  
 Little, B., 510(r)  
 Lokemoen, J. T., 268(r)  
 Longcove, J. R., 128(r)  
 Lorenz, A., 129(r)  
 Lowther, P. E., 444–456  
 Lundberg, P., 120(r)  
 Mackowicz, R., 501(r)  
 Maend, R., 514(r)  
 Maier, V., 135(r), 279–280(r)  
 Maron, J. L., 336–342  
 Marsh, R. L., 129(r), 403(r)  
 Martin, K., 250–251  
 Martindale, S., 127(r)  
 Mason, A., 512(r)  
 Massey, B. W., 67–80  
 McAuley, D. G., 275(r)  
 McClure, H. E., 230–240  
 McGarigal, K., 490  
 McLean, I. G., 494(r)  
 Meads, M. J., 399(r)  
 Mearns, R., 133(r)  
 Meek, E. R., 510(r)  
 Melquist, W. E., 483–485  
 Melvin, S. M., 402(r)  
 Mengel, R. M., 512(r)  
 Merritt, P. G., 252–253  
 Mikkola, H., 412(r)  
 Middleton, A. L. A., 383–386  
 Mineau, P., 81–88  
 Mitchell, C. A., 18–30  
 Mitchell, G. J., 495(r)  
 Moeeds, M. J., 399(r)  
 Møller, A. P., 121–122(r), 499–500(r)  
 Moore, J., 254–257, 275–276(r)  
 Mora, T. A. V., 104–107  
 Moritsch, M. Q., 357–368  
 Morris, R. D., 424–434, 457–466  
 Morrison, M. L., 330–335, 509(r)  
 Mossman, M. J., 412–413(r)  
 Mott, D. F., 435–443

- Mougín, J.-L., 508-509(r)  
 Mousseau, P., 143-150  
 Mumme, R. L., 269(r), 271(r)  
 Murphy, M. T., 127(r)  
 Murray, M. D., 287-308  
 Myers, J. P., 269-270(r), 336-342  
 Nash, S. V., 277(r)  
 Neilhammer, K. R., 407-408(r)  
 Neusser, V., 493(r)  
 Newton, I., 510(r)  
 Nichols, J. E., 492(r)  
 Nicoll, M., 130(r)  
 Nieboer, E., 130(r)  
 Nisbet, I. C., 1-17  
 Nolan, V., Jr., 268(r)  
 Norton, R. L., 243-246  
 Nudds, T. D., 392(r)  
 Numachi, K., 406(r)  
 Nydegger, N. C., 261-264  
 Ohmart, R. D., 126(r), 272(r)  
 Olson, K., 406(r)  
 Ong, B. G., 204-213  
 Orell, M., 495-596(r)  
 Otis, D. L., 435-443  
 Ottaway, J. R., 287-308  
 Owen, D., 514-515(r)  
 Owen, J., 413-414(r)  
 Panov, E. N., 124(r), 268-269(r)  
 Parker, T. A., III, 498(r)  
 Parkes, K. C., 406(r)  
 Patee, O. H., 129(r)  
 Patton, J. C., 405-406(r)  
 Payne, R. B., 136-137(r)  
 Peck, M. K., 277(r)  
 Peters, W. D., 271-272(r)  
 Petersen, P. C., 513-514(r)  
 Peterson, A. W., 273-274(r)  
 Petrak, M., 131-132(r)  
 Pettifor, R. A., 271(r)  
 Pierce, R. J., 505(r)  
 Pitelka, F. A., 269(r), 271(r)  
 Pitts, T. D., 482-483  
 Ponomareva, T. S., 395-396(r)  
 Potter, E. F., 516-517(r)  
 Powell, G. V. N., 393-394(r)  
 Prevost, Y., 130(r)  
 Price, F. E., 515-516(r)  
 Prince, H. H., 272-273(r)  
 Prinzinger, R., 129(r), 503(r)  
 Prouty, R. M., 129(r)  
 Pruett-Jones, M. A., 270-271(r)  
 Pruett-Jones, S. G., 270-271(r), 396(r)  
 Pugsek, B. H., 122-123(r), 393(r)  
 Pulliainen, E., 274(r)  
 Quammen, M. L., 498(r)  
 Quay, T. L., 516-517(r)  
 Quinlan, S. E., 128(r), 394(r)  
 Rabe, D. L., 272-273(r)  
 Rabovsky, V. I., 511-512(r)  
 Raffaele, H. A., 517-518(r)  
 Ramsa, A. D. K., 266(r)  
 Ranvaud, J., 265(r)  
 Rasa, O. A. E., 279-280(r)  
 Ratti, J. T., 494(r)  
 Rauzon, M. J., 309-321  
 Remsen, J. V., Jr., 498(r), 509-510(r)  
 Renssen, T. A., 128-129(r)  
 Rheinwald, G., 414(r)  
 Rice, J., 126(r), 272(r)  
 Richards, M. H., 457-466  
 Ricketts, C., 123(r)  
 Riddiford, N., 265(r)  
 Ringelman, J. K., 128(r)  
 Rising, J. D., 506(r)  
 Ritter, L. V., 48-53  
 Robbins, C. S., 516-517(r)  
 Robinson, S. R., 259-261  
 Robson, D. S., 267-268(r)  
 Rockwell, R. F., 278-279(r)  
 Rodenhouse, N. L., 266-267(r)  
 Roell, A., 269(r)  
 Roosa, D. M., 513-514(r)  
 Rosenfield, R. N., 246-247  
 Ross, H. A., 406-407(r)  
 Ross, R. K., 276-277(r)  
 Rothstein, S. I., 267(r), 396-397(r)  
 Roux, J.-P., 508-509(r)  
 Ryden, O., 396(r)  
 Rymkevich, T. A., 504(r)  
 Rytman, H., 132-133(r)  
 Saenger, P. G., 387-388  
 Sattler, G., 415-423  
 Sauro, P., 493(r)  
 Schaffner, U., 493(r)  
 Scheich, H., 279-280(r)  
 Schick, C. T., 343-348  
 Schmidt-Koenig, K., 265(r)  
 Schreiber, E. A., 121(r)  
 Schreiber, R. W., 121(r)  
 Schuler, W., 125(r)  
 Schwalb, H., 391-392(r)  
 Searcy, W. A., 511(r)  
 Seibt, U., 135(r)  
 Semenov-Tyan-Shanskii, O. I., 518(r)  
 Serie, J. R., 265-266(r)  
 Sharp, D. E., 265-266(r), 268(r)  
 Sheldon, F. H., 508(r)  
 Shelton, L. A., 491(r)  
 Sherman, G. L., 392(r)  
 Sherrod, S. K., 414(r)  
 Sherry, D., 133-134(r)  
 Shields, G. F., 509(r)  
 Short, L. L., 139-141(r)  
 Shurunov, N. A., 505-506(r)

- Sibley, C. G., 131(r), 507–508(r)  
 Siebenrock, K.-H., 497(r)  
 Simon, E., 403(r)  
 Skipnes, K., 124–125(r)  
 Slawinska, K., 501(r)  
 Smith, D. G., 322–329  
 Smith, G. W., 261–264  
 Smith, J. N. M., 494(r)  
 Smith, L. M., 494(r)  
 Smith, P. W., 247–249  
 Sobkowiak, S. T., 257–258  
 Souey, L., 143–150  
 Southern, L. K., 128(r)  
 Southern, W. E., 128(r)  
 Spanns, A. L., 128–129(r)  
 Spaulding, S. R., 279(r)  
 Spero, V. M., 482–483  
 Squibb, R. C., 122(r)  
 Stafford, C. J., 501(r)  
 Stahl, J.-C., 508–509(r)  
 Steenhof, K., 357–368  
 Stevens, A., 133–134(r)  
 Stevens, E., 396–397(r)  
 Stevenson, H. M., 196–203  
 Stewart, P. A., 493(r)  
 Summers, R. W., 120(r)  
 Swann, R. L., 130(r), 266(r)  
 Swanson, G. A., 408(r)  
 Swennen, C., 121(r)  
 Swineford, D. M., 18–30  
 Tacha, T. C., 402(r)  
 Tainen, J., 497(r)  
 Tegelstrom, H., 132–133(r)  
 Temple, S. A., 402(r)  
 Terhivuo, J., 279(r)  
 Tessier, G., 81–88  
 Tessier, G. D., 424–434  
 Theimer, T. C., 392(r)  
 Thomas, D. K., 505(r)  
 Thompson, B. C., 380–382  
 Toland, B., 250, 386–387  
 Tomek, T., 504(r), 506(r)  
 Tormala, T., 279(r)  
 Trauger, D. L., 265–266(r)  
 Tullett, S. G., 404(r)  
 Utida, S., 406(r)  
 Vaisanen, R. A., 501(r)  
 Van Dijk, J., 405(r)  
 Van Horne, B., 402–403(r)  
 Veiga, J. P., 510(r)  
 Verner, J., 396–397(r)  
 Vickery, W. L., 392(r)  
 Viehman, W., 120(r)  
 Walters, J., 504(r)  
 Wanless, S., 120–121(r)  
 Wasserman, F. E., 160–180  
 Watada, M., 406(r)  
 Weatherhead, P. J., 267(r)  
 Weathers, W. W., 137–139(r)  
 Webb, P., 383–386  
 Weimerskirch, H., 508–509(r)  
 Weir, R. D., 204–213  
 Wenner, A. S., 214–219  
 Weseloh, D. V., 190–195  
 West, M. J., 408–409(r)  
 White, D. H., 18–30  
 Wicker, W., 135(r)  
 Wickler, S. J., 129(r)  
 Wijnandts, H., 398(r)  
 Williamson, J. H., 274(r)  
 Wilson, A. C., 133(r)  
 Wilson, R. P., 109–112  
 Wiltshcko, R., 119(r)  
 Wiltshcko, W., 265(r)  
 Winkel, D., 397(r)  
 Winkel, W., 397(r), 409(r)  
 Winkler, D. W., 406(r)  
 Witt, H.-H., 405(r)  
 Wood, D. A., 518(r)  
 Wood, M., 502–503(r)  
 Wyles, J. S., 133(r)  
 Yacoe, M. E., 403(r)  
 Yahner, R. H., 273(r), 500(r)  
 Yensen, D. L., 261–264  
 Yunick, R. P., 31–37, 391(r)  
 Zembal, R., 67–80  
 Ziesemer, F., 139(r)  
 Zimmer, U. E., 134(r)  
 Zimmerman, J. L., 38–47  
 Zink, R. M., 406(r), 407(r)  
 Zubakin, V. A., 496(r)  
 Zykova, L. Yu., 124(r)

## Subject Index

The subject matter and extensive species lists within the following articles will not be included in the Subject Index. We refer you to these articles on pages 97-103, 160-180, 196-203, and 230-240.

*Importance of sycamores to riparian birds in southeastern Arizona*, by Carl E. Bock and Jane H. Bock. Pp. 97-103

*The effect of ditching for mosquito control on salt marsh use by birds in Rowley, Massachusetts*, by Jo Ann Clarke, Brian A. Harrington, Thomas Hruby, and Fred E. Wasserman. Pp. 160-180

*Patterns of spring and fall migration in northwest Florida*, by Robert L. Crawford and Henry M. Stevenson. Pp. 196-203

*The occurrence of hippoboscids flies on some species of birds in southern California*, by H. Elliott McClure. Pp. 230-240

*Acanthis cannabina*, nesting ecology, 499(r)

Accentors, see *Prunella*

*Accipiter cooperi*, banding, 391(r), migration, census, 415-423

*A. gentilis*, predation by, 139(r)

*A. striatus*, anti-predator behavior, 125-126(r); Florida survey, 181-189; migration, census, 415-423

*Actitis macularia*, predation on, 117-118

*Aegithalos caudatus*, morphology, 503(r)

*Aegolius acadicus*, differential sizes, 204-213

*A. funereus*, vocalization, 136(r)

Africa, Ploceidae, 136-137(r)

*Agelaius phoeniceus*, exclosure for, 114-116; metabolic rates of nestlings, 122(r); egg candle, 257-258; sex ratio, 267(r), 268(r); damage to crops, 401(r); population decline, 435-443

*Aix sponsa*, in parks, 89-96

Alabama, Red-shouldered Hawk, 129(r)

Alaska, Common Eider, 128(r)

Dunlin, 119(r)

Western Sandpiper, 119(r)

Albatross, Royal, see *Diomedea epomophora*

Wandering, see *Diomedea exulans*

*Alca torda*, book review, 409(r)

*Amblyornis macgregoriae*, ecology, 270-271(r)

*Ammodramus maritimus*, biology, management, 516-517(r)

*Anas acuta*, in parks, 89-96

*A. clypeata*, in parks, 89-96

*A. crecca*, in parks, 89-96

*A. platyrhynchos*, in parks, 89-96; nesting 268(r); mortality, 401-402(r); physiology, 403(r); morphology, 500-501(r); feeding, ecology, 510(r)

*A. rubripes*, in parks, 89-96; survival, 128(r)

*A. strepera*, in parks, 89-96; nesting, 268(r); nesting, 495(r)

Anatidae, evolutionary genetics, 406(r), systematics, 405-406(r)

*Anser*, fossil bones, 506(r)

*Anthornis melanura*, food 408(r)

*Anthus novaeseelandiae*, distribution, 505(r)

*Aphelocoma coerulescens*, nesting growth, 48-53

*Aptenodytes patagonica*, nitrogen cycle, 399(r)

*Apteryx australis*, banding, 119(r); nesting behavior, 125(r)

*Aquila chrysaetos*, size variation, 54-66; dispersal and migration 357-368

*Ardea herodias*, as predator, 251-252; reproduction, food habits, 393-394(r)

*Arenaria melanocephala*, banding, 491(r)

*Argusianus argus*, sexual displays, 126(r)

Arizona, riparian birds, 97-103

*Asio flammeus*, Galapagos, 131(r); foraging behavior, 279(r)

*A. otus*, energetics, 398(r)

Australia, Silver Gull, color marking, 287-308

Avocet, American, see *Recurvirostra americana*

*Aythya affinis*, distribution, 405(r)

*A. americana*, distribution, 405(r)

*A. collaris*, in parks, 89-96; distribution, 405(r)

*A. marila*, in parks, 89-96

*A. valisineria*, migration, winter distribution, 265-266 (r); distribution, 405(r)

Babbler, Grey-crowned, see *Pomatostomus temporalis*

### banding and longevity

Brambling, banding, 491(r)

Canada, annual banding report, 391(r)

Dunlin, color-marked, 118(r)

Finch, Purple, age/sex determination, 391(r)

Goldeneye, Common, survival, 382-383

- Goldfinch, American, longevity, 383–386  
 Gull, Herring, Great Lakes, 190–195  
     Silver, identification and band durability, 287–308  
 Hawk, Cooper's, banding, 391(r)  
 Kiwi, North Island Brown, 118(r)  
 Sanderling, longevity, 485  
 Sandpiper, Western, color marking, 118(r)  
 Tern, Roseate, winter quarters and migration, 1–17  
 Turnstone, Black, 49(r)
- behavior**
- Birds of Paradise, display and dispersion, 396(r)  
 Bluebird, Eastern, killed by House Sparrow, 378–380  
 Chaffinch, territory, 497(r)  
 corvid nest defense, 269(r)  
 Cowbird, Brown-headed, spatial occurrence, 396–397(r)  
 Crow, American, cooperative breeding, 349–356  
     as predator, 117–118  
     Hooded, social structure, 397–398(r)  
 Flycatcher, Pied, behavior, 270(r), 497–498(r)  
     polygyny, 397(r)  
 Harrier, Northern, migration, 143–150  
 Hawk, Sharp-shinned, anti-predator behavior, 125–126(r)  
 Heron, Great Blue, eating birds, 251–252  
 Kestrel, American, attacks human, 386–387  
     dispute between females, 387–388  
 Kiwi, North Island Brown, nesting behavior, 125(r)  
 Lark, Horned, altruism, 489–490  
 Loon, Common, tremolo call, 258–259  
 Mockingbird, Northern, territoriality, 252–253  
 Nightingale, territoriality, 125(r)  
 Pheasant, Great Argus, sexual displays, 126(r)  
 Ptarmigan, Willow, nest parasitism, 250–251  
 Pukeko, breeding, 496(r)  
 Sanderling, behavior, 269–270(r)  
 Screech-Owl, Eastern, habitat, 322–329  
 Skua, Arctic, feeding, 497(r)  
 Sparrow, House, kills bluebird, 378–380  
     Song, habitat, 330–335  
 Swallow, Violet-green, inter-specific cooperation, 259–261  
 Tern, Arctic, incubation, 124–125(r)  
 Tit, Crested, territoriality, 497(r)  
     Great, parental feeding, 396(r)
- Warbler, Cetti's, polygyny and ecology, 125(r)  
     MacGillivray's, habitat, 330–335  
     Willow, territory, 497(r)  
     Wilson's, habitat, 330–335  
 Wheatears, territoriality, 497(r)  
 Woodpecker, Acorn, reproduction, 269(r)  
     Red-headed, nest defense, 250  
 Belgium, banding statistics, 136(r)  
 Bellbird, see *Anthornis melanura*  
 Blackbird, European, see *Turdus merula*  
     Red-winged, *Agelaius phoeniceus*  
 Blackcap, see *Sylvia atricapilla*  
 Bluebird, Mountain, see *Sialia currucoides*  
     Western, see *Sialia mexicana*  
 Bobolink, see *Dolichonyx oryzivorus*  
*Bonasa*, fossil bones, 506(r)  
*Bonasa umbellus*, habitat, 500(r)  
 Booby, Red-footed, see *Sula sula*
- books and monographs**
- body weights, North American birds, 514(r)  
 California, birds of Deep Canyon, 137–139(r)  
 camouflage and mimicry, 514–515(r)  
 China, birds of, 283–285(r)  
 eco-ornithological glossary, 409(r)  
 Crimea, birds of, 514(r)  
 Dipper, population ecology, 515–516(r)  
 Europe, bird observatories, 136(r)  
     birds of, 409(r)  
 feeding strategy, 413–414(r)  
 Falcon, Peregrine, fledgling behavior, 414(r)  
 Goshawk, predation, 139(r)  
 grouse of the world, 410–411(r)  
 Guam, birds of, 410(r)  
 Illinois, birds of, wood warblers, 285(r)  
 Iowa, birds of, 513–514(r)  
 Kite, Hook-billed, distribution, 286(r)  
 Korea, birds of, 283–285(r)  
 Ligonier Valley, birds of, 412(r)  
 Mongolia, birds of, 283–285(r)  
 North America, birds of, 280–283(r)  
 owls, Europe, 412(r)  
 Ploceidae, west Africa, 136–137(r)  
 Puerto Rico, birds of, 517–518(r)  
 sexual strategy, 285–286(r)  
 Sparrow, Seaside, ecology and management, 516–517 (r)  
 terns, 514(r)  
 Tetraonidae, 518(r)  
 Virgin Islands, birds of, 517–518(r)  
 West Germany, breeding atlas, 414(r)  
 West Virginia, birds of, 409(r)  
 Wisconsin, breeding birds, 412–413(r)

- woodpeckers, eastern North America, 411-412(r)  
 Red-cockaded, symposium, 518(r)  
 world, 139-141(r)
- Bowerbird, MacGregor's, see *Amblyornis macgregoriae*
- Brambling, see *Fringilla montifringilla*
- Branta canadensis*, in parks, 89-96
- Brazil, Eared Dove, breeding, 393(r)
- Bristlehead, Bornean, see *Pityriasis gymnocephala*
- British Columbia, Black Tern, 251-252  
 Great Blue Heron, 251-252
- Bubo bubo*, vocalization, 136(r)
- Bubo virginianus*, insecticide induced mortality, 129(r);  
 vocalization, 135-136(r)
- Bucephala clangula*, in parks, 89-96; morphology, 276(r);  
 survivorship, 382-383; distribution, 405(r)
- B. islandica*, morphology, 276(r)
- Budgerigar, see *Melopsittacus undulatus*
- Bunting, Common Reed, see *Emberiza shoeniclus*  
 Ortolan, see *Emberiza hortulana*  
 Rustic, see *Emberiza rustica*  
 Yellow-breasted, See *Emberiza aureola*
- Bustard, Houbara, see *Chlamydotis undulata*
- Buteo jamaicensis*, vocalization, 135-136(r);  
 Florida survey, 181-189; egg candler, 257-258; dispersal, migration, 357-368; census, migration, 415-423; reproductive success, 498-499(r)
- B. lagopus*, egg candler, 257-258; migration census, 415-423
- B. lineatus*, insecticide induced mortality, 129(r); Florida survey, 181-189; habitat, 274(r); migration, census, 415-423
- B. platypterus*, food, 246-247; habitat, 274; migration, census, 415-423
- Butorides striatus*, food habits, 407-408(r)
- Cacicus cela*, vocalization, 135(r)
- Calidris alba*, behavior, 269-270; technique for sexing, 336-342; longevity, 485
- C. alpina*, color marking, 119(r); weight variation during molt, 130(r); technique for sexing, 343-348; feeding, 498(r)
- C. himantopus*, food habits, 220-229
- C. bairdii*, food habits, 220-229
- C. mauri*, color marking, 119(r); food habits, 220-229; feeding, 498(r)
- C. minutilla*, food habits, 220-229
- California, birds of Deep Canyon, 137-139(r)  
 American Avocet, 498(r)
- California Gull, genetics, 406(r)
- Clapper Rail, 67-80
- Dunlin, 498(r)
- Least Tern, 241-243
- Long-billed Dowitcher, 498(r)
- Mourning Dove, 277(r)
- Sanderling, winter, 336-342
- Scrub Jay, 498(r)
- Short-billed Dowitcher, 498(r)
- Western Sandpiper, 498(r)
- Willet, 498(r)
- Callaeas cinerea*, population decline, 403(r)
- Canvasback, see *Aythya valisineria*
- Capitonidae, song, 135(r)
- Carduelis tristis*, longevity, 383-386
- Caprimulgus europaeus*, vocalization, 136(r)
- Carduelis carduelis*, nesting ecology, 499(r)
- C. chloris*, nesting ecology, 499(r)
- Carpodacus mexicanus*, parasites, 502-503(r)
- C. purpureus*, aging and sexing, 391(r)
- Catharacta skua*, 409(r)
- Catoptrophorus semipalmatus*, feeding, 498(r)
- Certhia familiaris*, food of nestlings, 279(r)
- Cettia cetti*, polygyny, 125(r); morphology, 505(r)
- Chaffinch, see *Fringilla coelebs*
- Charadrius alexandrinus*, molt, 504(r)
- C. dubius*, molt, 504(r)
- C. hiaticula*, molt, 504(r)
- C. semipalmatus*, site fidelity, migration, 247-249
- C. vociferus*, food habits, 220-229; egg candler, 257-258
- Chen caerulescens, assortative mating, 278-279(r)
- Chickadee, Boreal, see *Parus hudsonicus*  
 Carolina, see *Parus carolinensis*
- Chicken, Domestic, see *Gallus domesticus*
- Chiffchaff, see *Phylloscopus collybita*
- Chlamychoaera jefferyi*, systematics, 508(r)
- Chlamydotis undulata*, reproductive behavior, 395-396(r)
- Chlidonias niger*, nest predation, 251-252
- Chondrohierax uncinatus*, distribution 286(r)
- Cinclus mexicanus*, population ecology, 515-516(r)
- Circus cyaneus*, migration, 143-150, Florida survey, 181-189; census, migration, 415-423
- Coccothraustes coccothraustes*, nesting ecology, 499(r)
- Colaptes auratus*, egg candler, 257-258; use of nest boxes, 482-483
- Colius castanotus*, torpor, 129(r); physiology, 503(r)
- C. striatus*, physiology, 503 (r)
- Columba livia*, urban species, 214-219



- Connecticut, Eastern Screech-Owl, habitat, 322-329
- conservation and environmental quality**
- Budgerigar, Florida, 214-219
- chlordane-related bird mortality, 129(r)
- Corvidae, urbanization, 275(r)
- Crane, Sandhill, migration and mortality, 402(r)
- ditching, effects on birds, 160-180
- Eagle, Bonelli, distribution, 501-502(r)
- Falcon, Peregrine, incubation, 274(r)
- habitat quality, bird, 402-403(r)
- Hawk, Broad-winged, habitat, 274(r)
- Red-shouldered, habitat, 274(r)
- Kestrel, American, heptachlor residues, 501(r)
- Kokako, influence of introduced mammals, 403(r)
- Mallard, mortality, 401-402(r)
- powerlines, bird protection from, 502(r)
- Skimmer, Black, Texas, 18-30
- Swan, Mute, distribution, 501(r)
- Woodcock, American, singing counts, 275(r)
- Coot, American, see *Fulica americana*
- European, see *Fulica atra*
- Cormorant, Red-faced, see *Phalacrocorax urile*
- Corncrake, see *Crex crex*
- Corvus brachyrhynchos*, as predator, 117-118; cooperative breeding, 349-356
- C. corax*, predation by, 394(r); social structure, 397-398(r)
- C. corone*, control of, 128-129(r); nest defense, 269(r); population dynamics, 275(r); ecology, 499-500(r)
- C. frugilegus*, food habits, foraging strategy, 134(r); population dynamics, 275(r)
- C. monedula*, control of, 128-129(r); population dynamics, 275(r)
- Cowbird, Brown-headed, see *Molothrus ater*
- Shiny, see *Molothrus bonariensis*
- Crane, Common, see *Grus grus*
- Sandhill, see *Grus canadensis*
- Crex crex*, fossil bones, 506(r); vocalization, 511-512(r)
- Crimea, birds of, 514(r)
- Crossbill, Red, see *Loxia curvirostra*
- Crow, American, see *Corvus brachyrhynchos*
- Hooded, see *Corvus corax*
- Cuculiformes, systematics, 405(r)
- Cygnus cygnus*, incubation, 123-124(r)
- C. olor*, distribution, 501(r)
- Dendroica coronata*, habitat manipulation, 401(r)
- D. discolor*, Puerto Rico, 376-378
- D. occidentalis*, hybrid, 509(r)
- D. tigrina*, Puerto Rico, 376-378
- D. townsendi*, hybrid, 509(r)
- Denmark, banding station, 136(r)
- Hooded Crow, ecology, 499-500(r)
- Diomedea amsterdamensis*, new species, Amsterdam Island, 508-509(r)
- D. epomophora*, systematics, 508-509(r)
- D. exulans*, incubation, 123(r); systematics, 508-509(r)
- Dipper, see *Cinclus mexicanus*
- Dolichonyx oryzivorus*, migration, 492(r)
- Dominican Republic, Shiny Cowbird, 104-107
- Dove, Eared, see *Zenaida auriculata*
- Mourning, see *Zenaida macroura*
- Rock, see *Columba livia*
- Dowitcher, Long-billed, see *Limnodromus scolopaceus*
- Dowitcher, Short-billed, see *Limnodromus griseus*
- Dryocopus pileatus*, cavity, 250; natural cavity, 490
- Duck, Black, see *Anas rubripes*
- Ring-necked, see *Aythya collaris*
- Wood, see *Aix sponsa*
- Dunlin, see *Calidris alpina*
- Eagle, Bald, see *Haliaeetus leucocephalus*
- Bonelli, see *Hieraetus fasciatus*
- Golden, see *Aquila chrysaetos*
- Eagle-Owl, see *Bubo bubo*
- East Germany, banding stations, 136(r)
- ecology**
- Amazonia, bird species richness, 498(r)
- Babbler, Grey-crowned, socio-ecology, 398(r)
- Bowerbird, MacGregor's, spacing, 270-271(r)
- Chickadee, Black-capped, habitat, 399-400(r)
- Crow, Hooded, ecology, 499-500(r)
- Eagle, Bald, communal roosts, 499(r)
- Flycatcher, Great Crested, habitat, 399-400(r)
- Pied, nesting habitat, 126(r)
- fringillids, European, 499(r)
- habitat selection by birds, 126(r)
- in tropics, 272(r)
- Harrier, Northern, habitat, 181-189
- Hawk, Sharp-shinned, habitat, 181-189
- Red-shouldered, habitat, 187-189
- Red-tailed, habitat, 187-189; reproductive success, 498-499(r)
- Hoopoe, population ecology, 400-401(r)
- invertebrate fauna in trees, 399(r)
- Kestrel, European, energetics, 271(r)
- Kingbird, Eastern, reproductive biology, 127(r)

- Nuthatch, White-breasted, habitat, 399-400(r)
- Owl, Long-eared, energetics, 398(r)
- passerines, seasonal habitat changes, 398(r)
- Penguin, King, nitrogen pathway, 399(r)
- Macaroni, nitrogen pathway, 399(r)
- predation, bird, 498(r)
- Rail, Light-footed Clapper, nesting habitat, 76-80
- riparian birds, Arizona, 97-103
- riparian habitats, 272(r)
- Robin, American, habitat, 399-400(r)
- seed dispersal by birds, 398(r)
- Sparrow, Chipping, habitat, 399-400(r)
- Tern, Common, biology, 424-434
- Towhee, Rufous-sided, habitat, 399-400(r)
- Vireo, Red-eyed, habitat, 399-400(r)
- Warbler, Black-and-white, habitat, 399-400(r)
- Wood-Pewee, Eastern, habitat, 399-400(r)
- Woodcock, American, bioenergetics, 272-273(r)
- Woodpecker, Acorn, territoriality, 271(r)
- Downy, foraging, 271-272(r), 398-399(r); habitat, 399-400(r)
- Gila, foraging, 127(r)
- Hairy, habitat, 399-400(r)
- woodpeckers, temperate and tropical, 127-128(r)
- Egretta caerulea*, food habits, 407-408(r)
- Eider, Common, see *Somateria mollissima*
- Emberiza aureola*, molt, 504(r)
- E. citrinella*, molt, 504(r)
- E. hortulana*, molt, 504(r)
- E. rustica*, molt, 504(r)
- E. schoeniclus*, molt, 504(r)
- Empidonax minimus*, migration, 116-117
- Erethacus megarhynchos*, song, 136(r)
- E. rubecula*, orientation behavior, 120 (r)
- Eremophila alpestris*, altruism, 489-490
- Eudryptes chrysolophus*, nitrogen cycle, 399(r)
- Euristomus orientalis*, morphology, 504(r)
- Eurypyga helias*, systematics, 131(r)
- evolution and genetics**
- Anatidae, genetics, 406(r)
- Andes, birds of, 509-510(r)
- avian genetics, diseases, 131-132(r)
- chromosomes, in birds, 509(r)
- DNA-DNA hybridization, 507-508(r)
- evolution in birds, anatomy, karyotypic, 132-133(r)
- Finch, Darwin's, 407(r)
- genetic structure, systematics in birds, 509(r)
- Goose, Snow, assortative mating, 278-279(r)
- Gull, California, morphology, genetics, 406(r)
- Owl, Short-eared, winter foraging behavior, 279(r)
- Sparrow, House, genetic structure, 278(r)
- Fox, temporal variation, 407(r)
- speciation in birds, 132-133(r)
- Starling, European, genetic variation, 406-407(r)
- treecreeper, food of nestlings, 279(r)
- Warbler, Hermit, hybridization, 509(r)
- Townsend's, hybridization, 509(r)
- Wryneck, nest structure, 279(r)
- exclosure, bird, 114-116
- Falco columbarius*, food, 510(r)
- F. mexicanus*, dispersal and migration, 357-368
- F. peregrinus*, diet, 133(r); egg candler, 257-258; artificial incubation, 274(r); predation by, 394(r); fledgling behavior, 414(r)
- F. sparverius*, nest cavity, 250; egg candler, 257-258; physiology, 276(r); attacking humans, 386-387; territorial behavior, 387-388; migration, census, 415-423; heptachlor residues, 501(r)
- F. subbuteo*, joint hunting, 133(r)
- F. tinnunculus*, hunting behavior, 271(r); fossil bones, 506(r)
- Falcon, Peregrine, see *Falco peregrinus*
- Prairie, see *Falco mexicanus*
- Ficedula hypoleuca*, reproduction, 126(r); song, 136(r); behavior, 270(r), 497-498(r); migration behavior, 265(r); polygyny, 397(r); geomagnetic field, 492(r); egg laying, 494(r)
- field techniques and equipment
- candler, portable, 257-258
- decoys, Least Tern, 241-243
- Dove, Mourning, revised sex/age key, 112-114
- Eagle, Bald, sex/age characteristics, 467-481
- exclosure for birds, 114-116
- Grosbeak, Rose-breasted, plumage, 486-487
- hawk migration census, 415-423
- invertebrate trunk trap, 399(r)
- pump, stomach, penguins and seabirds, 109-112
- radar, use of to estimate bird numbers, 369-375
- Figbird, see *Sphecothebes viridis*
- Finch, Purple, see *Carpodacus purpureus*
- Darwin's, see *Geospiza conirostris*

- Galapagos, genetics, 131–132(r)  
 House, see *Carpodacus mexicanus*
- Finland, banding stations, 136(r)  
 Great Black-backed Gull, 493(r)  
 Herring Gull, 266(r), 493(r)  
 Lesser Black-backed Gull, 266(r), 493(r)  
 Pied Flycatcher, 126(r)  
 Redstart, 126(r)  
 treecreeper, nesting food, 279(r)
- Flicker, Northern, see *Colaptes auratus*
- Florida, American Crow, breeding, 349–356  
 bird migration, 196–203  
 Brown Pelican, 121(r)  
 Budgerigar, 214–219  
 Great White Heron, 393–394(r)  
 Northern Mockingbird, 252–253  
 raptor survey, 181–189  
 Sandhill Crane, 123(r)
- Flycatcher, Great Crested, see *Myriarchus crinitus*  
 Least, see *Empidonax minimus*  
 Pied, see *Ficedula hypoleuca*
- food and feeding**  
 Bellbird, New Zealand, 408(r)  
 Crane, Common, 510(r)  
 Crow, American, preys on sandpiper, 117–118  
 Eagle, Bald, preys on storm-petrel, 394(r)  
 Falcon, Peregrine, diet, 133(r)  
 preys on storm-petrel, 394(r)  
 Gull, Black-headed, feeding areas, 510–511(r)  
 Heron, Green-backed, late summer food, 407–408(r)  
 Little Blue, late summer food, 407–408(r)  
 Hobbies, joint hunting, 133(r)  
 Kittiwake, Black-footed, diet, 121(r)  
 Mallard, feeding ecology, 510(r)  
 Merlin, breeding, 510(r)  
 Night-Heron, Yellow-crowned, summer food, 407–408(r)  
 Rook, foraging strategy, 134(r)  
 insect consumption, 134(r)  
 shorebirds, migrant, 220–229  
 Silvereye, New Zealand, 408(r)  
 Tit, Marsh, storing food, 133–134(r)  
 Tui, New Zealand, 408(r)  
 waterfowl, benthos, 408(r)
- Fowl, Guinea, see *Numida meleagris*
- France, banding stations, 136(r)  
 Bonelli Eagle, distribution, 501–502(r)  
*Fratercula arctica*, book review, 409(r)  
*Fringilla coelebs*, nesting ecology, 499(r)  
*F. montifringilla*, banding, 491(r); migratory behavior, 120(r)  
*Fulica americana*, in parks, 89–96  
*F. atra*, food, eggs, 394(r)  
 Fulmar, Northern, see *Fulmarus glacialis*  
*Fulmarus glacialis*, nesting sites, 122(r)  
 Gadwall, see *Anas strepera*  
 Galapagos Islands, owls, 131(r)  
*Gallus domesticus*, egg candler, 257–258  
*Gallus gallus*, fossil bones, 506(r)  
 Gannet, Northern, see *Sula bassanus*  
*Gavia immer*, call, 258–259  
*Gelochelidon nilotica*, 409(r)  
*Geospiza conirostris*, evolution 407(r)  
*Glareola mormanii*, nesting, 395(r)  
 Goldeneye, Barrow's, see *Bucephala islandica*  
 Common, see *Bucephala clangula*  
 Goldfinch, see *Carduelis carduelis*  
 American, see *Carduelis tristis*  
 Goose, Canada, see *Branta canadensis*  
 Snow, see *Chen caerulescens*  
 Goshawk, see *Accipiter gentilis*  
 Grackle, Common, see *Quiscalus quiscula*  
 Great Britain, banding stations, 136(r)  
 Marsh Tit, 133–134(r)  
 Greenfinch, see *Carduelis chloris*  
 Grosbeak, Rose-breasted, see *Pheucticus ludovicianus*  
 grouse, of the world, 410–411(r)  
 Ruffed, see *Bonasa umbellus*  
*Grus canadensis*, productivity, 123(r); migration, mortality, 402 (r)  
*Grus grus*, fossil bones, 506(r); food, migration, 510(r)  
 Guam, birds of, 410(r)  
 Guatemala, woodpeckers, foraging ecology, 127–128(r)  
 Guillemot, see *Uria aalge*  
 Guinea-fowl, see *Numida meleagris*  
 Gull, California, see *Larus californicus*  
 Glaucous-winged, see *Larus glaucescens*  
 Great Black-backed, see *Larus marinus*  
 Great Black-headed, see *Larus ichthyaetus*  
 Herring, see *Larus argentatus*  
 Lesser Black-backed, see *Larus fuscus*  
 Ring-billed, see *Larus delawarensis*  
 Ross's, see *Rhodostethia rosea*  
 Silver, see *Larus novaehollandiae*  
*Haliaeetus leucocephalus*, predation by, 394(r); nesting morphology, 467–481; communal roosts, 499(r)  
*Haematopus moquini*, nest-site selection, 267(r)  
 Harrier, Northern, see *Circus cyaneus*  
 Hawfinch, see *Coccothraustes coccothraustes*  
 Hawk, Broad-winged, see *Buteo platypterus*  
 Cooper's, see *Accipiter cooperii*  
 Red-shouldered, see *Buteo lineatus*

- Red-tailed, see *Buteo jamaicensis*  
 Rough-legged, see *Buteo lagopus*  
 Sharp-shinned, see *Accipiter striatus*  
 Heron, Green-backed, see *Butorides striatus*  
 Great Blue, see *Ardea herodias*  
 Great White, see *Ardea herodias*  
 Little Blue, see *Egretta caerulea*  
*Hieraaetus fasciatus*, distribution, 501–502(r)  
*Himantopus novaehollandiae*, distribution, 505(r)  
*Hirundo rustica*, habitat selection, 121–122(r)  
 Hobby, see *Falco subbuteo*  
 Hoopoe, see *Upupa epops*  
 Hudson Bay, Snow Geese, 278–279(r)  
 Idaho, Golden Eagle, migration, 357–368  
 Osprey, migration, 483–485  
 Prairie Falcon, migration, 357–368  
 Red-tailed Hawk, migration, 357–368  
 Illinois, Horned Lark, altruism, 489–490  
 Iowa, birds of, 513–514(r)  
 Vesper Sparrow, 266–267(r)  
 Ireland, banding stations, 136(r)  
 Jackdaw, see *Corvus monedula*  
 Jaeger, Parasitic, see *Stercorarius parasiticus*  
 Jay, Scrub, see *Aphelocoma coerulescens*  
 Junco, Dark-eyed, see *Junco hyemalis*  
*Junco hyemalis*, in farm shelterbelts, 273(r);  
 habitat manipulation, 401(r); nesting, 494(r)  
 Junglefowl, Red, see *Gallus gallus*  
*Jynx torquilla*, nest, 279(r)  
 Kagu, New Caledonian, see *Rhynochetos jubatus*  
 Kansas, Eastern Kingbird, 127(r)  
 House Sparrow, dispersal, 444–456  
 Sora, 38–47  
 Virginia Rail, 38–47  
 Kestrel, American, see *Falco sparverius*  
 Eurasian, see *Falco tinnunculus*  
 Killdeer, see *Charadrius vociferus*  
 Kingbird, Eastern, see *Tyrannus tyrannus*  
 Kite, Hook-billed, see *Chondrohierax uncinata*  
 Kittiwake, Black-legged, see *Rissa tridactyla*  
 Red-legged, see *Rissa brevirostris*  
 Kiwi, North Island Brown, see *Apteryx australis*  
 Kokako, North Island, see *Callaeas cinerea*  
 Korea, avifauna, 504(r)  
*Lagopus lagopus*, nest parasitism, 250–251;  
 fossil bones, 506(r)  
 Lanidae, song, 135(r)  
 Lark, Horned, see *Eremophila alpestris*  
*Larus argentatus*, 409(r); band recoveries, 190–195; population trends, 266(r);  
 distribution, 493(r)  
*L. californicus*, reproductive success, 122–  
 123(r); reproduction, 393(r); genetics, 406(r)  
*L. delawarensis*, clutch size, 81–88; capture  
 and marking, 128(r); breeding success, 151–159  
*L. fuscus*, population trends, 266(r); distri-  
 bution, 493(r)  
*L. glaucescens*, inland breeding, 380–382  
*L. ichihaetus*, mortality, 124(r); chick mor-  
 tality, 268–269(r)  
*L. marinus*, 409(r); distribution, 493(r)  
*L. novaehollandiae*, color marking, 287–308  
*L. ridibundus*, 409(r); feeding areas, 510–  
 515(r)  
*Limnodromus griseus*, ecology, 498(r)  
*L. scolopaceus*, food habits, 220–229; ecol-  
 ogy, feeding, 498(r)  
 Linnet, see *Acanthis cannabina*  
*Lonchura malabarica*, nest parasitism, 123(r)  
 Loon, Common, see *Gavia immer*  
*Lophodytes cucullatus*, in parks, 89–96  
 Louisiana, Green-backed Heron, food, 407–  
 408(r)  
 Little Blue Heron, food, 407–408(r)  
 Yellow-crowned Night Heron, food, 407–  
 408(r)  
*Loxia curvirostra*, physiology, 404(r)  
*Luscinia megarhynchos*, territoriality, 125(r)  
 Maine, Common Loon, 258–259  
 Mallard, see *Anas platyrhynchos*  
 Manitoba, diving duck distribution, 405(r)  
 Sandhill Crane, migration, 402(r)  
 Willow Ptarmigan, 250–251  
 Maryland, Least Tern, 108–109  
 Red-shouldered Hawk, 129(r)  
 woodpeckers, foraging ecology, 127–128  
 Massachusetts, habitat alteration, 160–180  
 Semipalmated Plover, 247–249  
 waterfowl in parks, 89–96  
*Melanerpes carolinus*, snag use, 274(r)  
*M. erythrocephalus*, snag use, 274(r)  
*M. formicivorus*, behavior, 250; reproduc-  
 tion, 269(r); territories, 271(r)  
*M. uropygialis*, foraging, 127(r)  
*Melanitta nigra*, molt, 276(r)  
*Melospiza undulatus*, feral population, 214–219  
*Melospiza melodia*, egg candler, 257–258;  
 habitat use, 330–335; nesting, 494(r);  
 song, 511(r)  
 Merganser, Common, see *Mergus merganser*  
 Hooded, see *Lophodytes cucullatus*  
 Red-breasted, see *Mergus serrator*  
*Mergus merganser*, in parks, 89–96; distri-  
 bution, 405(r)  
*M. serrator*, in parks, 89–96

- Merlin, see *Falco columbarius*
- Michigan, American Crow, 117–118  
Spotted Sandpiper, 117–118
- migration, orientation, and homing**
- Blackbird, European, partial migration, 391–392(r)
  - Blackcap, orientation behavior, 120(r)
  - Brambling, migratory restlessness, 120(r)
  - cages, funnel and radial perch, 265(r)
  - Canvasback, Mississippi River, 265–266(r)
  - Crane, Sandhill, fall migration, 402(r)
  - Eagle, Golden, dispersal and migration, 357–368
  - Falcon, Prairie, dispersal and migration, 357–368
  - Florida, migration in, 196–203
  - Flycatcher, Least, band recovery, 116–117
  - geomagnetic field, 265(r)  
migration, 492(r)
  - Gulls, band recoveries, 493(r)
  - Harrier, Northern, 143–150, 415–423
  - Hawk, Broad-winged, 415–423
    - Cooper's, 415–423
    - Red-shouldered, 415–423
    - Red-tailed, dispersal and migration, 357–368(r), 415–423
    - Sharp-shinned, 415–423
  - Kestrel, American, 415–423  
night migration, 120(r)
  - Osprey, migration, 483–485
  - Ovenbird, philopatry, 376–378
  - Parula, Northern, philopatry, 376–378
  - pigeon, homing, 265(r)
  - Plover, Semipalmated, migration, 247–249
  - radar for bird estimates, 369–375
  - Redstart, American, philopatry, 376–378
    - Black, migratory behavior, 392(r), homing, 493(r)
  - Robin, European, orientation behavior, 120(r)
  - Screech-Owl, Eastern, home range, 322–329
  - shorebirds, Texas, 220–229
  - Sparrow, House, movements, 493(r)
    - Tree, movements, 493(r)
    - White-crowned, movement of juveniles, 392(r)
  - sun orientation, 119(r)
  - Tern, Roseate, winter quarters, 1–17
  - Warbler, Black-and-white, philopatry, 376–378
    - Cape May, philopatry, 376–378
    - Hooded, philopatry, 376–378
    - Prairie, philopatry, 376–378
    - Prothonotary, philopatry, 376–378
    - Willow, weight gain, 265(r)
    - Wilson's, philopatry, 376–378
  - warblers, wood, migration, 493(r)
  - Waterthrush, Northern, philopatry, 376–378
- Mimus polyglottos*, behavior, 252–253
- Minnesota, American Robin, 273(r)
- Common Grackle, 273(r)
  - Dark-eyed Junco, 273(r)
  - European Starling, 273(r)
  - House Sparrow, 273(r)
  - Mourning Dove, 273(r)
  - woodpeckers, foraging ecology, 127–128(r)
- Missouri, American Kestrel, 250
- Pileated Woodpecker, 250
  - Red-headed Woodpecker, 250
- Mniotilta varia*, Puerto Rico, 376–378
- Mockingbird, Northern, see *Mimus polyglottos*
- Molothrus ater*, radio-tracking, 396–397(r);  
song, 408–409(r); nest parasite, 494(r)
- M. bonariensis*, range expansion, 104–107
- morphology and anatomy**
- avian genetics, 131–132(r)
  - duck, domestic, eggshell porosity, 404(r)
  - Dunlin, weight variation, 130(r)  
winter sexing, 343–348
  - Eagle, Bald, sex/age characteristics, 467–481
    - Golden, age/sex variation, 54–66
  - fowl, domestic, eggshell porosity, 404(r)
  - Goldeneye, Barrow's, wing morphology, 276(r)  
Common, wing morphology, 276(r)
  - Owl, Saw-whet, sex/age variation, 204–213
  - Roller, Broad-billed, morphology, 504(r)
  - Sanderling, winter sexing, 336–342
  - seed dispersers, avian, 503–504(r)
  - Sparrow, House, 404–405  
Rufous-collared, 404(r)
  - Tit, Long-tailed, eyelid color, 503(r)
  - turkey, domestic, eggshell porosity, 404(r)
  - Warbler, Cetti's, sexual dimorphism, 505(r)
- Mousebird, see *Colius, Urocolius*
- Mousebird, Red-backed, see *Colius castanotus*
- Munia, White-throated, see *Lonchura malabarica*
- Murre, Common, see *Uria aalge*
- Thick-billed, see *Uria lomvia*
- Myriarchus crinitus*, snag use, 274(r)
- Nebraska, Mallard, food, 510(r)
- nesting and reproduction**
- Albatross, Wandering, incubation, 123(r)

- Blackbird, Red-winged, nestlings, 122(r); sex ratios, 267(r), 268(r); decline, 435-443
- Bluebird, Western, 259-261
- Booby, Red-footed, colony, 495(r)
- Bustard, Houbara, behavior, 395-396(r)
- Coot, European, food supply and egg mass, 394(r)
- Crow, American, cooperative breeding, 349-356
- Crane, Sandhill, productivity, 123(r)
- Dove, Eared, colonial breeding, 393(r)
- egg recognition in birds, 267(r)
- Eider, Common, reproductive success, 121(r)
- Finch, Purple, breeding, 391(r)
- Flycatcher, Pied, eggs, 494(r)
- Gadwall, concentrated nesting, 268(r); nest site selection, 495(r)
- Gull, California, reproductive success, 122-123(r), 393(r)
- Glaucous-winged, inland breeding, 380-382
- Great Black-headed, mortality, 124(r); chick mortality, 268-269(r)
- Ring-billed, eggs, 81-88; breeding, 151-159
- Ross's, colonial nesting, 496(r)
- Heron, Great White, food, 393-394(r)
- Jay, Scrub, nestling growth, 48-53
- Kestrel, American, attacks human, 386-387; territorial disputes, 387-388
- Kittiwake, Black-legged, breeding, 121(r)
- Mallard, concentrated nesting, 268(r)
- Munia, White-throated, nest parasitism, 123(r)
- Noddy, Blue-gray, breeding biology, 309-321
- Oystercatcher, African Black, nesting, 267(r)
- Pratincole, Black-winged, reproduction, 395(r)
- Ptarmigan, Willow, nest parasitism, 250-251
- Rail, Clapper, dome rebuilding, 386
- Light-footed Clapper, habitat, 67-80
- seabirds, St. Georges Island, 122(r)
- Shearwater, Buller's, breeding biology, 394(r)
- Skimmer, Black, Texas, 18-30
- Sparrow, Song, 494(r)
- Vesper, breeding ecology, 266-267(r)
- Storm-petrel, Fork-tailed, colony predation, 394(r)
- Leach's, colony predation, 394(r)
- survivorship in birds, 267-268(r)
- Swallow, Barn, habitat, 121-122(r)
- Swan, Whooper, incubation, 123-124(r)
- Tern, Black, nest predation, 251-252
- Common, nest site selection, 457-466
- Least, nest disturbances, 108-109
- Sandwich, Virgin Islands, 243-246
- Tit, Great, nestling growth, 495-496
- Willow, nestling growth, 495-496
- Woodpecker, Pileated, natural cavity, 490
- Netherlands, banding stations, 136(r)
- Common Eider, 121(r)
- seabirds, 405(r)
- New Brunswick, Boreal Chickadee, molt, 487-489
- New Jersey, Clapper Rail, nesting, 386-387
- New Mexico, European Starling, 254-257
- New York, Boreal Chickadee, 31-37
- Eastern Kingbird, 127(r)
- Purple Finch, 391(r)
- Roseate Tern, 1-17
- New Zealand, Black Stilt, 505(r)
- Buller's Shearwater, 394(r)
- New Zealand Pipit, 505(r)
- Night-Heron, Yellow-crowned, see *Nycticorax violaceus*
- Nightingale, see *Luscinia megarhynchos*
- Nightjar, European, see *Caprimulgus europaeus*
- Noddy, Blue-gray, see *Procelsterna cerulea*
- North Dakota, Gadwall, 268(r)
- Mallard, 268(r)
- Red-winged Blackbird, decline, 435-443
- Sandhill Crane, migration, 402(r)
- Numida meleagris*, vocalization, 135(r), 279-280(r)
- Nuthatch, White-breasted, see *Sitta carolinensis*
- Nycticorax violaceus*, food habits, 407-408(r)
- Oceanodroma furcata*, reproduction, 394(r)
- O. leucorhoa*, reproduction, 394(r)
- Oenanthe isabellina*, territoriality, 497(r)
- O. oenanthe*, territoriality, 497(r)
- O. pleschanka*, territoriality, 497(r)
- Ohio, Short-eared Owl, 279(r)
- Ontario, avian breeding notes, 277(r)
- Broad-winged Hawk, 274(r)
- Cooper's Hawk, banding, 391(r)
- Least Flycatcher, 116-117
- Red-shouldered Hawk, 274(r)
- Saw-whet Owl, 204-213
- Oporornis tolmiei*, habitat use, 330-335
- Oregon, American Kestrel, contaminants, 501(r)
- Bald Eagle, roosts, 499(r)
- Glaucous-winged Gull, breeding, 380-382
- Great Horned Owl, 129(r)
- MacGillivray's Warbler, habitat, 330-335

- Red-tailed Hawk, reproduction, 498–499(r)
- Song Sparrow, habitat, 330–335
- Violet-green Swallow, 259–261
- Western Bluebird, 259–261
- Wilson's Warbler, habitat, 330–335
- Osprey, see *Pandion haliaetus*
- Otus asio*, habitat, home range, 322–329; nest boxes, 482–483; systematics, 506(r)
- Ovenbird, see *Seiurus aurocapillus*
- Owl, Barn, see *Tyto alba*
- Great Horned, see *Bubo virginianus*
- Long-eared, see *Asio otus*
- Saw-whet, see *Aegolius acadicus*
- Short-eared, see *Asio flammeus*
- Tengmalm's, see *Aegolius funereus*
- Ural, see *Strix uralensis*
- owls, of Europe, 412(r)
- Oystercatcher, African Black, see *Haematopus moquini*
- Pandion haliaetus*, molt, 130(r); migration, census, 415–423; migration, 483–485
- parasites and disease**
- Finch, House, hippoboscids flies, 502–503(r)
- hippoboscids flies, California, 230–240
- Starling, European, acanthocephalan parasite, 275–276(r)
- Partridge, Gray, see *Perdix perdix*
- Parula americana*, Puerto Rico, 376–378
- Parula*, Northern, see *Parula americana*
- Parus carolinensis*, 274(r)
- P. cristatus*, physiology, 404(r); territorial behavior, migration, 497(r)
- P. hudsonicus*, population fluctuations, 31–37; molt, 487–489
- P. major*, parental feeding, 396(r); nestling growth, 495–496(r)
- P. montanus*, nestling growth, 495–496(r)
- P. palustris*, stored food, 133–134(r)
- Passer domesticus*, urban species, 214–219; in farm shelterbelts, 273(r); genetic structure, 278(r); kills bluebirds, 378–380; morphology, 404–405(r); natal dispersal, 444–456; migration, 493(r)
- P. montanus*, physiology, 404(r); migration, 493(r)
- Passerella iliaca*, evolution, systematics, 407(r)
- Pelican, Brown, see *Pelecanus occidentalis*
- Pelecaniformes, systematics, 405(r)
- Pelecanus occidentalis*, age-classes, 121(r)
- Penguin, King, see *Aptenodytes patagonica*
- Macaroni, see *Eudyptes chrysolophus*
- Pennsylvania, American Kestrel, territory, 387–388
- House Finch, parasites, 502–503(r)
- Rose-breasted Grosbeak, 486–487
- Perdix perdix*, population dynamics, 494(r)
- Phalacrocorax urile*, nesting sites, 122(r)
- Phalarope, Wilson's, see *Phalaropus tricolor*
- physiology**
- Kestrel, American, visual acuity, 276(r)
- Mallard, osmoregulation, 403(r)
- mousebird, physiology, 503(r)
- Red-backed, torpor, 129(r)
- resident and migratory birds, annual periodicity, 403–404(r)
- small passerines, metabolic adjustment, 403(r)
- Swallow, Bank, muscle development, 129(r)
- Phalaropus tricolor*, food habits, 220–229
- Pheasant, Great Argus, see *Argusianus argus*
- Pheucticus ludovicianus*, plumage coloration, 486–487
- Phoenicurus ochruros*, migratory behavior, 392(r); homing, 493(r)
- P. phoenicurus*, reproduction, 126(r)
- Phylloscopus collybita*, vocalization, 134(r), 136(r); territoriality, 497(r)
- P. trochilus*, migration, 265(r); territoriality, 497(r)
- Picoides borealis*, symposium, 518(r)
- P. pubescens*, foraging, 271–272(r); artificial cavities, 273(r); snag use, 274(r); behavior, 398–399(r)
- Pintail, Northern, see *Anas acuta*
- Pipilo erythrophthalmus*, systematics, 506(r)
- Pipit, New Zealand, see *Anthus novaeseelandiae*
- Piranga ludoviciana*, habitat manipulation, 401(r)
- Pityriasis gymnocephala*, systematics, 508(r)
- Ploceidae, in Africa, 136–137(r)
- Plover, Little Ringed, see *Charadrius dubius*
- Ringed, see *Charadrius hiaticula*
- Semipalmated, see *Charadrius semipalmatus*
- Snowy, see *Charadrius alexandrinus*
- plumages and molts**
- Charadrius*, molt, 504(r)
- Chickadee, Boreal, molt, 487–489
- Dunlin, post-nuptial molt, 130(r)
- Emberiza*, molt, 504(r)
- Grosbeak, Rose-breasted, plumage, 486–487
- Osprey, molt, 130(r)
- Redshank, primary molt, 130(r)
- Poocetes gramineus*, breeding behavior, 266–267(r)
- Poland, Mute Swan, distribution, 501(r)
- paleontology, 506(r)

- Pomatostomus temporalis*, socio-ecology, 398(r)  
**population dynamics**  
 Budgerigar, Florida, 214-219  
 Chickadee, Boreal, irruptions, 31-37  
 Cowbird, Shiny, range expansion, 104-107  
 Gannet, seasonal variation in numbers, 120-121(r)  
 Guillemot, colony, 266(r)  
 Gull, Herring, population trends, 266(r)  
 Lesser Black-backed, population trends, 266(r)  
 Harrier, Northern, abundance, 181-189  
 Hawk, Sharp-shinned, abundance, 181-189  
 Red-shouldered, abundance, 181-189  
 Red-tailed, abundance, 181-189  
 Ovenbird, Puerto Rico, 376-378  
 Partridge, Gray, mortality estimates, 494(r)  
 Parula, Northern, Puerto Rico, 376-378  
 passerine densities in shrubsteppe vegetation, 261-264  
 Pelican, Brown, age-classes, 121(r)  
 California, 353-373  
 Rail, Virginia, Kansas, 38-47  
 Redstart, American, Puerto Rico, 376-378  
 Sora, Kansas, 38-47  
 Sparrow, White-crowned, population biology, 392(r)  
 Warbler, Black-and-white, Puerto Rico, 376-378  
 Cape May, Puerto Rico, 376-378  
 Hooded, Puerto Rico, 376-378  
 Prairie, Puerto Rico, 376-378  
 Prothonotary, Puerto Rico, 376-378  
 Wilson's, Puerto Rico, 376-378  
 Waterthrush, Northern, Puerto Rico, 376-378  
*Porphyrio porphyrio*, behavior, 496(r)  
*Porzana carolina*, distribution, habitat, status in Kansas, 38-47  
 Pratincole, Black-winged, see *Glareola nordmannii*  
*Procelsterna cerulea*, breeding biology, 309-321  
*Prosthemadera novaeseelandiae*, food, 408(r)  
*Protonotaria citrea*, Puerto Rico, 376-378  
*Prunella*, systematics, 131(r)  
 Ptarmigan, Willow, see *Lagopus lagopus*  
*Pterodroma alba*, Henderson Island, 277(r)  
*P. arminjoniana*, Henderson Island, 277(r)  
*P. neglecta*, Henderson Island, 277(r)  
 Puerto Rico, birds of, 517-518(r)  
 Puffin, Atlantic, see *Fratercula arctica*  
*Puffinus bulleri*, biology, 394(r)  
 Pukeko, see *Porphyrio porphyrio*  
 pump, stomach, 109-112  
*Quiscalus quiscula*, in farm shelterbelts, 273(r); use of nest boxes, 482-483  
 Rail, Light-footed Clapper, see *Rallus longirostris*  
 Virginia, see *Rallus limicola*  
*Rallus limicola*, distribution, habitat, status in Kansas, 38-47  
*R. longirostris*, nesting habitat, 67-80; nesting, 386-387  
 Raven, Common, see *Corvus corax*  
 Razorbill, see *Alca torda*  
*Recurvirostra americana*, food habits, 220-229, 498(r)  
 Redhead, see *Aythya americana*  
 Redshank, see *Tringa totanus*  
 Redstart, see *Phoenicurus phoenicurus*  
 American, see *Setophaga ruticilla*  
 Black, see *Phoenicurus ochruros*  
*Rhodostethia rosea*, colonial nesting, 496(r)  
*Rhynchotus jubbatus*, systematics, 131(r)  
*Riparia riparia*, muscle development, 129(r)  
*Rissa brevirostris*, nesting sites, 122(r)  
*R. tridactyla*, 409(r); diet and feeding, 121(r); nesting sites, 122(r)  
 Robin, American, see *Turdus migratorius*  
 European, see *Erithacus rubecula*  
 Roller, Broad-billed, see *Euristomus orientalis*  
 Rook, see *Corvus frugilegus*  
*Rynchops niger*, reproductive success, 18-30  
 Sanderling, see *Calidris alba*  
 Sandpiper, Baird's, see *Calidris bairdii*  
 Least, see *Calidris minutilla*  
 Spotted, see *Actitis macularia*  
 Stilt, see *Calidris himantopus*  
 Western, see *Calidris mauri*  
 Saskatchewan, Bald Eagle, nestling morphology, 467-481; Common Goldeneye, survivorship, 382-383  
 Scaup, Greater, see *Aythya marila*  
 Lesser, see *Aythya affinis*  
*Scolopax minor*, behavior, 272-273(r); call-accounts, habitat, 275(r)  
 Scoter, Black, see *Melanitta nigra*  
 Scotland, Northern Gannet, 120-121(r)  
 Peregrine Falcon, 133(r)  
 Screech-Owl, see *Otus asio*  
*Seiurus aurocapillus*, Puerto Rico, 376-378; habitat, 500(r)  
*Seiurus noveboracensis*, Puerto Rico, 376-378  
 Serin, see *Serinus serinus*  
*Serinus serinus*, nesting ecology, 499(r)  
*Setophaga ruticilla*, Puerto Rico, 376-378  
 Shearwater, Buller's, see *Puffinus bulleri*  
 Shoveler, Northern, see *Anas clypeata*



- Sialia currucoides*, habitat manipulation, 401(r)
- S. mexicana*, interspecific cooperation, 259–261
- S. sialis*, competition for cavities, 378–380
- Silvereye, see *Zosterops lateralis*
- Sitta carolinensis*, habitat, 500(r)
- Skimmer, Black, see *Rynchops niger*
- Skua, Arctic, see *Stercorarius parasiticus*
- Great, see *Catharacta skua*
- Somateria mollissima*, reproduction, 121(r), predation, 128(r)
- songs and vocalizations**
- Cacique, Yellow-rumped, song, 135(r)
- Chiffchaff, electrocardiogram playback, 134(r)
- Corncrake, vocalization, 511–512(r)
- Cowbird, Brown-headed, song, 408–409(r)
- duetting, song splitting, 135(r)
- Fowl, Guinea, communication, 135(r), 279–280(r)
- Sparrow, Song, repertoire size, 511(r)
- White-crowned, response to males, 408(r)
- Turdus merula*, song playback, 135(r)
- ventriloquism, 135–136(r)
- Sora, see *Porzana carolina*
- South Africa, King Penguin, 399(r)
- Macaroni Penguin, 399(r)
- South Dakota, Gray Partridge, census, 494(r); population changes after burning, 401(r); Red-winged Blackbird, decline, 435–443
- Sparrow, Chipping, see *Spizella passerina*
- Fox, see *Passerella iliaca*
- House, see *Passer domesticus*
- Rufous-collared, see *Zonotrichia capensis*
- Seaside, see *Ammodramus maritimus*
- Song, see *Melospiza melodia*
- Tree, see *Passer montanus*
- Vesper, see *Poocetes gramineus*
- White-crowned, see *Zonotrichia leucophrys*
- Specotheres viridis*, hybrid phenotypes, 277(r)
- Spizella passerina*, habitat manipulation, 401(r)
- Starling, European, see *Sturnus vulgaris*
- Stercorarius parasiticus*, behavior, 497(r)
- S. parasiticus*, 409(r)
- Sterna antillarum*, colony site, 108–109; decoys, 241–243
- S. dougallii*, migration, winter quarters, 1–17
- S. hirundo*, wintering biology, 424–434; nest site selection 457–466
- S. paradisaea*, incubation behavior, 124–125(r); 409(r)
- S. sandvicensis*, nesting, Virgin Islands, 243–246
- Stilt, Black, see *Himantopus novaehollandiae*
- Storm-petrel, Fork-tailed, see *Oceanodroma furcata*
- Leach's, see *Oceanodroma leucorhoa*
- Strix uralensis*, vocalization, 136 (r)
- Sturnus vulgaris*, behavior of young, 125(r), urban species, 214–219; nesting in New Mexico, 254–257; egg candler, 257–258; in farm shelterbelts, 273(r); parasites, 275–276(r); genetics, 406–407(r); use of nest boxes, 482–483
- Sula bassanus*, numbers and condition, 120–121(r)
- S. sula*, Fiji, 495(r)
- Sunbittern, see *Eurypyga helias*
- Surinam, *Cacicus cela*, 135(r)
- Swallow, Bank, see *Riparia riparia*
- Barn, see *Hirundo rustica*
- Tree, see *Tachycineta bicolor*
- Violet-green, see *Tachycineta thalassina*
- Swan, Mute, see *Cygnus olor*
- Whooper, see *Cygnus cygnus*
- Sweden, banding stations, 136(r)
- Brambling, 120(r)
- Switzerland, banding stations, 136(r)
- Brambling, 491(r)
- Sylvia atricapilla*, orientation behavior, 120(r)
- S. conspicillata*, physiology, 404(r)
- S. curruca*, orientation behavior, 120(r)
- systematics and paleontology**
- Accentor, relationships, 131(r)
- albatross, new species, 508–509(r)
- Anatidae, evolutionary, genetics, 406(r)
- Anseriformes, electrophoretic evaluation, 405–406(r)
- avian speciation, patterns, 278(r)
- Bristlehead, Bornean, 508(r)
- Cuculiformes, intraordinal relationships, 405(r)
- DNA-DNA hybridization, 507–508(r)
- Gruiformes, phylogenetic relationships, 131(r)
- Pelecaniformes, intraordinal relationships, 405(r)
- Poland, fossil birds, 506(r)
- species concepts, speciation, 506–507(r)
- Thrush, Black-collared, 508(r)
- thrushes, New Zealand, 406(r)
- Tachycineta bicolor*, egg candler, 257–258
- T. thalassina*, interspecific cooperation, 259–261
- Tanager, Western, see *Piranga ludoviciana*
- Teal, Green-winged, see *Anas crecca*
- Tennessee, Common Grackle, nest box use, 482–483

- Tern, Arctic, see *Sterna paradisaea*  
 Black, see *Chlidonias niger*  
 Common, see *Sterna hirundo*  
 Gull-billed, see *Gelochelidon nilotica*  
 Least, see *Sterna antillarum*  
 Roseate, see *Sterna dougallii*  
 Sandwich, see *Sterna sandvicensis*  
*Tetrao tetrix*, fossil bones, 506(r)  
 Tetraonidae, reproductive biology, 518(r)  
 Texas, Black Skimmer, 18–30  
 shorebird food habits, 220–229  
 snag use by cavity nesters, 274(r)  
 Thrush, Black-collared, see *Chlamydochaera jefferyi*  
 Tit, Crested, see *Parus cristatus*  
 Great, see *Parus major*  
 Long-tailed, see *Aegithalos caudatus*  
 Marsh, see *Parus palustris*  
 Willow, see *Parus montanus*  
 Towhee, Rufous-sided, see *Pipilo erythrophthalmus*  
*Tringa flavipes*, food habits, 220–229  
*T. totanus*, molt, 130(r)  
 Trinidad, Common Tern, wintering biology, 424–434  
 Tui, see *Prosthemadera novaeseelandiae*  
*Turdus*, fossil bones, 506(r)  
*T. merula*, vocalization, 135(r); migration, 391–392(r)  
*T. migratorius*, egg recognition, 267(r); in farm shelterbelts, 273(r); habitat manipulation, 401(r)  
*Turnagra*, systematics, 406(r)  
 Turnstone, Black, see *Arenaria melanocephala*  
*Tyrannus tyrannus*, reproductive biology, 127(r)  
*Tyto alba*, Galapagos Islands, 131(r)  
*Upupa epops*, genetics, 131–132(r); ecology, 400–401(r)  
*Uria aalge*, nesting sites, 122(r); population dynamics, 266(r); 409(r)  
*U. lomvia*, nesting sites, 122(r)  
*Urocolius indicus*, physiology, 503(r)  
*U. macrourus*, physiology, 503(r)  
 U.S.S.R., banding stations, 136(r)  
 Black-headed Gull, feeding, 510–511(r)  
 Black-winged Pratincole, nesting, 395(r)  
 corvid populations 275(r)  
 Great Black-headed Gull, 124(r)  
 Houbara Bustard, nesting, 395–396(r)  
 Whooper Swan, 123–124(r)  
 Utah, California Gull, genetics, 406(r)  
*Vireo solitarius*, habitat manipulation, 401(r)  
 Vireo, Solitary, see *Vireo solitarius*  
 Virgin Islands, birds of, 517–518(r)  
 tern nesting, 243–246  
 Virginia, Pileated Woodpecker, cavity, 490  
 Warbler, Black-and-white, see *Mniotilta varia*  
 Cape May, see *Dendroica tigrina*  
 Cetti's, see *Cettia cetti*  
 Hermit, see *Dendroica occidentalis*  
 Hooded, see *Wilsonia citrina*  
 MacGillivray's, see *Oporornis tolmiei*  
 Prairie, see *Dendroica discolor*  
 Prothonotary, see *Protonotaria citrea*  
 Townsend's, see *Dendroica townsendi*  
 Willow, see *Phylloscopus trochilus*  
 Wilson's, see *Wilsonia pusilla*  
 Yellow-rumped, see *Dendroica coronata*  
 Washington, Dunlin, winter, 343–348  
 Glaucous-winged Gull, breeding, 380–382  
 Osprey, 483–485  
 Waterthrush, Northern, see *Seiurus noveboracensis*  
 West Germany, banding stations, 136(r)  
 bird atlas, 414(r)  
 West Virginia, birds of 409(r)  
 Wheatears, see *Oenanthe isabellina*, *O. oenanthe*, *O. pleschanka*  
 Whitethroat, Lesser, see *Sylvia curruca*  
**wildlife management and economic ornithology**  
 artificial trees used by woodpeckers, 273–274(r)  
 bird densities on islands, 128(r)  
 Blackbird, Red-winged, cornfield damage, 401(r)  
 Bluebird, Mountain, prescribed burning, 401(r)  
 census, line transect, 501(r)  
 crow, population control, 128–129(r)  
 Dove, Mourning, revised age/sex key, 112–114  
 Duck, Black, female survival, 128(r)  
 Wood, nest boxes, 482–483  
 Eider, Common, nesting in Alaska, 128(r)  
 farm shelterbelts, avian use of, 273(r)  
 Grackle, Common, using Wood Duck boxes, 482–483  
 Grouse, Ruffed, habitat, 500(r)  
 Gull, Ring-billed, cannon netting, 128(r)  
 method for assessing breeding success, 151–159  
 Jackdaw, 128–129(r)  
 Junco, Dark-eyed, prescribed burning, 401(r)  
 line transect method, 274(r)  
 Mallard, age characteristics, 500–501(r)  
 Robin, American, prescribed burning, 401(r)  
 snag retention and bird use, 274(r)

- Sparrow, Chipping, prescribed burning, 401(r)  
 Tanager, Western, prescribed burning, 401(r)  
 Vireo, Solitary, prescribed burning, 401(r)  
 Warbler, Yellow-rumped, prescribed burning, 401(r)  
 waterfowl in parks, Massachusetts, 89–96  
 Willet, see *Catoptrophorus semipalmatus*  
*Wilsonia citrina*, Puerto Rico, 376–378  
*W. pusilla*, habitat, 330–335; Puerto Rico, 376–378  
 Wisconsin, birds of, 412–413(r)  
   Broad-winged Hawk, 246–247  
 Wryneck, see *Jynx torquilla*  
 Woodcock, American, see *Scolopax minor*  
 Woodpecker, Acorn, see *Melanerpes formicivorus*  
   Downy, see *Picoides pubescens*  
   Gila, see *Melanerpes uropygialis*  
   Hairy, see *Picoides villosus*  
   Pileated, see *Dryocopus pileatus*  
   Red-bellied, see *Melanerpes carolinus*  
   Red-cockaded, see *Picoides borealis*  
   Red-headed, see *Melanerpes erythrocephalus*  
 Woodpeckers, eastern North America, 411–412(r); world, 139–141(r)  
 Yellowhammer, see *Emberiza citrinella*  
 Yellowlegs, Lesser, see *Tringa flavipes*  
*Zenaida auriculata*, colonial breeding, 393(r)  
*Z. macroura*, age/sex key, 112–114; in farm shelterbelts, 273(r); resident status, 277(r)  
*Zonotrichia capensis*, morphology, 404(r)  
*Z. leucophrys*, juvenile movements, 392(r); Nuttall's, song, 408(r)  
**zoogeography and distribution**  
 Blackbird, Red-winged, decline, 435–443  
 Canvasback, distribution, 405(r)  
 Cowbird, Shiny, range expansion, 104–107  
 Dove, Mourning, California, 277(r)  
 Figbirds, Queensland, 277(r)  
 Goldeneye, Common, distribution, 405(r)  
 Henderson Island, birds of, 277(r)  
 Merganser, Common, distribution, 405(r)  
 Ontario, birds in, 277(r)  
 Owl, Barn, Galapagos Islands, 131(r)  
   Short-eared, Galapagos Islands, 131(r)  
 Pipit, New Zealand, 505(r)  
 Rail, Virginia, Kansas, 38–47  
 Redhead, distribution, 405(r)  
 riparian birds, Arizona, 97–103  
 Scaup, Lesser, distribution, 405(r)  
 Scoter, Black, population, 276(r)  
 Screech-Owl, Eastern, 322–329  
 seabirds, Netherlands, 405(r)  
 Sora, Kansas, 38–47  
 Sparrow, House, dispersal, 444–456  
 Starling, European, New Mexico, 254–257  
 Stilt, Black, New Zealand, 505(r)  
   Pied, New Zealand, 505(r)  
 Tern, Common, Trinidad, 424–434  
*Zosterops lateralis*, food, 408(r)