

# Index

- aggression, 103, 194, 239, 251–252, 261, 267, 286–287, 289, 296, 512, 516, 570–571, 584
- Al Wabra Wildlife Preservation, 193, 197, 211
- alligator snapping turtle, 77–78, 83, 88
- Alps, 339, 347–349, 355, 358
- American Association of Zoo Keepers, 306, 322
- Andean Condors, 432
- animal welfare, 2, 10, 21, 24, 28, 31–32, 37, 39, 42, 48, 62, 150–151, 199, 212–213, 215–216, 219–222, 224, 226, 228, 231, 233–234, 236–237, 240–241, 243, 263, 265–266, 268, 271–272, 306, 315, 323, 408, 491, 508, 558, 560, 564–567, 569, 585, 609, 618, 621, 630–631, 637–640, 646, 650, 652, 661
- Animal Welfare Act, 24
- anteater, 19, 199, 642
- anthropogenic, 137, 411, 416, 420–421, 432, 442, 512, 521, 528, 531, 536, 551, 617, 657
- anthropogenic stressors, 512, 531, 536
- anthropomorphism, 274
- Apenheul Primate Park, 250, 259
- Arabian oryx, 19
- ART. *See* assisted reproductive technology
- artificial insemination, 113, 118–119, 124, 133, 137, 139–143, 145, 208, 320, 444, 453, 468–469, 536, 556
- assisted reproduction, 112–113, 132, 138, 373, 444, 453, 458, 465, 468, 536
- assisted reproductive technologies, 112, 113, 132, 136, 138, 140, 454, 468, 536
- assisted reproductive technology, 113, 132, 136, 140
- Association of Zoos and Aquariums, 1, 25, 28, 31, 34, 46, 49, 56, 58–59, 63, 91, 106, 108, 151, 153, 164, 166, 241, 272, 301, 304, 307, 309, 314–315, 318–320, 322–323, 412, 445, 466, 469, 484, 502, 554, 593, 608, 619, 639, 646, 650, 657
- associative learning, 316
- Australian Institute of Marine Science, 128
- autism spectrum, 176
- aversive stimulus, 257
- avian malaria, 12, 28
- AZA. *See* Association of Zoos and Aquariums
- bachelor group, 251, 305, 316
- Bahia, 191, 193
- Barcelona Zoo, 570
- Barrens topminnow, 79–80, 82, 90
- Batrachochytrium dendrobatidis*, 362, 371, 590, 615
- Bd. See* *Batrachochytrium dendrobatidis*
- bear, 21, 228, 238, 244, 272, 412, 499, 505, 509–510, 570, 595, 599, 662
- BeBee, William, 2
- bee, 113
- Bifengxia Panda Reserve, 124
- Bimini, 175, 177, 179, 181, 183, 185–186, 188
- bioaccumulation, 530–531, 544
- biodiversity, 30, 34, 40, 46, 50, 63–64, 70–73, 85–89, 108, 112, 122, 147, 150, 152, 157, 161, 164, 170, 354, 356, 553, 627, 634
- bison, 19, 113
- black-footed cat, 113
- black-footed ferret, 17, 19, 47, 113, 124, 144, 258, 440–443, 445, 447, 449, 451–452, 454, 456–473
- Black-Footed Ferret Recovery Plan, 444
- bonobo, 16, 30, 260, 262, 266, 271, 565, 584
- Bowling for Rhinos, 51
- Brazilian Institute of Environmental and Renewable Resources, 192, 210
- Bronx Zoo, 2, 11–12, 38, 45, 94, 96–97, 102–103, 108, 151, 636, 655
- Brookfield Zoo, 13, 259, 573, 587, 594
- buffalo, 118, 462–463, 573
- Busch Gardens, 52, 117, 193, 249, 610
- caatinga, 191, 201–202
- calf mortality, 549

## 664 INDEX

- California condor, 19, 47–48, 61, 246, 269, 351, 398, 400–408, 410–413, 415–423, 427, 429–430, 432–434, 436, 438–439, 443, 651, 657
- cane toad, 130, 141, 144
- capuchin, 238, 252, 566
- Carnaby's black cockatoo, 327–329, 333, 335, 337
- cat, 21, 257
- Chengdu Research Base, 115, 124, 407
- Cheyenne Mountain Zoo, 445
- chimpanzee, 234, 238, 248, 254, 261–262, 268–269, 271, 274, 278, 299, 303, 496, 505–506, 508, 558, 565, 571–573, 577, 581, 585, 638
- chytridiomycosis, 104–105, 371, 590–591, 615–616
- CITES. *See* Convention on International Trade in Endangered Species
- citizen science, 608
- Cleveland Metroparks Zoo, 52, 246, 250
- Clever Hans, 495, 507
- cockatoo. *See* Carnaby's black cockatoo
- colobus, 272, 280–282
- colobus monkeys, 249
- Columbus Zoo, 78, 85
- comparative cognition, 490–492, 498, 500–502, 504, 569, 638, 657
- comparative physiology, 586
- comparative psychology, 490, 505, 508, 561, 583, 644
- Condor Cave, 432
- Condor Nest Guarding Program, 421, 427
- Condor Recovery Program, 258, 272, 401, 403–404, 406, 412, 419, 421, 427, 429, 433–434
- control, 5, 11, 41, 104, 130, 225, 227, 230, 238, 242–243, 248, 252, 254, 256, 258–265, 267, 269, 271, 283, 317, 373, 379–380, 384, 394, 419, 442, 467, 471, 483, 498, 502, 509, 519–520, 527, 529, 564–565, 567, 595
- conure, 230
- Convention on International Trade in Endangered Species, 132, 192
- Convention on International Trade in Endangered Species of Wild Fauna and Flora, 77, 89
- coral bleaching, 126–127
- coral reef, 86, 113, 116, 126–128, 137–138, 141, 143, 144, 146, 485
- Cornell Lab of Ornithology, 430
- cranes, 17, 351, 359, 363
- critical anthropomorphism, 559, 561, 564
- cryopreservation, 113–115, 118–120, 125–126, 131, 133–134, 137–146, 395, 444, 454–456, 460, 467–469, 536
- culling, 118, 304–305, 308–315, 317–318, 648, *See* humane euthanasia, *See* population management euthanasia
- dart frogs, 9, 12, 40
- DCP. *See* Dolphin Communication Project
- deer, 113, 118, 407, 581
- Denver Zoo, 53, 247
- Department of the Interior, 99
- desensitization, 530, 570
- Detroit Zoo, 262, 639
- devil facial tumor disease, 123
- Disney's Animal Kingdom, 14, 22, 249, 636
- dolphin, 11, 17, 29–30, 39, 42, 113, 143, 171–173, 175–176, 178–180, 182–188, 223, 236, 267, 511–522, 524–541, 543, 546, 549–550, 556–557, 567, 570, 580, 599, 617, 648–649
- Dolphin Communication Project, 171, 173, 175–177, 179–185, 187
- Dolphin Communication Project Youth Program, 178
- Dolphin Research Center, 523
- Dolphin Research Trainees, 179
- Dolphins Plus, 524
- dominance, 7, 207–209, 212, 286, 299, 439, 515, 541
- drop bear, 482
- Dublin Zoo, 558, 561, 564, 568, 572, 578–579
- Durrell Wildlife Trust, 250
- Eastern cottontail, 98
- Eastern hellbender, 94, 101, 103–104, 109
- EAZA. *See* European Association of Zoos and Aquarium
- ecotourism, 84, 185, 655
- ectothermic, 69, 129, 600
- Edinburgh Zoo, 270, 568
- EE. *See* environmental education
- electroejaculation, 119, 131, 453
- elephant, 6, 8, 10–11, 16, 18, 21, 27, 29, 32–34, 38–39, 42, 119, 139, 144, 249, 253, 257, 260, 262, 268, 273, 496–497, 508, 564, 570, 572, 620, 635, 643–644, 649–650
- Endangered Species Act, 3, 66, 74, 79, 81, 99, 368, 443

- Environment Protection and Biodiversity Act, 329
- environmental education, 147–153, 155, 157, 164, 169–170, 200, 647, 661
- environmental enrichment, 3, 14, 21, 29, 38, 41, 219, 221, 224–229, 231, 233–240, 253, 259, 261–263, 267–269, 271–272, 315, 459, 470, 472, 498, 500, 502, 508, 559, 562–563, 567, 571, 574, 580–584, 599, 602, 611, 617, 635
- EPCOT's The Living Seas, 524
- ESA. *See* Endangered Species Act
- ethics, 31–32, 152, 308, 315–316, 319–320, 323–324, 490, 631
- ethogram, 215–216, 219, 502
- European Association of Zoos and Aquariums, 46, 61, 298, 304
- euthanasia, 118, 133, 306–311, 313, 317–318, 324, 331, 385, 394, *See* culling
- ex situ*, 26, 39–40, 47, 108, 110, 145–146, 151, 164, 166, 191–192, 199, 201, 209–210, 271, 384, 472, 477, 487, 518, 600, 622
- facultative parthenogenesis, 591–594, 596, 609, 611, 616
- failure of exploration, 255
- feather plucking, 229, 234
- Florida panther, 457, 461, 469–470
- foraging, 92, 106, 178, 208, 218, 225, 228–229, 236, 246, 254, 259, 262, 276–277, 289, 334, 336, 407, 409, 433, 493, 506–507, 512, 518, 523–524, 526, 577
- fox, 113, 123, 408
- FPZSP. *See* Sao Paulo Zoological Park Foundation
- Frankfurt Zoo, 152, 260, 630
- free contact, 257
- free-range, 250
- freshwater ecosystems, 64, 67, 73, 85
- frog, 113
- Frozen Ark Project, 116, 136
- functional ecology, 122
- functionally extinct, 16
- gamete rescue, 118, 142
- gene banking, 112–113, 118, 121, 124–125, 128, 134–136, 137, 649
- genetic bottleneck, 125
- genetic diversity, 12, 15, 80, 101, 112, 124–128, 135, 143–144, 304, 374, 380, 415, 454–455, 487, 556
- genetic management, 28, 113, 124, 132, 146, 365, 460, 536
- Genome Resource Bank, 115–116, 454, 467
- gerenuk, 113
- germ line, 113, 119
- giant panda, 11, 17, 36, 42, 113, 115, 120, 124, 137, 140, 146, 221, 238, 248, 253, 271, 407, 415, 493–495, 496, 506–509, 621, 626, 631–632, 645
- gibbon, 249, 283, 286
- giraffe, 249
- Global Species Management Plan, 305
- goanna, 130, 131
- golden lion tamarins, 11, 17
- gorilla, 234, 248, 251–252, 277, 299, 301–303, 493, 496, 506, 565, 570, 572, 577, 581, 621, 625, 632, 634, 638, 642, 645
- GPS tracking device, 334
- Great Barrier Reef, 126–128, 138
- group composition, 3, 6
- habituation, 260, 512, 518, 563, 579, 583
- hard release, 92
- hatcheries, 78, 79, 81, 97
- Hawaii Institute of Marine Biology, 126
- headstarting, 91–93, 95–97, 99, 103–110, 649
- Hediger, Heini, 2
- hellbender, 101, 103–105, 108, 111
- Henry Doorly Zoo, 116, 445, 589
- hippopotamus, 14, 29
- Honolulu Zoo, 573
- Hopper Mountain National Wildlife Refuge Complex, 428, 433, 435
- Houston toad, 47, 367–368, 370–371, 373–374, 379–380, 383–384, 388, 390, 392, 395–396, 398, 648
- Houston Zoo, 262, 369–370, 372, 383–384, 394, 396, 398
- human environmental impacts, 165
- Human Subjects Review Board, 24
- humane euthanasia, 306, 309, 324, *See* culling
- hydrophone, 176, 527

## 666 INDEX

- ibex, 113, 118, 143
- imprinting, 340, 346, 350–351, 592
- in situ*, 15, 26–27, 39–40, 42, 45–46, 48–49, 54, 59, 132, 145, 151, 164, 166, 168, 192, 197, 199, 209, 211, 468, 472, 477, 482, 486, 518, 622, 648
- Indianapolis Zoo, 631
- induced pluripotent stem cells, 121, 141
- informal education, 180
- Institutional Animal Care and Use Committee, 24
- International Union for the Conservation of Nature, 49, 62–63, 94, 98, 107, 122–123, 129, 138, 210, 274, 294, 342, 362–363, 551, 556
- iPSCs. *See* induced pluripotent stem cells
- IUCN. *See* International Union for Conservation of Nature
- Jacksonville Zoo, 250, 628
- Kaarakin Black Cockatoo Conservation Centre and Native Animal Rescue, 331–332
- Kewalo Basin Marine Mammal Laboratory, 519
- keystone species, 122, 125, 440, 463, 647
- Kihansi spray frog, 19
- killer whale, 18, 20, 40, 529, 538, 543–545, 547–548, 551, 555–557, 575, 579
- koala, 382–383, 477–488, 648
- Koala Education and Conservation Program, 477
- Komodo dragon, 17, 567, 587, 593, 602–603, 607–608, 617
- Konrad-Lorenz research station, 347–348
- lake sturgeon, 79–81, 89
- laurel dace, 74–76, 81–82, 87
- Lear's macaw, 191–192, 194–195, 197, 199, 201–203
- learned helplessness, 255
- lemur, 9, 32, 276, 286–288, 290, 299–300, 302, 565, 583
- leopard, 113, 575
- lexigrams, 262
- LIFE+, 354–355, 362
- Lincoln Park Zoo, 250, 262, 631, 654
- lion, 249
- Little Fireface Project, 292
- Living Earth Collaborative, 589
- locomotor play, 559, 601
- London Zoo, 22, 152, 637
- London Zoological Society, 15
- lorises, 246, 267, 278, 291–292, 299, 301, 303
- Loro Parque, 193, 197
- Los Angeles Zoo, 261, 401, 403, 415–416, 418, 421, 424, 428–430, 436
- Louisville Zoological Gardens, 445
- macaw, 192, 200, 203, 207
- maleo, 94–97, 106–111
- mammal, 17, 21
- marabou storks, 31
- marine mammal, 171, 178, 180, 512–514, 528–530, 533–536, 540, 548
- Marine Mammal Protection Act, 528, 533
- Marine Studios, 512–513. *See* Marineland
- marmoset, 118, 142, 256, 261, 267, 278, 282, 288–289, 302, 493, 583
- Maryland Zoo, 262
- maternal care, 513, 645
- Mauterndorf, 339, 341
- megapode, 94, 107–109
- Melbourne Zoo, 50, 567, 631, 635
- microhabitat, 76, 103, 248
- microlight, 339–340, 348, 352–353
- minimum viable population, 355
- mobile video-acoustic system, 175–176, 179
- molting, 552
- Moorpark College, 430
- Murdoch University, 330, 334–335
- Mystic Aquarium, 180
- National Aquarium in Baltimore, 9, 12
- National Zoological Park, 146, 170, 445, 454, 458, 467
- National Zoological Park's Conservation and Research Center, 445
- natural habitat, 164, 564, 567
- Natural History Museum and University of Nottingham, 136
- Natural Resource Conservation Service, 99
- Navy Marine Mammal Program, 527
- NECT. *See* New England cottontail rabbit
- neutral detergent fiber, 277–278, 280, 287, 292

- New England cottontail rabbit, 94,  
     98–101  
 New York Zoological Society, 2, 33  
 Newquay Zoo, 280  
 nongovernmental organization, 7, 652  
 North Carolina Zoo, 53  
 northern bald ibis, 19, 339, 342–344, 346–350,  
     352, 354–357, 361–365  
 northern resident, 549, 556  
 northern white rhino, 16  
 novelty, 114, 251, 564, 582  
 nutrient overload, 126
- object play, 175, 188, 418, 576, 582, 601–603,  
     612  
 ocelot, 19, 113, 120, 145  
 Oklahoma City Zoo, 631  
 onager, 113  
 one-team conservation, 428  
 oocytes, 119, 128  
 operant conditioning, 36, 237, 253, 362, 520,  
     527  
 orangutan, 234, 238, 246, 252, 259–261,  
     266–268, 271–272, 277, 283, 302, 493,  
     496, 506, 508–509, 567, 569, 572, 576,  
     638  
 orca, 18, 20, 40, 113, 538, 545, 555–557,  
     575  
 otters, 271, 494, 528, 574, 576, 599, 602  
 outreach, 82, 84, 429–430, 432–433, 436, 500,  
     569, 651–652, 656–657
- pacing, 13–14, 228, 244, 500  
 Paignton Zoo, 14, 279, 281, 283, 286, 288,  
     290–291, 293, 301  
 Pallas' cat, 113  
 pangolins, 14  
 parthenogenesis, 592–593, 595–596, 609,  
     611–612, 614, 616–617  
 PCBs. *See* polychlorinated biphenyls  
 penguin, 113, 142, 543, 551–552, 554–556,  
     568, 576  
 Pere David's deer, 19  
 Peregrine Fund, 406  
 persistent pollutants, 544  
 personality, 234, 240, 251, 617  
 Perth Zoo, 331, 334, 337, 647  
 Philadelphia Zoo, 250  
 Phoenix Zoo, 445, 594, 613  
 Pinnacles National Park, 421, 436
- play bout, 565  
 polar bear, 228  
 pollutant, 543–544, 551, 556  
 pollution, 82, 126, 526, 529, 543–544, 551  
 polychlorinated biphenyls, 531, 544, 555  
 population management euthanasia, 306–307,  
     309, 314, 318–319, 321, *See* culling  
 positive reinforcement, 16, 227, 252,  
     257–260, 266–268, 270–271, 520, 530,  
     570  
 post-occupancy evaluations, 265  
 prairie dog, 20, 262, 440–442, 444, 446–448,  
     450, 452, 459, 462–463, 465, 467–471  
 precautionary principle, 122  
 predatory play, 559  
 pregnancy loss, 546, 548–550, 553  
 primate, 9, 21, 31, 36–37, 40, 119, 144,  
     239–240, 250–251, 260–261, 264–265,  
     270, 272–274, 276–278, 280, 282,  
     285–286, 289, 292–293, 295–302,  
     307, 318, 498, 508–509, 521, 559,  
     561, 563, 565, 567, 571, 573, 576,  
     579–580, 583, 599, 626, 637, 642–644,  
     646, 649, 656  
 Primate Nutrition Workshop, 294  
 protected contact, 252, 257, 268, 273  
 pseudopregnancy, 453, 546–547, 550
- quantity judgment, 497  
 Queens Zoo, 94, 98–99
- ratite, 119  
 Red List, 107, 122–123, 129, 210, 300, 342,  
     556  
 reintroduction, 19, 30, 32, 38, 45, 47–49,  
     53–54, 56, 62–63, 66, 76, 78–81, 87, 89,  
     92, 99, 101, 107, 110, 135, 199, 239, 311,  
     339, 345–346, 349, 354, 356–357,  
     361–362, 365, 375, 380, 396, 398, 401,  
     411–412, 416, 421, 428–429, 432, 434,  
     444, 447, 449, 451, 458, 460, 462–464,  
     466, 649  
 repetitive behavior. *See* stereotypic behavior  
 rhinoceros, 17, 39, 113, 119–121, 139,  
     142–143, 145, 221, 231, 234  
 river, 64, 66, 70, 73, 75, 77, 79–80, 84, 86,  
     88–89, 98, 101, 108, 178, 271, 336, 340  
 Roatan Institute for Marine Sciences, 172,  
     174–175, 180  
 Roger Williams Park Zoo, 99

## 668 INDEX

- Sacramento Zoo, 322  
 SAFE. *See* Saving Animals From Extinction  
 salamander, 64, 69–70, 86–87, 101, 108, 111, 496, 587  
 saltwater crocodile, 132  
 San Diego Frozen Zoo, 116, 461  
 San Diego Zoo, 45, 53, 257–258, 374, 382–383, 401, 403–405, 411, 413, 421, 430, 435, 477–478, 482–484, 486–488, 589, 632, 636, 638  
 Santa Barbara Museum of Natural History, 421, 430, 435  
 Santa Barbara Zoo, 400–403, 405, 408, 417, 419, 422, 428–429, 433–434, 436, 651  
 São Paulo Wild Fauna Conservation Center, 199–200, 202, 205, 207  
 São Paulo Zoo, 147, 150, 153, 156, 158–162, 164, 166, 191, 193, 199, 203, 648  
 São Paulo Zoological Park Foundation, 155–156, 158–161, 163, 165, 194–195, 197, 199, 201–202, 205, 209, 211  
 Sarasota Dolphin Research Program, 549  
 Saving Animals From Extinction, 58  
 science, technology, engineering, and mathematics, 171, 177, 179, 182, 504  
 SCNT, 460  
 sea lion, 263, 268, 574, 583  
 seabirds, 551  
 SeaWorld, 20, 117, 521, 550  
 self-directed behavior, 230–231, 256, 286–289  
 self-recognition, 521, 523  
 sex determination, 129, 612, 616  
 sidewinder, 605–606  
 signature whistles, 519, 522, 525–526  
 Singapore Wildlife Reserves, 280  
 skink, 131, 133–134, 141  
 Smithsonian, 19, 31, 33–35, 37–38, 40–42, 62, 117, 126, 146, 170, 237, 271, 323, 446, 460, 470, 581, 584, 612, 616, 632, 636–637, 652  
 snow leopard, 251, 270  
 social play, 559, 561, 565–566, 571, 577, 580, 582, 584–585, 601–602, 617  
 soft release, 19, 92, 106  
 southern residents, 538, 544, 548–549  
 spatial cognition, 493  
 spatial memory, 493–496, 507  
 Species Survival Plan, 39, 320, 322, 445, 451, 460  
 Sperm storage, 593, 611  
 spider monkey, 284, 602  
 SSP. *See* Species Survival Plan  
 Saint Louis Zoo, 53, 631  
 STEM. *See* science, technology, engineering and mathematics  
 stem cells, 16, 138, 141  
 stereotypic behavior, 3, 220, 231, 289, 500, 560  
 stream, 64, 66, 68–70, 73–76, 84, 101, 104–105, 407, 430, 567  
 stress response, 260, 470  
 studbook, 15, 203, 210, 451, 455, 469, 478  
 sun bear, 499, 502, 508  
 Swan Coastal Plain, 327–328  
 tamarin, 41, 199, 251, 253, 268, 278, 283, 493, 506  
 Taronga Western Plains Zoo, 134  
 Taronga Zoo, 134, 619  
 Tasmanian devil, 123, 139  
 Taxon Advisory Group, 321  
 Tennessee Aquarium, 65, 69–70, 74, 77–80, 82–83, 85  
 tiger, 17, 249, 261, 270, 273, 324, 662  
 time budget, 215–216, 218, 222, 228  
 time out, 257, 389  
 toad, 113, 131, 367, 369–374, 376–377, 379–381, 383, 385, 387–388, 390, 392–395, 587, 616  
 Toledo Zoo, 594  
 Toronto Zoo, 117, 249, 445  
 touchscreen, 271, 498–499, 502, 508  
 tragedy of the commons, 321  
 training, 20, 29, 37, 40, 54, 60, 88, 106, 108, 152, 156–157, 160–161, 164, 198, 217, 223, 226–228, 231, 237, 252–254, 257–260, 263, 266–272, 298, 316, 320, 352, 367, 499, 513, 524, 527, 530, 559, 569–571, 581, 583–584  
 unihemispheric sleep, 514, 535  
 United Nations Conference on Environment and Development, 148  
 United States Fish and Wildlife Service, 74, 77, 80–81, 87, 89, 99, 103, 258, 272, 368, 370, 379, 385, 393–394, 402, 406, 409, 415–416, 419, 421, 423, 429–430, 433, 435, 437, 441, 444–445, 448–449, 451, 464, 466, 472, 654

- USDA. *See* United States Department of Agriculture
- USFWS. *See* United States Fish and Wildlife Service
- varanid, 13, 38, 130, 133, 145, 593, 607
- Ventana Wildlife Society, 405, 419, 421, 435
- visitor experience, 6, 261, 498, 559
- visitors, 13, 49, 51, 56, 59, 68, 82–83, 87, 106, 150–152, 154, 156–160, 166, 168–169, 225, 230, 252, 261, 265, 269, 271–272, 274, 404, 429, 496, 500–503, 508, 536, 562, 567, 572, 574–575, 622, 644–646, 656–657, 659
- Waldrappteam, 348, 355, 358, 365
- wasting syndrome, 284
- watershed, 70, 72, 103–104, 529
- WCS. 94, 96–97, 99, 103, 109 *See* Wildlife Conservation Society
- Wellington Zoo, 573, 579, 639
- West Nile virus, 12, 36, 205, 424
- Western Australia Conservation Act, 328
- whooping crane, 19
- Wildlife Conservation Society, 12, 15, 45, 53, 61, 94, 108, 322, 636, 655
- wolf, 113, 323, 645
- wolves, 246, 253, 268, 599
- Woodland Park Zoo, 22
- World Association of Zoos and Aquariums, 28, 49, 61, 63, 151, 164, 170, 224, 237, 240, 271, 305, 322–323, 363, 631, 639
- World Wide Fund for Nature, 304
- XY sex chromosomes, 591, 613
- zebra, 576
- Zoo and Aquarium Association, 32–33, 36–37, 39, 61, 304, 644
- Zoo Atlanta, 32–33, 37, 39, 61, 257, 261, 415, 496, 502, 505, 587, 589, 605, 608, 625–626, 631, 635, 643, 654–655
- zoo biology, 1–2, 27, 36, 271, 618–619, 622, 629, 646
- Zoo Boise, 59
- Zoo Zurich, 250
- Zoological Garden of Tel Aviv University, 589
- Zoological Society of London, 2, 25, 38, 136, 146, 168, 637
- Zoos Victoria, 59, 631, 639
- Zurich Zoo, 261, 270
- ZW sex chromosomes, 591, 596