Index

Scientific names of animals and plants can be found in Appendix B.

A

Abalone, 47
 - withering syndrome in, 52, 322
Abbrins, in biowarfare/bioterrorism, 352
Abscess
 - brain, in deer, 224–225
 - in harvested wildlife, 217
Abstracting services, 289–294
Acanthocephalasis
 - in birds, 220–221
 - fauna affected, 320
 - geographic area affected, 320
 - in sea otters, 60, 221
Abscess, in bees, 351
Acinetobacter, human disease from animal bites/scratches, 197
Acroporids, 42–43
Adenovirus hemorrhagic disease
 - fauna affected, 313
 - geographic area affected, 313
 - in mule deer, 76, 80
Adenovirus infection
 - fauna affected, 313
 - geographic area affected, 313
 - in long-tailed ducks, 63
Adventure tourism, 195
Aeromonas, human disease from animal bites/scratches, 197
Aeromonas caviae
 - fauna affected, 316
 - geographic area affected, 316
Aeromonas hydrophila, in sea turtles, 51
Aeromonas jandeaei
 - fauna affected, 316
 - geographic area affected, 316
Aeromonas salmonicida, see Furunculosis
Aerosol transmission, 10, 31, 195, 199
 - of biowarfare/bioterrorism agents, 234
Aflatoxicosis
 - in birds, 105
 - game meat and, 228
 - in snow geese, 76
   African horse sickness
   - in biowarfare/bioterrorism, 242, 254–255, 257, 346
   - in zebras, 150
African sleeping sickness, 12
African swine fever, in biowarfare/bioterrorism, 242, 251, 255, 257, 346
African tick-bite fever, 13
African trypanosomiasis, 12
Agricola (database), 291, 293
Agriculture, 99, 103, 105
 - world trade in agricultural products, 201
Agris (database), 293
Agroterrorism, 244, 247–249, 259, 262
 - characteristics of most dangerous pathogens, 249
 - pathogens of concern, 251–257
AIDS, see HIV/AIDS
Airborne disease, see Aerosol transmission
Air conditioning, 99
Airline travel, 193, 201
Alaskan Wildlife Diseases, 287
Alaska SeaLife Center, 173
Algae
 - coral bleaching, 46
 - coralline lethal orange disease, 44–46
Algal blooms, 48–49, 105, 209
Alligators
 - alligator meat, 154, 165
 - game ranching, 153–154
 - human disease from bites/scratches, 197
Alphavirus, in biowarfare/bioterrorism, 247
Alternative agriculture, see Game ranching
American coots, trematodes in, 75
American foulbrood, in biowarfare/bioterrorism, 349
American Journal of Epidemiology, 292
American Journal of Tropical Medicine and Hygiene, 292
Amidostomum, see Gizzard worms
Amnesic shellfish poisoning, 49
Amphibian Medicine and Captive Husbandry, 286
Amphibians
 - anchorworms in, 65
 - Batrachochytrium in, 66
 - chlamydiosis in, 65
 - chytridiomycosis in, 21, 63–67
 - common and scientific names of, 332
 - Dermatophyton in, 65
 - disease emergence in, 63–68
 - fungal diseases in, 64
Amphibians—Continued

Ichthyophonus in, 64
leeches in, 65
malformations in, 65, 67
Perkinsus-like infection in, 65
population declines, 63, 67
ranavirus in, 63–67
Ribeiroia in, 65
saprolegniasis in, 64
translocations of, 67, 148

Amplification host, 37
Anaplasmosis, in biowarfare/bioterrorism, 350
Anatoxins, in biowarfare/bioterrorism, 352

Anchorworms
in amphibians, 65
dauna affected, 320
gеographic area affected, 320

Andromous fish, jurisdiction and regulatory authorities
for stewardship of, 259

Angiomatosis
bacillary, 96
dauna affected, 321
gеographic area affected, 321
Animal bites, 10, 31, 96, 195, 197, 199
by companion animals, 93
by marine mammals, 58
Animal hides, 7, 15, 130, 148–149, 151–153, 156
Animal migration, 99
Animal parts, disposal of, 211
Animal Plagues, 276–277
Animal Plant and Health Inspection Service (APHIS), 133
Animal processing, 195
Animal scratches, 10, 93, 96, 195, 197
Animal translocations, see Translocations of wildlife
Anisakiasis
foodborne, 86–87, 89
routes for human exposure to, 15
Annotated Bibliography of Helminthes of Waterfowl, 290

Antelope
antelope meat, 165
game ranching, 165
hemorrhagic disease of, 226–227

Anthrax
from animal hides, 7
in deer, 76
letter attacks of 2001, 236
research on, 244
zoonoses-specific publications, 282
Antibiotics, 99
resistance to, 25, 103

Antlers, 151
Antler velvet, 151, 153
Apes, 156
Aphanomycyes invadans, 48
APHIS, 133
Appendicitis, from lead shot ingestion, 211
Aquaculture, 47, 50, 68, 71, 90, 99, 103–105, 140, 142, 244
founder stocks for, 105
Aquarium fish, 94–95, 105, 166
Aquatic Sciences and Fisheries Abstracts (database), 294
Araeolaimus, 43
Argentine hemorrhagic fever, in biowarfare/bioterrorism, 245, 346
Arthropods
as amplification hosts, 37
common and scientific names of, 332–333
spread by wild birds, 37
Arthropod-vectored diseases, 7, 10, 12, 31, 98, 199
Artiodactyls, 242
Asclepiadae, 7
Asian tapeworm, in freshwater fish, 69
Asian tiger mosquito, 105
Aspergillosis
in birds, 175, 227–228
in Canada geese, 227
human disease from animal bites/scratches, 197
in waterfowl, 103
Aspergillus sydowii, see Sea fan disease
Astrovirus, foodborne, 86
Atlas of Travel Medicine and Health, 202
Atrophic rhinitis of swine, in biowarfare/bioterrorism, 349
Audubon Center for Birds of Prey, 173
Aujeszky's disease, see Pseudorabies
Aum Shinrikyo cult, 241–243
Avian botulism, 228
toxin in fish, 21–24, 31, 212
type C, 105
fauna affected, 321
geographic area affected, 321
in United States, 21, 26
in waterbirds, 21, 27, 72–73, 75
type E
fauna affected, 321
geographic area affected, 321
in waterbirds, 21–24
Avian cholera, 105, 222
in biowarfare/bioterrorism, 242, 349
fauna affected, 316
in geese, 224
gеographic area affected, 316
in marine birds, 55, 62
in waterbirds, 73–74, 77
in waterfowl, 242

Avian Cholera and Related Topics: An Annotated Bibliography, 290
Avian diseases, 13

Avian Diseases (journal), 292
Avian infectious bronchitis, in biowarfare/bioterrorism, 346
Avian infectious laryngotracheitis, in biowarfare/bioterrorism, 346
Avian influenza
  avian influenza virus H5N1, 265, 301
  in biowarfare/bioterrorism, 252, 257–258, 346
  costs incurred by society from, 138
Avian malaria
  fauna affected, 319
  geographic area affected, 319
  in Hawaii, 98
Avian pox, 81
  in bald eagles, 226
  in biowarfare/bioterrorism, 346
  fauna affected, 313
  geographic area affected, 313
  in Hawaii, 98
  in songbirds, 175
Avian tuberculosis, 225
  in biowarfare/bioterrorism, 349
  in ducks, 214
  fauna affected, 318
  geographic area affected, 318
  in whooping cranes, 217
Avian vacuolar myelinopathy
  bird mortalities from, 78
  fauna affected, 321
  geographic area affected, 321
  pathology of, 78
  in waterbirds, 75, 78

B

Babesiosis
  bovine, in biowarfare/bioterrorism, 351
  crossing species barriers, 101
Baboons, 83–84
  human diseases in, 163
Bacillary angiomatosis, companion animals as sources of, 96

Bacillus anthracis, see Anthrax

Bacillus cereus
  fauna affected, 316
  foodborne, 89
  geographic area affected, 316

Bacillus mycoides
  fauna affected, 316
  geographic area affected, 316

geographic area affected, 316
Baconism, 278–279

Bacterial and Viral Zoonoses, 281
Bacterial diseases
  biowarfare/bioterrorism agents, 349–350
  companion animals as sources of, 93
  crossing species barriers, 101
  fauna affected, 316
  foodborne, 84, 86
  game meat and, 222–225
  geographic area affected, 316
  human disease from animal bites/scratches, 197
  human disease from handling wildlife, 198
  pathogen characteristics, 16
  sources of human disease, 25
Bacterial kidney disease
  fauna affected, 316
  in finfish, 71
  geographic area affected, 316
Bacterial wilt, in biowarfare/bioterrorism, 257, 349

Bacteroides, human disease from animal bites/scratches, 197

Bag limits, 158
Bald eagles
  avian pox in, 226
  avian vacular myelinopathy in, 75
  deaths in Wisconsin, 78, 82, 322
Ballast water, 39, 71, 105
Batrachochytrium, see Chytridiomycosis

Bats
  fungal spores in guano, 15
  human diseases from bites/scratches, 197
  rabies in, 7, 13, 31, 195
Baylisascariasis, in raccoons, 6, 218
Bear meat, 91
Beavers
  giardiasis in, 37
  translocations of, 141, 147
  tularemia in, 224–225
Bees, diseases of, 244, 349, 351

Beggiatoa, 43
Bibliographies, 288–291
Bibliography of References to Avian Botulism: Update, 291

A Bibliography of Cooperative Extension Service Literature on Wildlife, Fish, and Forest Resources, 210

A Bibliography of References to Diseases of Wild Mammals and Birds, 290

Bibliography of Ticks and Tickborne Diseases: From Homer (about 800 B.C.) to 31 December 1984, 291

Bighorn sheep, translocations of, 140–141, 147
Biodefense spending, 243
Biohazard, the Hot Zone and Beyond: Mankind's Battle Against Deadly Disease, 285

Bioinvasion, 285

Biological Abstracts (database), 291, 294

Biological and Toxin Weapons Convention (BWC), 240, 244, 256–257

Biological control, infectious diseases used for, 260–261

The Biology of Animal Viruses, 277

Biosafety facilities, 23

level-3 facilities, 135, 243

level-4 facilities, 243

Bioterrorism, 1, see also Biowarfare/bioterrorism

- costs of, 244
- defined, 234
- fear factor in, 239–240
- impact on conduct of scientific research, 244

Biotic diversity, 26

Biotoxins, see Toxins

Biowarfare/bioterrorism, 1, 231–265, 302

- agroterrorism, 244, 247–249, 251–257, 259, 262
- animal diseases and, 244–245
- attributes required for effective weapons, 241
- availability of biological agents, 239
- biodefense spending, 243
- biowarfare vs. bioterrorism, 236–242
- costs from, 243
- critical elements necessary for event to occur, 240
- history of, 234–237
- information sources, 238–239
- list A disease from OIE, 244, 255
- means of pathogen dissemination, 239
- pathogens of concern, 244–257, 346–352
  - bacteria, 349–350
  - category A, 245
  - category B, 246–247
  - category C, 250
  - “double agents,” 248–249
  - fungi, 350–351
  - parasites, 351–352
  - prions, 348–349
  - rickettsia, 350
  - viruses, 346–348
- potential perpetrators, 239
- present situation, 236–243
- preventative steps to reduce risks for, 264
- toxins, 352
- wildlife and, 258–264
  - early detection and response to illness, 259
  - knowledge and networks, 263–264
  - surveillance and monitoring of wildlife diseases, 263–264
  - wildlife as disease delivery systems, 260–261
  - “BioWatch Initiative,” 243

Birds

- caged, see Caged birds
- common and scientific names of, 333–335
- human disease from bites/scratches, 197
- marine, see Marine birds
- salmonellosis in, 78
- terrestrial, 75–78, 81
- Usutu virus in, 77, 81
- West Nile virus in, 75–76, 79

Bison

- bison meat, 151, 165, 228
- bovine tuberculosis in, 151, 154–155, 225, 242
- bovine viral diarrhea in, 155
- brucellosis in, 105, 151, 225
- game ranching, 151–152, 154–155, 165
- infectious bovine rhinotracheitis in, 155
- Johne’s disease in, 155
- malignant catarrhal fever in, 154–155
- necrobacillosis in, 155
- pasteurellosis in, 155
- scours in, 155
- translocations of, 151

Bite, see Animal bites

Black-band disease, in coral, 42

Black bears, translocations of, 147

Black Death, see Plague

Blackhead, in turkeys, 220

Black spot/grub, in fish, 219

Bleaching, coral, 46–47

Blowhole sampling, 198

Blue mold, in biowarfare/bioterrorism, 257, 350

Bluetongue virus

- in biowarfare/bioterrorism, 252, 255, 257, 346
- in deer and antelope, 214, 226–227

Boats, contaminated surfaces of, 71

Bohle iridovirus, 64

Bolivian hemorrhagic fever, in biowarfare/bioterrorism, 245, 351

Bonamiosis, in biowarfare/bioterrorism, 351

Borrelia burgdorferi, see Lyme disease

Bot flies

- in harvested wildlife, 216, 218
- in rabbits, 220

Bothriocephalasis

- fauna affected, 320
- geographic area affected, 320

Bottled drinking water, 88

Botulism

- avian, see Avian botulism
- in biowarfare/bioterrorism, 245, 352
- foodborne, 89, 215
human disease, 25
Botulism-intoxication, in waterbirds, 75
Bovine genital campylobacteriosis, in biowarfare/bioterrorism, 349
Bovine spongiform encephalopathy, 226, 247
  in biowarfare/bioterrorism, 348
  costs incurred by society from, 138
  crossing species barriers, 101
  foodborne, 85
  human disease, 25
Bovine tuberculosis, see Tuberculosis, bovine
Bovine viral diarrhea, in bison, 155
Brain abscess, in deer, 224–225
Brevetoxicosis
  fauna affected, 321
  geographic area affected, 321
  in manatees, 49
Brown tides, 48
Brucellosis
  in biowarfare/bioterrorism, 246, 256, 349
  in bison, 105, 151, 225
  in caribou, 225
  in elk, 105, 172, 175, 225
  fauna affected, 316–317
  in feral swine, 225
  foodborne, 84
  geographic area affected, 316–317
  information sources, 284
  in marine mammals, 55–56, 58
  zoonoses-specific publications, 282
Brush-tailed possum, 149
Buffalo
  bovine tuberculosis in, 242
  rinderpest in, 76
Bullet fragments, in game meat, 211
Bungarotoxins, in biowarfare/bioterrorism, 352
Burkholderia mallei, see Glanders
Burkholderia pseudomallei, see Melioidosis
Bush meat, 130, 160–161
B-virus, 100

C
CAB Abstracts (database), 294
Caged birds, 94–95
  ornithiosis in, 12
  translocations of, 150
Caimans, game ranching, 153
Calicivirus, in marine mammals, 56–57
California Raptor Center, 173
Camping, 5, 8
Campylobacteriosis
  in biowarfare/bioterrorism, 349
  companion animals as sources of, 94
  fauna affected, 317
  foodborne, 85–86, 92
  geographic area affected, 317
  migratory birds as reservoirs for, 87
  waterborne, 88
Canada geese
  aspergillosis in, 227
  captive propagation of, 145, 158
  lead poisoning in, 214
  nonmigratory urban populations of, 102
  translocations of, 141
Canadian Cooperative Wildlife Health Centre, 133, 262–263
Canadian Cooperative Wildlife Health Centre Newsletter, 290
Cane rat, game ranching, 152
Canids
  canine distemper virus in, 81
  canine parvovirus in, 80
  human diseases from bites/scratches, 197
  wild
    canine parvovirus in, 160
    heartworm from domestic animals, 160
Canine distemper virus
  adaptation and change, 106
  in biowarfare/bioterrorism, 242
  fauna affected, 313
  in felids, 83
  geographic area affected, 313
  in lions, 76, 80, 83, 242
  in marine mammals, 54, 242
Canine parvovirus
  fauna affected, 313
  geographic area affected, 313
  in wild canids, 80, 160
Canning, of game meat, 215
Capillariasis
  in biological control of vertebrates, 261
  in mice, 261
Capnocytophaga canimorsus, from animal bites, 93–94
Caprine arthritis/encephalitis, in biowarfare/bioterrorism, 346
Captive-propagated wildlife, 83, 139, see also Game ranching
  birds and mammals for recreational hunting, 142, 145
  movement of pathogens between facilities and surroundings, 140, 143
  national wildlife health strategy, 178–179
  released animals, 106, 130
    health certification of, 158–159, 177
  waterfowl, 158
  waterfowl health regulation, 158
Capture myopathy, 217
Capybara
capybara meat, 165–166
game ranching, 152
Carcass
assessment of
external examination, 212–214
internal examination, 213–217
diseased, contamination of water supply with, 245
handling and processing of, 210–211
Caribou
brucellosis in, 225
caribou meat, 215, 218
myiasis in, 218
Carnivores
feeding on carcasses or discarded viscera, 211
human diseases from bites/scratches, 197
tapeworm life cycle, 211, 213
terrestrial, contact with seals, 54–55
Carp, spring viremia of, 68–71, 315, 348
Carrier, 12
Castor bean poisoning, 105
Cat fleas, 195
Cats
cat feces, 222
domestic, 12, 30, see also Companion animals
feline panleucopaenia in, 261
feral, 261
Cat scratch disease, companion animals as sources of, 94–95, 195
Cattle
agroterrorism targets, 248–249
bovine tuberculosis in, 242
rinderpest in, 242
caza, 160–161
CDC, focusing on emerging diseases, 23
Central European encephalitis, in biowarfare/bioterrorism, 250, 348
Ceratomyxa shasta
fauna affected, 319
geographic area affected, 319
Chytridiomycosis
in amphibians, 21, 63–67
fauna affected, 319
geographic area affected, 319
Ciguatera fish poisoning, 87
in biowarfare/bioterrorism, 352
increase in occurrence of, 49
Citrobacter, human disease from animal bites/scratches, 197
Citrus canker, in biowarfare/bioterrorism, 257, 349
Civet cats, as origin of SARS virus, 164
Clams
disseminated neoplasia in, 53, 322
domoic acid in, 49
hard, 52
marine, 47
quahog parasitic unknown disease in, 52
soft-shelled, 53
Clinostomum complanatum, see Yellow grub
CLOD, see Coralline lethal orange disease
Clostridium, human disease from animal bites/scratches, 197
Clostridium botulinum, see Botulism
Clostridium perfringens
enterotoxemia in wild birds, 105
foodborne, 89
Coadaptation, between hosts and pathogens, 25
Coastal regions, 39–41

in biowarfare/bioterrorism, 349
companion animals as sources of, 94
fauna affected, 317
geographic area affected, 317
in migratory birds, 31
pathogen characteristics, 16
in waterbirds, 73
in wildlife rehabilitation facilities, 13
Cholera, 97, 106
avian, see Avian cholera
in ballast water, 105
in biowarfare/bioterrorism, 234, 237, 247, 349
epidemics and pandemics of, 40
foodborne, 86, 89
marine environment and, 40
Snow's investigation of, 9
Cholesterol content, of game meat, 151
Chronic wasting disease (CWD), 177
costs incurred by society from, 138
in deer, 32–33, 80, 83, 155, 172, 175, 226–227
in elk, 33, 80, 83, 155, 172, 175, 226–227
eradication and prevention activities, 33
fauna affected, 316
game ranching and, 154
geographic area affected, 316
social and economic impact of, 32–34

362 Disease Emergence and Resurgence: The Wildlife–Human Connection
cholera in waters of, 40
Coatimundi, rabies in, 164
Coccidioidomycosis
   fauna affected, 319
   geographic area affected, 319
   human disease, 13, 25
   in sea otters, 60–61
   travel-associated, 203
Cod worm, 31
Coffee berry disease, in biowarfare/bioterrorism, 257, 350
Collared peccaries
   game ranching, 152
   peccary meat, 166
   translocations of, 147
The Coming Plague: Newly Emerging Diseases in a World Out of Balance, 285
Commercial activities, 148–166
   international, 105–106
Common eider, 55
Companion animals
   acquisition of pathogens from wildlife, 93
   arthropod parasites of, 95–96
   bacillary angiomatosis and, 96
   bacterial diseases transmitted by, 93
   campylobacteriosis in, 94
   Capnocytophaga in, 94–95
   Cheyletiella in, 95–96
   chlamydiosis in, 94
   commercial trade in, 99, 152–153, 156–157
   cryptoccocosis in, 95
   cryptosporidiosis in, 95
   disease emergence and, 93–97
   immunocompetency and, 96–97
   diseases in, economic and social costs of, 136
   disease transmission to humans, 10, 30–31
   disease transmission to wildlife, 11, 30, 160
   echinococcosis in, 95
   feeding game meat to, 209
   giardiasis in, 95–96
   health hazards associated with, 93–96
   hookworms in, 96
   human wellness and, 97
   larva migrans in, 95–96
   leptospirosis in, 94
   Lyme disease in, 94, 96
   lymhocytic choriomeningitis virus in, 94
   melioidosis in, 94
   Mycobacterium marinum in, 94
   nursing home visits by, 96
   Pasteurella multocida in, 94–95
   percentage of households with pets, 93
   plague in, 94, 96
   pocket pets, 195
   rabies in, 94
   rat-bite fever in, 94
   ringworm in, 95
   Rocky Mountain spotted fever in, 94, 96
   roundworms in, 96
   salmonellosis in, 94
   scabies in, 95–96
   sporotrichosis in, 95
   tetanus in, 94
   toxoplasmosis in, 95–96
   tularemia in, 94–96
   viral diseases transmitted by, 93
   wildlife as pets, 12, 161–166, 168–171
   yersiniosis in, 94
Conjunctivitis, house finch, 77–78, 81–82, 172, 175–176
Contagions, 233
Contagious agalactia, in biowarfare/bioterrorism, 349
Contagious bovine pleuropneumonia, in biowarfare/bioterrorism, 255
Contagious equine metritis, in biowarfare/bioterrorism, 349
Containment, 103
Containment facilities, 135
Contaminated waters, 12, 37, 39, 199
   cholera in marine environment, 40
   contact with, 10, 15, 31, 85, 195
   cryptosporidiosis, 86, 89, 92
   diseased carcasses as bioweapons, 245
   Escherichia coli, 87
   ingestion of, 10, 31, 195
Contracaecum corderoi
   fauna affected, 320
   geographic area affected, 320
Coping with Diseases at Bird Feeders, 172
Coral
   black-band disease of, 42
   common and scientific names of, 335–336
   dark-spot disease of, 44
   hard, 41–42
   rapid wasting disease of, 44
   red-band disease of, 43
   scleractinian, 42–44
   soft, 41–42
   white-band disease of, 41, 43
   white plaque of, 44
   white pox disease of, 44
   yellow-band disease of, 43–44
Coral bleaching, 46–47
Coral disease, 321
Coral Health and Disease (book), 284
Coralline algal disease, 44–45
Coralline lethal orange disease (CLOD), 44–46
Coral reef communities, 41–47

Cormorants
- avian cholera in, 62
- domoic acid poisoning in, 49
- Newcastle disease virus in, 72–73

*Corynebacterium*, human disease from animal bites/scratches, 93, 197

*Corynebacterium diphtheriae*, see Diphtheria

Cougar jerky, 31, 91, 215, 222

*Countering Agricultural Bioterrorism*, 247

Cowdriosis, in biowarfare/bioterrorism, 254, 350

*Coxiella burnetti*, see Q fever

Coyotes
- human diseases from bites/scratches, 197
- mange in, 260–261
- tapeworm life cycle, 211, 213
- tapeworms in, 36
- translocations of, 156

Crabs
- domoic acid in, 49
- shell disease in, 53, 322

Crane, inclusion body disease in, 105

Crayfish plague
- fauna affected, 319
- geographic area affected, 319

*CRC Handbook Series in Zoonoses*, 280–281

Creutzfeldt-Jakob disease, new variant, 33, 85, 226

Crimean-Congo hemorrhagic fever, in biowarfare/bioterrorism, 250, 346

Crocodylidae
- crocodile meat, 165
- game ranching, 153–154, 156, 165
- as pets, 167

Cropping patterns, 105

Crows, West Nile fever in, 34, 37, 76, 81

Cruise ships, 193, 201

Crustaceans, marine, 47

*Cryptobia branchialis*
- fauna affected, 319
- geographic area affected, 319
- in tilapia, 71

Cryptococcosis, companion animals as sources of, 95

Cryptosporidiosis
- in biowarfare/bioterrorism, 247, 351
- companion animals as sources of, 95
- costs incurred by society from, 138
- fauna affected, 319
- foodborne, 86
- geographic area affected, 319
- waterborne, 88
- in Milwaukee, Wisconsin, 40, 106

Cutaneous fibroma, in deer, 224, 226

Cutaneous larva migrans, companion animals as sources of, 95–96

CWD, see Chronic wasting disease

Cyanobacteria, 43

Cyanobacterial blooms, 48

*Cyclospora cayetanensis*, foodborne, 86, 89

Cysticerci, 213

Cysticercosis
- in biowarfare/bioterrorism, 351–352
- in moose, 218, 221, 223

D

Dam construction, 99, 104–105

Damselfish neurofibromatosis, 50, 322

Dark-spot disease, of coral, 44

“Dark Winter,” 236

Databases, on-line
- fee-based, 291, 294
- free, 289–290, 293

Day care programs, 99

Deboning, 227

Deer
- anthrax in, 76
- bluetongue virus in, 214
- bovine tuberculosis in, 80, 83, 154–155, 172, 175, 224–225
- brain abscesses in, 224–225
- captive propagation and release for hunting, 145
- chronic wasting disease in, 32–33, 80, 83, 155, 172, 175, 226–227
- cutaneous fibroma in, 224, 226
- deer meat, 33, 151, 165, 215, 218, 228
- *Escherichia coli* O157:H7 in, 13, 31, 91, 215
- feeding by humans, 34, 172, 175
- game ranching, 33, 151–152, 154–155, 165
- hemorrhagic disease of, 226–227
- Johne’s disease in, 155
- leptospirosis in, 155
- liver flukes in, 218, 220–221, 223
- malignant catarrhal fever in, 154–155
- necrobacillosis in, 155
- pasteurellosis in, 155
- scours in, 155
- staphylococcal disease in, 31
- streptothricosis in, 198, 225
- translocations of, 141, 147
- yersiniosis in, 154–155

Deforestation, 99, 105

Demodectic mange, 218

Dengue fever, 29, 102

Department of Homeland Security, 243, 258

Departments of Natural Resources, 259

Dermatophilosis, in biowarfare/bioterrorism, 350
Dermatophilus conglobens, see Streptothricosis
Dermatophytosis, see Ringworm
Dermocystidium, in amphibians, 65
Dermo disease
fauna affected, 319
geographic area affected, 319
in oysters, 53
Dermosporidium
in amphibians, 65
fauna affected, 319
geographic area affected, 319
Desulfovibrio, 42
Developmental host, 36
Diamondback terrapin, 157
Diatoms, 104
Diclofenac, 321
Dinner, Pets, and Plagues by the Bucketful, 285
Dinoflagellates, 48–49, 87
Diphtheria, 106
Diphyllolothrium latum, 222
Direct contact, disease transmission by, 10, 31
Dirofilaria immitis, see Heartworm
Disarmament, 236
Disease carriers, 148
Disease control
infrastructure needs, 180
national wildlife health strategy, 180
regulatory needs, 174–180
Disease cycle, 14
Disease diagnosis, 132, 134
Disease ecology, 7–11, 14
Disease emergence
companion animals and, 93–97
concepts in, 21–26
defining disease, 21
evolutionary considerations, 24–25
factors contributing to, 97–107
foodborne diseases, 30–31, 84–92
in free-ranging wildlife, 30, 38–84, 179
in freshwater aquatic environments, 63–75
human factors in, 26–30, 99, 102–106
human-wildlife interfaces, 130–174
increased attention to, 22–23
in marine environment, 39–63
new challenges and opportunities, 22–23
pathogen factors in, 21–24, 98–101, see also Pathogens
perspectives on, 26–38, 83–84
steps in process, 98
in terrestrial environment, 75–84
toxins and, 48–49
wildlife and zoonoses, 30–38
zoonoses and, 30–31
Disease establishment, 98–99
Disease expansion, 98
Disease Information (report), 283
Disease prevention, 135
infrastructure needs, 180
national wildlife health strategy, 179
regulatory needs, 174–180
Diseases and Parasites of White-tailed Deer, 286
Diseases of Amphibians and Reptiles, 286
Diseases of Animals in Relation to Man, 280–281
Diseases of Aquatic Organisms, 290
Diseases of Man Acquired from his Pets, 280
Diseases of Marine Mammals, 286
Diseases of the Reptilia, 286
Diseases of Wildlife in Wyoming, 287
Diseases of Wild Waterfowl, 286
Diseases Transmitted from Animals to Man, 280–281
Disease surveillance, 30, 132, 135
Disease transmission
from humans to wildlife, 5–7, 11
from wildlife to humans, 5–7, 15
Disseminated neoplasia, in clams, 53, 322
Dogs
canine distemper in, 54, 242
domestic, 12, 30, see also Companion animals
feral, 54
wild, 260
Dogs, Zoonoses, and Public Health, 93, 280
Dog tapeworm, in rabbits, 218, 220, 223
Dolphin morbillivirus, 54–55
fauna affected, 313
geographic area affected, 313
Dolphins, 51–56, see also Marine mammals
immunoblastic malignant lymphoma in, 322
pulmonary carcinoma in, 322
Domestic animals, 301, see also Companion animals
agroterrorism, 247–249
animal disease programs, 132–135
animal wastes, 103–104
diseases in, economic and social costs of, 136, 138
diseases transmitted to humans by, 7
disease transfer between wild and domestic species, 242
West Nile virus in, 79
Domoic acid, 25, 49, 103
fauna affected, 321
geographic area affected, 321
Dothistroma needle blight, in biowarfare/bioterrorism, 257, 350
Dourine, in biowarfare/bioterrorism, 351
Doves, trichomoniasis in, 175, 218, 220, 222
Drinking water, 31, 84, 88
bottled, 88
water treatment, 84
Duck plague
  in biowarfare/bioterrorism, 242
  in captive-bred waterfowl, 156
  fauna affected, 313
  geographic area affected, 313
  in mallard ducks, 214
  in waterfowl, 71–72, 97, 158–159, 242

Ducks
  avian cholera in, 62
  domestic, 71
  game ranching, 153
  type E botulism in, 21
  Duck virus enteritis, see Duck plague
  Duck virus hepatitis
    in biowarfare/bioterrorism, 346
    susceptibility to, 103

Dysentery, in biowarfare/bioterrorism, 234

E

Eared grebes, mass mortality among, 75, 322

Eastern equine encephalitis
  in biowarfare/bioterrorism, 247, 256, 346
  fauna affected, 313
  geographic area affected, 313

Ebola virus
  in biowarfare/bioterrorism, 245, 346
  crossing species barriers, 100
  fauna affected, 313
  geographic area affected, 313
  in nonhuman primates, 162
  zoonoses-specific publications, 282

Echinococcosis, 16, see also Hydatid disease
  companion animals as sources of, 95

Echinoderms, common and scientific names of, 336

Eco-challenge athletes, 195

Ecological disturbances, 26–27, 99

Economic development, 104–105

Economics
  of ecotourism, 161
  of wildlife diseases, 131, 138

Ecosystem alterations, 1, 40

Ecosystem factors, 179

Ecosystem health, 131

Ecosystem stress, 83

Ecotourism, 5, 12, 83–84, 90, 130–131, 148, 154, 156, 160, 193
  economic returns, 161
  game meat consumption and, 209
  loving primates to death, 162–163

Egrets, salmonellosis in, 78

Egved disease, see Viral hemorrhagic septicemia

Ehrlichiosis, crossing species barriers, 101

Elands, rinderpest in, 76

Elderly, companion animal contacts, 96–97

Electronic publishing, 276, 278, 289

Elephant herpesvirus, 150
  fauna affected, 313
  geographic area affected, 313

Elephants, translocations of, 150

Elephant shrew, monkeypox in, 168

Elk
  bovine tuberculosis in, 172, 175, 225
  brucellosis in, 105, 172, 175, 225
  chronic wasting disease in, 33, 80, 83, 155, 172, 175, 226–227
  elk meat, 151, 215
  feeding by humans, 172, 174–175
  game ranching, 33, 151–152, 154
  translocations of, 141, 147

Elkhorn coral, 41

The Emergence of New Diseases, 285

Emerging diseases, see also Disease emergence
  defined, 21
  social and economic impacts of, 32–35

Emerging Infectious Diseases (journal), 23, 292

Encyclopedias, 288

Endangered species, jurisdiction and regulatory authorities for stewardship of, 259

Endemicity, 98

Enterobacter, human disease from animal bites/scratches, 197

Enterotoxins
  in biowarfare/bioterrorism, 246, 352
  human disease, 25

Environmental change, 99

Environmental quality, 131

Enzootic abortion of ewes, 349

Enzootic bovine leukosis, in biowarfare/bioterrorism, 346

Enzootic diseases, 5, 38

Epidemics
  cholera, 40
  historic publications on, 9
  “virgin soil epidemics,” 97

Epidemic typhus, in biowarfare/bioterrorism, 247

Epidemiological Bulletin, 292

Epizootic hematopoietic necrosis, in finfish, 70

Epizootic hemorrhagic disease
  in deer and antelope, 226–227
  fauna affected, 313
  geographic area affected, 313

Epizootic infectious anemia, in biowarfare/bioterrorism, 346

Epizootic lymphangitis, in biowarfare/bioterrorism, 350

Epizootics, historic publications on, 9

Epizootic ulcerative syndrome
  fauna affected, 319
in finfish, 50
geographic area affected, 319
Equine influenza, in biowarfare/bioterrorism, 346
Equine piroplasmosis, in biowarfare/bioterrorism, 351
Equine rhinopneumonitis, in biowarfare/bioterrorism, 346
Equine viral arteritis, in biowarfare/bioterrorism, 346
Eradication, of smallpox, 26
Ergot, in biowarfare/bioterrorism, 257, 351
Erysipeloid, 6
Erysipelothrix rhusiopathiae, see Erysipelas
Escherichia, human disease from animal bites/scratches, 197
Escherichia coli
enterohemorrhagic, 352
enterotoxigenic, 86, 89
foodborne, 103
Escherichia coli O157:H7 in biowarfare/bioterrorism, 246, 349
chronic sequelae of infection, 92
in deer meat, 13, 31, 91, 215
foodborne, 85–87, 89, 92
sources of human infections, 87
Escherichia vulneris
fauna affected, 317
geographic area affected, 317
Estuarine regions, 47–50
Etiologic agents, see Pathogens
European brown hare syndrome
fauna affected, 313
geographic area affected, 313
European cervid herpesvirus, 155
European foulbrood, in biowarfare/bioterrorism, 349
Eustrongylides, 222, 224
Eutrophication, 105
Extreme athletes, 195

F
Factories of Death, 234
Fascioloides magna, see Liver flukes
Fat content, of game meat, 151
Feathers, 153
Feedlots, 103–104
Feed station circuit, 172
Felids, canine distemper virus in, 83
Feline immunodeficiency virus
fauna affected, 313
geographic area affected, 313
Feline leukemia virus
fauna affected, 313
geographic area affected, 313
Feline panleucopaenia
in biological control of vertebrates, 261
in cats, 261
Ferrets, 94–95
Fetus, toxoplasmosis in, 96
Fibroma
cutaneous, in deer, 224, 226
in squirrels, 226
Fibropapillomatosis, in turtles, 51, 313
fauna affected, 313
geographic area affected, 313
Field dressing, 211
Field guides, 287–288
Field Guide to Wildlife Diseases—General Field Procedures and Diseases of Migratory Birds, 288
Field Manual of Wildlife Diseases—General Field Procedures and Diseases of Birds, 288
Field Manual of Wildlife Diseases in the Southeastern United States, 288
Filter feeders, 209
Finfish, see also Aquaculture
Asian tapeworm in, 69
bacterial kidney disease in, 71
black spot/grub in, 219
common and scientific names of, 336–338
diseases notifiable to OIE, 70
epizootic ulcerative syndrome in, 50
as food, 39, 228
food demands for, 140
freshwater, 68–71
foodborne diseases, 86–88
furunculosis in, 225
gyrodactylosis in, 71
herpesvirus in, 51
heterosporis in, 219
human disease from bites/scratches, 197
ich in, 218
infectious pancreatic necrosis virus in, 71
introductions, unauthorized, 71
iridovirus in, 47
jurisdiction and regulatory authorities for stewardship of, 259
lamprey scars, 213, 216
marine, 39, 47–51
mycobacteriosis in, 50
nodavirus in, 47
sportfishing, 142, 146
Streptococcus iniae in, 50
tumors of, 213, 216
thorny-headed worms in, 218
Finfish—Continued
  type E botulinum toxin in, 21–24, 31, 212
viral diseases of, 70
  white grub in, 219
  yellow grub in, 219
Fire blight, in biowarfare/bioterrorism, 257, 349
Fish, see also Aquaculture; Finfish; Shellfish
  aquarium, 94–95, 105, 166
  ornamental, 166
Fish and Fisheries Worldwide (database), 294
Fish and Wildlife Service, 259
Fish-cleaning stations, 211
Fish culture, 47
Fish Disease Diagnosis and Treatment, 286
Fish Diseases and Disorders, 286
Fish Diseases Commission (OIE), 71
Fish-handler's disease, 50
Fish hatchery, 47, 71, 142, 144, 146
  birds feeding at, 71
  specific-pathogen free, 142
Fish Health Policy (USFWS), 142
Fish health programs, 142, 144, 146
Fishing, 139
  fee-based, 130, 154–156
Flavobacterium, 51
Fleas
  of companion animals, 96, 195
  delivery system for biowarfare, 234
Flea-vectored diseases, 195
Flies, protecting carcass from, 210
Florida loon mortality, 322
Flyways, 102
Foodborne diseases, 199, 209–228, see also Game meat
  anisakiasis, 86–87, 89
  astrovirus, 86
  *Bacillus cereus*, 89
  bacterial, 84, 86
  in biowarfare/bioterrorism, 246
  botulism, 89, 215
  bovine spongiform encephalopathy, 85
  brucellosis, 84
  campylobacteriosis, 85–86, 92
  cholera, 86, 89
  chronic sequelae or disability with, 91–92
  *Clostridium perfringens*, 89
  “conditions/things” encountered, 216–228
  cryptosporidiosis, 86, 89, 92
  *Cyclospora*, 86, 89
  emergence of, 30–31
  emerging diseases, 84–92
  *Escherichia coli*, 103
  *Escherichia coli* O157:H7, 85–87, 89, 92
  fruits and vegetables, 88–89
  guidelines for meat consumption, 209–216
  hepatitis A, 87–89
  listeriosis, 85–86, 89, 92
  morbidity and mortality from, 84–85
  norovirus, 88–89
  Norwalk-like virus, 86–88
  parasitic, 84, 86–87
  perspectives on, 91
  prion diseases, 85–86
  risks of “going native,” 90–91
  rotavirus, 86
  salmonellosis, 85–86, 89, 92, 103
  seafood, 86–89, 104
  shigellosis, 89
  staphylococcal, 89
  streptococcal, 84
  toxoplasmosis, 85, 88, 92
  transitions and transgressions, 84–90
  trichinosis, 13, 84, 90–92, 215
  tuberculosis, 84
  tularemia, 88–89
  *Vibrio*, 86, 88
  viral, 84, 86
  yersiniosis, 85–86
Food practices, 99
Food processing, 103
Food wastes, ecotourism-related, 160
Food web, 41
Foot-and-mouth disease
  in biowarfare/bioterrorism, 251, 255, 257, 346
  costs incurred by society from, 138, 248
Fowl typhoid, in biowarfare/bioterrorism, 349
Foxes
  captive propagation and release for hunting, 145
  fox chasing, 156
  fox farming, 149
  mange in, 220
  rabies in, 83
  translocations of, 156
Fox squirrels, translocations of, 147
Francisella tularensis, see Tularemia
Free-ranging wildlife, 5, see also Human-wildlife interfaces
  disease emergence in, 38–84
  diseases in, economic and social costs of, 136–139
  disease surveillance in, 30
  disease transfer between wild and domestic species, 242
  information sources, 286–287
  jurisdiction and regulatory authorities for stewardship of, 259
  national wildlife health strategy, 179
  public ownership of, 136–139
Freshwater aquatic environment
  amphibians, 63–68
  disease emergence in, 63–75
  fish, 68–71
  waterbirds, 71–75
Frogs, see also Amphibians
  game ranching, 153
Frog virus-3, 64
Fruit bats, viruses carried by, 37
Fruits, foodborne diseases, 88–89
Fungal diseases
  biowarfare/bioterrorism agents, 350–351
  companion animals as sources of, 95
  fauna affected, 319
  game meat and, 227–228
  geographic area affected, 319
  human disease from animal bites/scratches, 197
  human disease from handling wildlife, 198
  pathogen characteristics, 16
  sources of human disease, 25
  travel-associated, 203
Fur farming, 149
Furunculosis
  fauna affected, 317
  in fish, 225
  geographic area affected, 317
Fusarium semitectum, see Necrotizing scute disease
Fusobacterium, human disease from animal bites/scratches, 197
Fusobacterium necrophorum, see Necrobacillosis

G
Galapagos Islands giant tortoise mortality, 322
Gambian rats, monkeypox in, 168–171, 177
Gambierdiscus toxicus, 87
Game farming, 148, 158–159
Game meat, 8, 10, 15, 31, 90–92, 130, 148–149, 152–153, 160–161, 195, 209–228, see also Foodborne diseases
  assessment of carcass
    external examination, 212–214
    internal examination, 213–217
  carcass handling and processing, 210–212
  characteristics of consumers in USA, 211
  “conditions/things” encountered, 216–228
  countries providing, 165
  deciding what to eat, 228
  demands for, 228
  economic value of, 160, 164
  fat and cholesterol content of, 151
  food, cultural, and social needs for, 209–211
  foodborne diseases, 88–89
  guidelines for consumption, 209–216
  in human diet, 166
  learning about local area, 209–210
  parasites encountered in, 216–222
  potential bacterial diseases, 222–225
  potential fungal diseases, 227–228
  potential prion diseases, 226–228
  potential toxin exposure, 228
  potential viral diseases, 224–226
  preserving and preparing for consumption, 211–212
  primary source of, 211
  role in diet, 211
  sporadic consumers of, 209
  Game ranching, 33, 130, 148–154, 160
  exotic species, 157
  mixed game and cattle ranches, 149
  Geese, 71
  avian cholera in, 224
  game ranching, 153
Geneva Convention, 240
Gerbils, 195
Giardiasis
  in aquatic rodents, 31
  in beavers, 37
  companion animals as sources of, 95–96
  fauna affected, 319
  geographic area affected, 319
Giardia waterborne, 37, 88
  zoonoses-specific publications, 282
Gibier, 160–161
Giraffes, rinderpest in, 76
Gizzard worms, in upland game birds, 218
Glanders, in biowarfare/bioterrorism, 234, 237, 245–246, 248, 256, 350
Global commerce, 201
Gloves, disposable, handling carcasses, 211, 227–228
Gnathostomiasis
  foodborne, 87
  travel-related, 195
Goat pox, in biowarfare/bioterrorism, 252, 255, 348
Golden lion tamarins, captive-bred, 178
Gorgonians, 42
Gorillas
  ecotourism and, 160
  human diseases in, 163
Gray squirrels
  fibromas on, 226
  translocations of, 150
Green pythons, ranavirus infections in, 81
Green sea urchin disease
  fauna affected, 319
  geographic area affected, 319
Green turtles, 51
Ground squirrels, tularemia in, 260–261
*The Grouse in Health and in Disease*, 277
Guillain-Barré syndrome, 92
Guinea pigs, 195
Gulls
- avian cholera in, 62
- type E botulism in, 21
Gumboro disease, see Infectious bursal disease
Guns, Germs, and Steel, 285
*Gymnodinium breve*, 49
Gyrodactylosis
- fauna affected, 320
- in finfish, 71
- geographic area affected, 320

**H**

HAB, see Harmful algal blooms
Habitat loss, 179
Hamsters, human disease from bites/scratches, 94–95, 195, 197
*Handbook of Diseases of Saskatchewan Wildlife*, 288
*Handbook of Trout and Salmon Diseases*, 286
*Handbook of Zoonoses*, 280
Handbooks, 288
Hantavirus, 13
- crossing species barriers, 101
- in rodent feces/urine, 15
Haplosporidiosis, in oysters, 52
Hard coral, 41–42
Harmful algal blooms (HAB), 48–49
Hatchery stock, 47
Health, overoptimistic expectations of, 26–27
Health advisories, game meat, 228
Heartwater, in biowarfare/bioterrorism, 254, 350
Heartworm
- fauna affected, 320
- geographic area affected, 320
- in wild canids, 160
- in wolves, 160
Heavy metals, 25
*Helicobacter*
- fauna affected, 317
- geographic area affected, 317
Helminths, 98
Hemolytic uremic syndrome, 92
Hemorrhagic disease
- of antelope, 226–227
- of deer, 226–227
Hemorrhagic fever with renal syndrome, in biowarfare/bioterrorism, 250, 347
Hemorrhagic septicemia, in biowarfare/bioterrorism, 350
Hendra virus, crossing species barriers, 37–38, 100
Hepatitis A virus, foodborne, 87–89
Herons, salmonellosis in, 78
Herpesvirus, 16
- in elephants, 150
- in finfish, 51
- human disease from animal bites/scratches, 197
*Heterosporis*
- fauna affected, 320
- in fish, 219
- geographic area affected, 320
- in yellow perch, 68
Hiking, 5, 8
Hippocrates, 9, 11
Histomoniasis, in upland game birds, 218, 222
Histoplasmosis, 16
- human disease, 25
- routes for human exposure to, 15
- travel-associated, 203
Historic literature, 9–10, 276–277
*History of Animal Plagues of North America*, 276
HIV/AIDS, 5, 7, 22, 29, 38, 92, 97, 136, 193
- crossing species barriers, 100
- human disease from handling wildlife, 198
- pandemic, 160
- people living with in 2002, 32
- social impact of, 32
Hog cholera
- in biowarfare/bioterrorism, 251
- fauna affected, 313
- geographic area affected, 313
- in wild boar, 80
Hookworms, companion animals as sources of, 96
Horse pox, in biowarfare/bioterrorism, 347
Horses
- agroterrorism targets, 248
- as pets, 94–95
Hosts, 11, 14
- amplification, 37
- coadaptation of hosts and pathogens, 25
- dead-end, 11
- developmental, 36
- intermediate, 98
- reservoir, 47, 98, 168–169
*The Hot Zone*, 285
Hounds, 156
House finch conjunctivitis, 77–78, 81–82, 172, 175–176
Human behavior, 102–103
Human demographics, 102
Human disease programs, 132–135
Human diseases, economic and social costs of, 136, 138
Humanitarian activities, in developing countries, 13
Index case, 83
Inclusion body disease, in cranes, 105
Indexing services, 289–294
Industrialization, 99
Infectious and Parasitic Diseases of Wild Birds, 283, 286
Infectious bovine rhinotracheitis
in biowarfare/bioterrorism, 347
in bison, 155
Infectious bursal disease
in biowarfare/bioterrorism, 347
fauna affected, 314
gene affected, 314
in marine birds, 62–63
Infectious diseases
in 21st century, 28–29
eradication of, 26–27
global mortality from, 28–29
human mortality in USA, 26
Infectious Diseases of Wildlife: Detection, Diagnosis and Management, 287
Infectious Diseases of Wild Mammals, 283, 286
Infectious hematopoietic necrosis, in finfish, 70
Infectious keratoconjunctivitis
fauna affected, 317
gene affected, 317
in wildlife, 80
Infectious pancreatic necrosis
fauna affected, 314
in finfish, 71
gene affected, 314
Infectious pustular vulvovaginitis, in biowarfare/bioterrorism, 347
Infectious salmon anemia, 50
fauna affected, 314
gene affected, 314
Influenza
avian, see Avian influenza
in biowarfare/bioterrorism, 255
crossing species barriers, 100
fauna affected, 314
gene recombination in virus, 36
gene affected, 314
in marine mammals, 55–57
in migratory birds, 36
in shorebirds, 36
Information brokerage services, 293
Information sources, 275–295
abstracting services, 289–294
abundance of, 16
biowarfare/bioterrorism, 238–239
books, 288–289
changes in style and content over time, 276–279
field guides, 287–288
free-ranging wildlife, 286–287
general compendiums on zoonoses, 280–281
handling and processing of wild game, 210
historic literature, 9–10, 276–277
indexing services, 289–294
journals (periodicals), 278–279, 289, 292, 295
news media, 23, 293
pathfinding, 287–295
pathogens, 276
popular literature, 23, 285
pre-1980 books, 277
publications of symposium and professional meetings, 281, 284
travel medicine, 202–203
wildlife disease literature, 283–290
zoonoses, 276–283
Ingenta (database), 291, 293
Interlibrary loan, 293
Intermediate hosts, 98
International Bird Rescue Research Center, 173
International Journal of Zoonoses, 292
International Society of Travel Medicine, 202
Intoxication, in vultures, 76, 81
Introductions, 99
Invertebrates, marine, 45
Investigation and Management of Disease in Wild Animals, 286
Iridovirus, in finfish, 47

Japanese encephalitis, in biowarfare/bioterrorism, 347
Jerky, 91, 215, 222
Johne’s disease
  in biowarfare/bioterrorism, 350
  in bison, 155
  in deer, 155
Journal of des Scavans, 279
Journal of Aquatic Animal Health, 290
Journal of Fish Diseases, 290
The Journal of Infectious Diseases, 292
Journal of Wildlife Diseases, 283, 290
Journal of Zoo and Wildlife Medicine, 290
Juvenile oyster disease, 52–53, 322

Kangaroo meat, 165
Karnal bunt, in biowarfare/bioterrorism, 257, 351
Keywords, 289
Killer Germs: Rogue Diseases of the Twenty-First Century, 285
The Killers All Around, 285
Koi herpesvirus, 69
  fauna affected, 314
  geographic area affected, 314
Kudu, rinderpest in, 76
Kuru, 226
Kyasamur forest disease, in biowarfare/bioterrorism, 250, 348

Laboratory-acquired infections, 10, 15
Labyrinthula, 41, 45
Lacazia loboi, see Lobomycosis
Lamprey scars, 213, 216
Landscape changes, 1, 7, 26–27, 30, 83, 99, 104–106, 129, 174
Land use, 104–105
Largemouth bass virus, 69
Larva migrans, 218
  companion animals as sources of, 95–96
Lassa virus, in biowarfare/bioterrorism, 245, 347
Lead poisoning, 25
  in birds feeding on corn, 103
  in Canada geese, 214
Lead shot, 211
Learned journals, 278–279
Leather, see Animal hides
Leeches, in amphibians, 65
Leishmaniasis, in biowarfare/bioterrorism, 351
Leporine dysautonomia, 322
Leptospirosis
  in biowarfare/bioterrorism, 350
  changing patterns of, 201
  companion animals as sources of, 94
  contaminated water, 12
  crossing species barriers, 101
  in deer, 155
  fauna affected, 317
  geographic area affected, 200, 317
  human disease from animal bites/scratches, 197
  in marine mammals, 6, 55–56, 58
  travel-related, 195
Lesser scap, brevetoxin poisoning in, 49
Lexis/Nexis Academic Universe, 295
Leyogonimus polyoon, 75
Library catalog, 289
Library of Congress subject headings, 289
Library resources, see Information sources
Lice, 59
  in harvested wildlife, 216
Limberneck, 75
Lindsay Wildlife Museum, 173
Lions
  canine distemper virus in, 76, 80, 83, 242
  human diseases from bites/scratches, 197
  tuberculosis in, 80
Listeriosis
  fauna affected, 317
  foodborne, 85–86, 89, 92
  geographic area affected, 317
Literature guide, 287–295
Liver flukes, in deer, 218, 220–221, 223
Livestock, 13, see also Agroterrorism
Livestock operations, 105
Lizards
  commercial production of, 156
  human disease from bites/scratches, 197
Lobomycosis
  fauna affected, 319
  geographic area affected, 319
  in marine mammals, 56, 59
Lobo’s disease, see Lobomycosis
Lobsters, shell disease in, 53, 322
Loggerhead turtles, 51
Long-tailed ducks, adenovirus in, 63
Lumpy skin disease, in biowarfare/bioterrorism, 253, 255, 347
Lyme disease
  companion animals as sources of, 94, 96
deforestation/reforestation and, 105
  fauna affected, 317
  geographic area affected, 317
  human disease, 13, 25
  maintenance of tick populations, 36
Lymphocytic choriomeningitis virus
  companion animals as sources of, 94
  human disease from animal bites/scratches, 197

M
Mad cow disease, 16, 247
Maedi-visna, in biowarfare/bioterrorism, 347
Malformations, in amphibians, 65, 67
  fauna affected, 321
  geographic area affected, 321
Malignant catarrhal fever
  in biowarfare/bioterrorism, 347
  in bison, 154–155
  in captive-bred ruminants, 105–106
  in deer, 154–155
  fauna affected, 314
  geographic area affected, 314
Mallard ducks
  captive propagation and release for hunting, 143, 145, 158–159
  duck plague in, 214
Mammals, 38
  captive propagation and release for hunting, 145
  common and scientific names of, 338–343
  marine, see Marine mammals
terrestrial, 80, 83–84
  translocations of, 146–148
West Nile virus in, 75–76
Manatees
  brevetoxin poisoning in, 49
  brucellosis in, 56
  tuberculosis in, 58
Mange
  in biological control of vertebrates, 261
  in biowarfare/bioterrorism, 352
  in coyotes, 260–261
  fauna affected, 320
  geographic area affected, 320
  in harvested animals, 216
  in squirrels, 218, 220
  in wolves, 260
Manual of Common Parasites, Diseases and Anomalies of Wildlife in Ontario, 288
Manual of Common Wildlife Diseases in Colorado, 288
Marburg virus
  in biowarfare/bioterrorism, 245, 347
crossing species barriers, 100
  fauna affected, 314
  geographic area affected, 314
  zoonoses-specific publications, 282
Marek’s disease, in biowarfare/bioterrorism, 347
Mariculture, 47
Marine birds, 55–63
  avian cholera in, 55, 62
  infectious bursal disease in, 62–63
Marine environment
  cholera and, 40
  coral reef communities, 41–47
disease emergence in, 39–63
  marine birds, 55–63
  marine fish, 39, 47–51, 259
  marine mammals, 51–59
  plant communities, 39–41
  shellfish, 39, 47–53
turtles, 51
The Marine Mammal Center, 173
Marine mammals, 51–56
  bacterial diseases in, 56, 58–59
  brucellosis in, 55–56, 58
  calicivirus in, 56–57
canine distemper virus in, 54, 242
erysipelothrix in, 56, 58, 198
  fungal diseases in, 56, 59
  influenza virus in, 55–57
jurisdiction and regulatory authorities for stewardship of, 259
leptospirosis in, 55–56, 58
lobo_mykosis in, 56, 59
  melioidosis in, 198
  morbillivirus in, 54–55
mycobacterial disease in, 56
mycoplasmosis in, 56, 58, 198
  papillomavirus in, 55
  parasitic diseases of, 56, 59
  poxvirus in, 56–57
Q fever in, 56, 59
rickettsial diseases in, 56, 59
  salmonellosis in, 56, 59
  sea otters and infectious diseases, 60–61
  trichinosis in, 56, 59
  tuberculosis in, 58
  vibriosis in, 56, 58–59
  viral diseases in, 56–57
  zoonoses and, 57–59
Marine Wildlife Veterinary Care & Research Center, 173
Market hunting, 139
Martelliosis, in biowarfare/bioterrorism, 351
Masked palm civet cats, 164
Mass mortality, avian, 38
Measles
  fauna affected, 314
  geographic area affected, 314
  in humans, 106
  in nonhuman primates, 84, 163
Meat, see Game meat
Medicine
  medicinals from wildlife, 152–153, 156
  modern medicine, 99, 103
  “one medicine” concept, 131, 174
Medline (database), 289, 293
Meliodosis
  in biowarfare/bioterrorism, 246, 256, 350
  companion animals as sources of, 94
  human disease from handling wildlife, 198
  in marine mammals, 198
Menhaden, skin ulcers in, 48
*The Merck Veterinary Manual*, 288
Mercury poisoning, 25
Metazoan parasites, pathogen characteristics, 16
Mice
  capillariasis in, 261
  human disease from bites/scratches, 197
Microbes, 7
*Micrococcus*, human disease from animal bites/scratches, 197
*Microsporum*, see Ringworm
Migratory birds
  chlamydiosis in, 31
  dependence on wetlands, 102
  human behavior and, 102
  influenza virus in, 36
  jurisdiction and regulatory authorities for stewardship of, 259
  reservoirs for *Campylobacter*, 87
  spread of disease by, 37
  West Nile virus in, 37
Mikrocytosis
  in biowarfare/bioterrorism, 351
  fauna affected, 320
  geographic area affected, 320
  in oysters, 53
Mink, game ranching, 149
Mink spongiform encephalopathy, 226
*Mirage of Health*, 277
Mites, in harvested wildlife, 216
Modern medicine, 99, 103
Mollusks, 104
  marine, 47
Monkeypox, 164, 168–171
  animal hosts, 169
  in biowarfare/bioterrorism, 256, 347
  crossing species barriers, 101
  disease advancement, 168, 170
  early disease emergence, 168
  in elephant shrew, 168
  in Gambian rat, 168–171
  human disease from animal bites/scratches, 197
  human disease from handling wildlife, 198
  in humans, 168
  in porcupines, 170–171
  in prairie dogs, 166, 169, 197–198
  reservoirs and vectors, 168–170
  in squirrels, 168–171
  USA experience, 169
Monkeys, 156
  Monk seal morbillivirus-WA
    fauna affected, 314
    geographic area affected, 314
Moose
  cysticercosis in, 218, 221, 223
  moose meat, 164, 166, 218, 220, 223
  translocations of, 147
Morbidity, 71
*Morbidity and Mortality Weekly Report*, 283
Morbillivirus, in marine mammal, 54–55
*Moritella marina*
  fauna affected, 317
  geographic area affected, 317
Mosquitoes
  abatement activities, 35
  in Hawaii, 98
  mosquito-vectored diseases, 31, 105, 195
  Mountain goats, translocations of, 147
  Mountain gorilla, 84
  Mousepox virus, 260
  Mule deer, adenovirus hemorrhagic disease in, 76, 80
  Mules, 244
    agroterrorism targets, 248
  Multinucleated spore unknown
    in biowarfare/bioterrorism, 351
    fauna affected, 319
    geographic area affected, 319
    in oysters, 52
  Muntjac meat, 166
  Musk, 151
  Muskrats, tularemia in, 31, 225
Mycobacteriosis, 6
  fauna affected, 317
  in finfish, 50
  geographic area affected, 317
  in marine mammals, 56
  zoonoses-specific publications, 282
*Mycobacterium avium*, see Avian tuberculosis;
Johne’s disease
*Mycobacterium bovis*, see Tuberculosis, bovine
*Mycobacterium marinum*, 50
companion animals as sources of, 94
*Mycobacterium tuberculosis*, see Tuberculosis
*Mycoplasma agassizii*, 78
*Mycoplasma conjunctivitis*
fauna affected, 317
geographic area affected, 317
*Mycoplasma galliceppticum*, see House finch conjunctivitis
*Mycoplasma hoacerebrale*, 58
*Mycoplasmosis*
in biowarfare/bioterrorism, 349
in marine mammals, 56, 58, 198
*Mycotoxicosis*
in birds, 105
fauna affected, 321
geographic area affected, 321
in sandhill cranes, 76
*Mysis*
in biowarfare/bioterrorism, 254, 352
in mammals, 218
*Moxobolus cerebralis*, see Whirling disease
*Myxomatosis*
in biological control of vertebrates, 261
in biowarfare/bioterrorism, 347
fauna affected, 314
geographic area affected, 314
in rabbits, 24, 261
*Myxomatosis* (book), 277

N

*Naegleria australiensis*, in biowarfare/bioterrorism, 351
Nairobi sheep disease, in biowarfare/bioterrorism, 347
National Center for Infectious Diseases Web site, 202
National Oceanographic and Atmospheric Administration, 259
National Response Plan, 258
National Wildlife Health Center (NWHC), 133–135, 262–263
Web site, 287
National wildlife health strategy, 178–179
for captive-propagated wildlife, 178–179
disease prevention, 179
for free-ranging wildlife, 179
*Natural History of Infectious Disease*, 277
*Natural Nidality of Transmissible Diseases*, 277
*Nature* (journal), 283
*Necrobacillosis*
in bison, 155
in deer, 155
*Necrotizing enteritis*
fauna affected, 317
geographic area affected, 317
*Necrotizing acute disease*, 78
fauna affected, 319
geographic area affected, 319
*Nematodes*, in sea otters, 61
*Nest boxes*, 172
*Neurovisceral toxic syndrome*, 104
Newcastle disease
in biowarfare/bioterrorism, 242, 252, 255, 257, 348
in birds, 242
costs incurred by society from, 138
fauna affected, 314
government area affected, 314
information sources, 284
routes for human exposure to, 15
velogenic virus, 72
in waterbirds, 71–73
*New England Journal of Medicine*, 283
New Jersey Atlantic brant mortality, 322
*The New Killer Diseases*, 285
News media, 23, 293
Newspapers, 293, 295
News reader service, 293–294
Newts, see Amphibians
*Nipah virus*
in biowarfare/bioterrorism, 250, 347
crossing species barriers, 37–38, 101
*Nitzschia pungens*, 104
*Noninfectious Diseases of Wildlife*, 283, 286
Norovirus, foodborne, 88–89
North American Parasitic Zoonoses, 281
Norwalk-like virus, foodborne, 86–88
Nosemosis of bees, 351
Nosocomial infections, 103
Nursing homes, visits by companion animals, 96
Nutria meat, 165
*NWHC, see National Wildlife Health Center
nyama, 160–161

O

Obstructive rhinitis, in turtles, 51
Ocean, see Marine environment
Office International des Epizooties (OIE), 287
finfish diseases notifiable to, 70
Fish Disease Commission, 71
list A diseases, 244, 255
list B diseases, 244, 256
OIE, see Office International des Épizooties
OIE Scientific and Technical Review, 292
Oil spill, 25, 166–167
Onchorhynchus masou virus disease
in biowarfare/bioterrorism, 347
in finfish, 70
“One medicine” concept, 131, 174
On-line literature, 276
On-line resources, 289
Ophidian paramyxovirus
fauna affected, 314
geographic area affected, 314
Opossums, human disease from bites/scratches, 197
Ornamental fish, 166
Ornithosis, 6, 12, 16, see also Psittacosis
in biowarfare/bioterrorism, 244, 246, 254, 349
human disease from handling wildlife, 198
in waterfowl, 198
Oscillatoria, 43
Ostrich
game ranching, 152
ostrich meat, 151, 165
Outbreak Alert: Responding to the Increasing Threat of Infectious Diseases, 285
Outdoor recreation, 5, 8
An Outline of Zoonoses, 281
Ovine pulmonary adenomatosis, in biowarfare/bioterrorism, 347
Oysters, 47
dermo disease in, 53
juvenile oyster disease in, 52–53, 322
microcytosis in, 53
multinucleated spore unknown disease in, 52
Parasites and Diseases of Wild Birds in Florida, 287
Parasites of North American Fishes, 286
Parasitic diseases
biowarfare/bioterrorism agents, 351–352
companion animals as sources of, 95
crossing species barriers, 101
fauna affected, 320
foodborne, 84, 86–87
game meat and, 216–222
geographic area affected, 320
of harvested wildlife
external parasites, 216–221
internal parasites, 219
in nonhuman primates, 163
sources of human disease, 25
travel-related, 195
Parasitic Diseases of Wild Mammals, 283, 286
Paratuberculosis, in biowarfare/bioterrorism, 350
Paratyphus, in biowarfare/bioterrorism, 234
Parinaud’s oculoglandular syndrome, 13
Parr, 71
Parrotfish, 44
Parrots, as pets, 166
A Partial Bibliography on Duck Plague, 290
A Partly Annotated Bibliography on Infections, Parasites, and Diseases of African Wild Animals, 290
Partridges
captive propagation and release for hunting, 140, 145
fee-based hunting of, 154
game ranching, 152
histomoniasis in, 222
Pasteurella multocida, see Avian cholera
Pasteurellosis
from animal bites, 93–95
in bison, 155
in deer, 155
human disease from animal bites/scratches, 197
routes for human exposure to, 15
Pathfinder, 288
Pathfinding, 287–295
search methods, 288–295
starting the search, 287–288
Pathogens, 5, 14, 98–101
adaptation and change, 99, 106, 164
agents requiring government approval for research on, 345
biowarfare/bioterrorism agents, 231–265, 346–352
coadaptation of hosts and pathogens, 25
crossing species barriers, 30, 37–38, 83–84, 99–101, 131
factors in disease emergence, 21–24
global dissemination of, 85
information sources, 276
introduction into new host population, 97
movement between captive propagation facilities and surroundings, 140, 143
pathogen characteristics, 16
survival, proliferation, and transmission of, 98–100
virulence of, 25
PAWS Wildlife Center, 173
Peanut farming, 105
Pelicans
domoic acid poisoning in, 49
type C botulism in, 21
Penaeid shrimp, 104
Penguins
avian cholera in, 62
infectious bursal disease in, 62
Perkinosis, see also Dermo disease
in biowarfare/bioterrorism, 351
Perkinsus-like infection
in amphibians, 65
fauna affected, 320
geographic area affected, 320
Peste de petits ruminants, in biowarfare/bioterrorism, 255, 257, 347
Pesticides, 103
human poisoning, 25
Pets, see Companion animals
Pfiesteria, 48–49
fauna affected, 321
geographic area affected, 321
Pheasants
captive propagation and release for hunting, 139, 145
fee-based hunting of, 154
game ranching, 152
tracheal worms in, 220, 222
translocations of, 141
Philosophical Transactions, 279
Phocine distemper virus, 54–55
Phocine herpesvirus
fauna affected, 314
geographic area affected, 314
Phocine morbillivirus
fauna affected, 314
geographic area affected, 314
Phormidium corallyticum, 42
Pigeons
feeding of, 172
trichomoniasis in, 76, 175, 218
Pig frog ranavirus, 64
Pilchard herpesviral disease, 51
fauna affected, 314
geographic area affected, 314
Pilot whale morbillivirus
fauna affected, 314
geographic area affected, 314
Pine martens, translocations of, 147
Pinnipeds, 51–59
Piscirickettsiosis
fauna affected, 319
geographic area affected, 319
in salmonids, 51
Plague, 6, 83
aerosol transmission of, 234
in biowarfare/bioterrorism, 234, 236–237, 244–245, 256, 258, 350
companion animals as sources of, 94, 96
ecology of, 234–235
epidemics of, 28
fauna affected, 318
geographic area affected, 318
pandemics of, 234
in prairie dogs, 31, 76, 80
research on, 244
zoones-specific publications, 282
Plagues and Peoples, 277
Plants
common and scientific names of, 343
marine communities, 39–41
Plasmodium relictum, see Avian malaria
Pneumonia, in turtles, 51
Pocket pets, 195
Polar bears, 56, 58
bear meat, 59
Polio
fauna affected, 315
geographic area affected, 315
in nonhuman primates, 163
Polymorphus, 60
Popular literature, 23, 285
Porcine enterovirus, in biowarfare/bioterrorism, 253, 257
Porcine reproductive and respiratory syndrome, in biowarfare/bioterrorism, 253, 347
Porcupines, monkeypox in, 170–171
Pork, 84
Porpoise morbillivirus, 54–55
fauna affected, 315
geographic area affected, 315
Porpoises, see Marine mammals
Posthodiplostomum minimum, see White grub
Poultry
avian cholera in, 55, 242
large-scale production operations, 103, 105
Newcastle disease in, 242
salmonellosis in, 78
Poxvirus
in birds, 226
in marine mammals, 56–57
Prairie dogs
monkeypox in, 166, 169, 197–198
as pets, 177
Prairie dogs—Continued
   plague in, 31, 76, 80
   translocations of, 147
   tularemia in, 166
*Presidential Decision Directive on Emerging Infectious Diseases*, 23
Pre-travel counseling, 203
*Preventing Emerging Infectious Diseases: A Strategy for the 21st Century*, 23
Primary amebic meningoencephalitis, in biowarfare/bioterrorism, 351
PrimateLit (database), 293
Primates, nonhuman, *see* Nonhuman primates
Prion diseases
   biowarfare/bioterrorism agents, 348–349
   crossing species barriers, 101
   fauna affected, 316
   foodborne, 85–86
   game meat and, 226–228
   geographic area affected, 316
   pathogen characteristics, 16
   sources of human disease, 25
Professional societies, 281, 284
*Project BioShield*, 243
ProMed-mail, 283
Pronghorn, translocations of, 147
Propagation, captive, *see* Captive-propagated wildlife
*Protecting the Nation's Health in an Era of Globalization: CDC's Global Infectious Disease Strategy*, 23
*Protozoan*, human disease from animal bites/scratches, 197
Protozoal diseases
   biowarfare/bioterrorism agents, 351
   fauna affected, 316
   geographic area affected, 319
   pathogen characteristics, 16
   sources of human disease, 25
Protozoal encephalitis, in sea otters, 60
*Pseudomonas*, human disease from animal bites/scratches, 197
*Pseudonitzschia australis*, 49
Pseudorabies, in biowarfare/bioterrorism, 253, 347
*Pseudoterranova*, 86
Psittacine beak and feather disease, 150
Psittacosis, 16, 195, *see also* Ornithosis
   information sources, 284
Public domain, 154
Public health measures, breakdown in, 99, 106
Published information, *see* Information sources
Publishers’ catalogs, 289
PubMed (database), 289
Pullorum disease, in biowarfare/bioterrorism, 350
Pulmonary carcinoma, in dolphins, 322

Q

Q fever
   in biowarfare/bioterrorism, 246, 350
   fauna affected, 318
   geographic area affected, 318
   human disease, 25
   in marine mammals, 56, 59
Quahog parasitic unknown, 52
   fauna affected, 320
   geographic area affected, 320
Quail
   captive propagation and release for hunting, 145
   egg production, 165
   fee-based hunting of, 154
   game ranching, 152
   quail meat, 165
Quarantine, for translocations, 177
*Quarterly Wildlife Mortality Report*, 290

R

Rabbit hemorrhagic disease, 24, 76, 80
   in biological control of vertebrates, 261
   in biowarfare/bioterrorism, 347
   fauna affected, 315
   geographic area affected, 315
Rabbits
   bot flies in, 220
   captive propagation and release for hunting, 145
   dog tapeworm in, 218, 220, 223
   game ranching, 149
   myiasis in, 218
   myxomatosis in, 24, 261
   as pets, 94–95
   rabbit hemorrhagic disease in, 24, 261
   rabbit meat, 165, 218
   Shope's fibroma in, 226
   tapeworm life cycle, 211, 213
   translocations of, 147, 150
   tularemia in, 13, 31, 150, 225
Rabies, 16, 83, 301
   in bats, 13, 31, 195
      nonvampire, 7
   in biowarfare/bioterrorism, 253, 348
   in coatimundi, 164
   in companion animals, 93
   disease ecology, 7
   fauna affected, 315
   in foxes, 83
   geographic area affected, 315
   history, 7
   human disease, 25
      from animal bites/scratches, 197
      information sources, 284
in pet wildlife, 164
in raccoons, 80, 83, 105, 150
routes for human exposure to, 15
in skunks, 83, 164
viral adaptation and change, 106
zoonoses-specific publications, 282
Raccoons
Baylisascaris in, 6, 218
captive propagation and release for hunting, 145
rabies in, 80, 83, 105, 150
raccoon meat, 218
thorny-headed worms in, 218
translocations of, 150
Rainbow trout
bacterial kidney disease in, 71
farmed, 47
gyrodactylosis in, 71
translocations of, 150
viral hemorrhagic septicemia in, 47
whirling disease in, 68–69, 105, 150
Rajneeshee cult, 241
Ranavirus
in amphibians, 63–67
fauna affected, 315
geographic area affected, 315
in snakes, 81
Rapid wasting disease, of coral, 44
The Raptor Center, 173
Raptors, West Nile fever in, 172
Rat-bite fever, companion animals as sources of, 94
Rats
human disease from bites/scratches, 197
sarcocystis in, 261
Rats, Lice, and History, 277
Reality television, 195
Red-band disease, of coral, 43
Red deer
European cervid herpesvirus in, 155
parapox in, 155
Red ear slider, 157
Red fox, tapeworms in, 36
Red neck disease, in turtles, 104
Red sea bream iridoviral disease, 47
fauna affected, 315
geographic area affected, 315
Red tides, 39, 48–49
Redwood Creek ranavirus, 64
fauna affected, 315
geographic area affected, 315
Reef fish, 87
Reemerging disease, 21
Reference materials, see Information sources
Reforestation, 104–105
Regional Disease Emergency Operations Program, 133
Regulations, disease control in wildlife, 174–180
Reindeer
game ranching, 152, 165
reindeer meat, 165, 220
Renal adenoma, in dolphins, 322
Renibacterium salmoninarum, see Bacterial kidney disease
Reptiles
commercial production of, 156
common and scientific names of, 343–344
disease emergence in, 83
as pets, 166–167, 172
salmonellosis in, 166, 195
terrestrial, 81
translocations of, 148
Reservoir host, 47, 98, 168–169
Respiratory disease, in nonhuman primates, 163
The Restless Tide: The Persistent Challenge of the Microbial World, 285
Ribeiroia
in amphibians, 65
fauna affected, 320
geographic area affected, 320
Rice breast disease, see Sarcosporidiosis
Ricin, in biowarfare/bioterrorism, 246, 352
Rickettsial diseases
in biowarfare/bioterrorism, 247, 350
crossing species barriers, 101
fauna affected, 318–319
in fish, 51
geographic area affected, 318–319
pathogen characteristics, 16
Rift Valley fever
Aswan Dam construction and, 104–105
in biowarfare/bioterrorism, 251, 255–256, 348
fauna affected, 315
geographic area affected, 315
Rinderpest
in African mammals, 76
in biowarfare/bioterrorism, 242, 251, 255, 257, 348
Ringworm, 214, 228
companion animals as sources of, 95
River otter, translocations of, 147
Rocky Mountain spotted fever, 16
in biowarfare/bioterrorism, 350
companion animals as sources of, 94, 96
human disease, 25
zoonoses-specific publications, 282
Rodents
aquatic, giardiasis in, 31
hantavirus in feces/urine, 15
Rotavirus, foodborne, 86
Roundworms
  companion animals as sources of, 96
  in fish, 22
  in harvested wildlife, 217
  in snowy egret, 224
Royal Society of England, 278
Ruminants, 106
Russian spring-summer meningoencephalitis, in biowarfare/bioterrorism, 250, 348

S
Salamanders, see Amphibians
Salmon
  aquaculture, 47
  gyrodactylosis in, 71
  infectious salmon anemia virus in, 50
Salmonella
  antibiotic-resistant, 85
  serotypes of, 12, 30
Salmonellosis, 16, 30
  in biowarfare/bioterrorism, 234, 237, 241, 246, 350
  in birds, 78, 195
  companion animals as sources of, 94
  fauna affected, 317
  foodborne, 85–86, 89, 92, 103
  geographic area affected, 317
  human disease from handling wildlife, 198
  in iguanas, 166, 198
  in marine mammals, 56, 59
  in reptiles, 166, 195
  in songbirds, 172, 175
  in turtles, 6, 12, 157, 198
Salmonids
  piscirichettsiosis in, 51
  viral hemorrhagic septicemia of, 47
Salmon sarcoma virus
  fauna affected, 315
  geographic area affected, 315
Saltwater fish, 71
Sandhill cranes
  Campylobacter reservoirs, 87
  mycotoxicosis in, 76, 228
Sanitation, 106
San Joaquin Valley fever, 61
San Miguel sea lion virus, 57
Saprolegniasis
  in amphibians, 64
  fauna affected, 319
  geographic area affected, 319
Sarcocystis
  in biological control of vertebrates, 261
  fauna affected, 320
  geographic area affected, 320
  in rats, 261
  in sea otters, 60
Sarcotic mange, 76, 216, 218, 220
Sarcosporidiosis, in waterfowl, 218, 220–221
Sarin, 243
SARS, see Severe acute respiratory syndrome
Sausage, game meat, 215, 222
Saxitoxin, 25
Scabies
  companion animals as sources of, 95–96
  in nonhuman primates, 163
Scallops, 41
Scavengers, 139
Schistosomiasis
  travel-related, 11
  zoonoses-specific publications, 282
Science (journal), 283
Science News, 283
Scientific journals, 289, 292, 295
  development of, 278–279
  table of contents of, 291
Scientific literature, 9–10, 275–295, see also Information sources
  changes in style and content over time, 276–279
Scientific names, 332–344
Scientific research, impact of bioterrorism on conduct of, 244
Scientific symposium, publications arising from, 281, 284
Scleractinian coral, 42–44
Sclerotinia stem rot, in biowarfare/bioterrorism, 257, 351
Scours
  in bison, 155
  in deer, 155
Scrapie, 226
  in biowarfare/bioterrorism, 349
Scrombroid poisoning, 87
SCWDS Briefs, 290
Seabirds, 63
Sea fan disease, 45
Seafood, foodborne diseases of, 86–89, 104
Seagrass communities, 39–41
Seagrass wasting disease, 41
Seal finger, 58, 198
Sea lions, 51–56, see also Marine mammals
Seals, 51–56, see also Marine mammals
  contact with terrestrial carnivores, 54–55
  human disease from bites/scratches, 197
Sea otters, see also Marine mammals
  acanthocephalasis in, 60, 221
  coccidioidomycosis in, 60–61
  infectious diseases in, 55, 60–61
  nematodes in, 61
protozoal encephalitis in, 60
*Sarcocystis neurona* in, 60
toxoplasmosis in, 60–61
Search engines, 16, 289
Sea turtles, 51
commercial production of, 157
Sea urchin disease, 45, 322
Sea urchins, 41
Serotypes, *Salmonella*, 12, 30
*Serratia*, human disease from animal bites/scratches, 197
Severe acute respiratory syndrome (SARS), 22, 29, 105, 136, 160–161
costs incurred by society from, 138
global spread of, 193–194
origin in civet cats, 164
Sheep pox, in biowarfare/bioterrorism, 252, 255, 348
Shell disease, in lobsters and crabs, 53, 322
Shellfish, see also Aquaculture
common and scientific names of, 344
as food, 39, 228
food demands for, 140
freshwater, foodborne diseases, 86–88
marine, 39, 47–53
Shellfish poisoning, 49, 209
Shell necrosis, in tortoises, 78
Shiga toxins, in biowarfare/bioterrorism, 352
Shigellosis
in biowarfare/bioterrorism, 237, 241, 246, 350
foodborne, 89
intentional contamination with, 241
Shooting preserves, private, 139–140, 143, 149, 154, 156, 158–159
Shope's fibroma, in rabbits, 226
Shorebirds, influenza virus in, 36
Shotshell pellets, in game meat, 211
Shrimp
farmed, 53, 104
penaeid, 104
in seagrass beds, 39
Taura syndrome in, 53, 105
white spot syndrome virus in, 53
*Six Modern Plagues and How We Are Causing Them*, 285
Skunks
human diseases from bites/scratches, 197
as pets, 12, 164
rabies in, 83, 164
Slime mold, marine, 41
Smallpox
aerosol transmission, 234
in biowarfare/bioterrorism, 234, 236–237, 244–245, 348
epidemics of, 28
eradication of, 26
in Native American populations, 28, 105
transmission of, 236
Smoked meat, 211–212, 215
Smolt, 71
Snails
game meat, 160
game ranching, 153
Snakes
commercial production of, 156
human disease from bites/scratches, 197
as pets, 166–167
ranavirus infections in, 81
snake farming, 165
snake meat, 165
Snow, John, 9
Snow geese, aflatoxicosis in, 76
Snowshoe hares, translocations of, 147
Social costs, of wildlife diseases, 131, 138
Soft coral, 41–42
Softshell turtle iridovirus, 104
fauna affected, 315
geographic area affected, 315
Softshell turtles, 157
Songbirds
avian pox in, 175
feeding by humans, 175
salmonellosis in, 78, 172, 175
Southeastern Cooperative Wildlife Disease Study, 133, 262–263
*Sphingomonas*, 44
*Spirillum*, human disease from animal bites/scratches, 197
Sponge disease, 45, 322
Sponges, 41
common and scientific names of, 344
Sporotrichosis, companion animals as sources of, 95
Sportfishing, 142, 146
economics of, 142
Spring viremia, of carp, 68–71, 315, 348
Squirrel parapox, 150
Squirrels
feeding of, 172
fibromas on, 226
human disease from bites/scratches, 197
interstate sale of, 177
mange in, 218, 220
monkeypox in, 168–171
myiasis in, 218
squirrel meat, 218
translocations of, 147, 150
Staghorn coral, 41
Staphylococcal diseases
animal bites and, 93
Staphylococcal diseases—Continued
in deer, 31
foodborne, 89
human disease from animal bites/scratches, 197
State of Wisconsin's Reference and Loan Library, 293
Steel Shot and Lead Poisoning in Waterfowl: An Annotated Bibliography of Research, 291
Steinhausiosis
fauna affected, 320
geographic area affected, 320
Stem rust, in biowarfare/bioterrorism, 257, 351
St. Louis encephalitis
fauna affected, 315
geographic area affected, 315
Stomach worms, in harvested wildlife, 217
Streptococcal diseases
animal bites and, 93
fauna affected, 317–318
foodborne, 84
geographic area affected, 317–318
Streptococcus iniae, 38
in finfish, 50
Streptococcus suis, 301
Streptothricosis
in deer, 198, 225
human disease from handling wildlife, 97–98, 198
Subsistence hunting, 160
Sugarcane Fiji disease, in biowarfare/bioterrorism, 257, 348
Sugarcane leaf scald disease, in biowarfare/bioterrorism, 257, 350
Suncoast Seabird Sanctuary, 173
Surra, in biowarfare/bioterrorism, 351
Swans, 71
game ranching, 153
Swimmers' itch, 15, 31
Swimming, see Contaminated water; Outdoor recreation
Swine
feral, brucellosis in, 225
pork, 84
Streptococcus suis in, 301
vesicular exanthema in, 57
Swine fever
in biowarfare/bioterrorism, 251, 255, 257, 346
fauna affected, 313
geographic area affected, 313
Swine vesicular disease, in biowarfare/bioterrorism, 253, 255, 348
Syngamus trachea, see Tracheal worms
Syphilis, 105
T
Tadpole edema virus, 64
fauna affected, 315
geographic area affected, 315
Taenia ovis krubbei, see Cystercercosis
Tapeworms
dog, see Dog tapeworm
in fish, 222
in harvested wildlife, 217
Taura syndrome
in biowarfare/bioterrorism, 348
fauna affected, 315
geographic area affected, 315
in shrimp, 53, 105
Technology, 99, 103
Tegus, commercial production of, 156
Terrestrial environment
birds, 75–78, 81
disease emergence in, 75–84
mammals, 80, 83–84
reptiles, 81
tortoises, 78
Teschen disease, in biowarfare/bioterrorism, 253, 348
Tetanus, companion animals as sources of, 94
Theileriosis, in biowarfare/bioterrorism, 351
Thorny-headed worms
in aquatic animals, 218
in mammals, 218
in waterfowl, 218
Tickborne disease, 31, 98, 195
maintenance of tick populations, 36
Tickborne encephalitis, in biowarfare/bioterrorism, 250
Tickborne hemorrhagic fever, in biowarfare/bioterrorism, 250
Ticks
of companion animals, 12, 96
of harvested wildlife, 216, 219
West Nile virus in, 37
Tigers, human diseases from bites/scratches, 197
Tiger salamander virus, 64
fauna affected, 315
geographic area affected, 315
Tilapia
Cryptobia branchialis in, 71
type E botulinum toxin in, 24
Tinea, see Ringworm
Toads, see Amphibians
TOPOFF (mock plague outbreak), 236
Tortoises, 78
Galapagos Island, 78
shell necrosis in, 78
translocations of, 150
upper respiratory tract disease in, 78, 81, 150
Tourism, see Ecotourism; Travel
Toxicosis, in biowarfare/bioterrorism, 246
Toxic tissue secretions, 6
Toxins, 25, 48–49, 321
biowarfare/bioterrorism agents, 352
disease emergence and, 48–49
in game meat, 228
Toxoplasmosis, 16
companion animals as sources of, 95–96
fauna affected, 320
foodborne, 85, 88, 92
in game meat, 222
geographic area affected, 320
human disease, 25
in sea otters, 60–61
waterborne, 88
Tracheal worms, in upland game birds, 218, 220, 222
Transactions of the North American Wildlife and Natural Resources Conference, 281
Translocations of wildlife, 99, 105–106, 130, 139–148, 156, 260
amphibians, 67
disease impacts associated with, 148, 150
health certification before release, 177
mammals, 146–148
national wildlife health strategy, 178
percentages by wildlife type, 148
quarantine period, 177
in USA, Canada, New Zealand, and Australia, 148
wildlife as pets, 161–166
by wildlife rehabilitators, 146
Transmissible gastroenteritis, in biowarfare/bioterrorism, 348
Transplant recipients, 96, 99
Transport vessels, 105
Travel, 7, 11, 13, 90, 99, 105–106
exposure to zoonoses, 192–203
combating zoonotic diseases, 196
direct pathways, 195, 199
indirect pathways, 195–200
pre-travel counseling, 203
Traveler’s Health: How to Stay Healthy Abroad, 202
Travel Health Care (Web site), 202
Travel medicine
combating zoonoses, 196
information sources, 202–203
Trematodiasis
fauna affected, 320
in fish, 219
geographic area affected, 320
in waterbirds, 75
Treponemal infection
fauna affected, 318
geographic area affected, 318
Trichinellosis, see Trichinosis
Trichinosis
in bears, 6
in biowarfare/bioterrorism, 352
from cougar jerky, 31, 91
foodborne, 84, 92, 215, 222
in game meat, 13, 90–91
human disease, 25
in marine mammals, 56, 59
routes for human exposure to, 15
Trichomoniasis
in birds, 175, 218, 220, 222
in pigeons, 76
Trichomonosis, in biowarfare/bioterrorism, 351
Trichophyton, see Ringworm
Trichothecenes, in biowarfare/bioterrorism, 352
Tristate Bird Rescue and Research Inc., 173
Tropical Diseases, 277
Trypanosomosis, in biowarfare/bioterrorism, 351
Tuberculosis, 5, 38, 301
avian, see Avian tuberculosis
bovine, 6, 105, 149, 228
in biowarfare/bioterrorism, 242, 349
in bison, 151, 154–155, 225, 242
in buffalo, 242
in deer, 80, 83, 154–155, 172, 175, 224–225
in elk, 172, 175, 225
fauna affected, 318
geographic area affected, 318
information sources, 284
crossing species barriers, 101
fauna affected, 318
foodborne, 84
geographic area affected, 318
human disease, 25, 193
in lions, 80
in marine mammals, 58
multidrug-resistant, 250, 350
in nonhuman primates, 83–84, 162–163
routes for human exposure to, 15
zoonoses-specific publications, 282
Tufts Wildlife Clinic, 173
Tularemia, 31, 83
in beavers, 224–225
in biological control of vertebrates, 261
in biowarfare/bioterrorism, 237, 245, 256, 260, 350
companion animals as sources of, 94–96
fauna affected, 318
foodborne, 88–89
in game meat, 209, 222
geographic area affected, 104, 318
in ground squirrels, 260–261
human disease from animal bites/scratches, 197
in muskrats, 31, 225
Tularemia—Continued
  in postwar Bosnia, 106
  in prairie dogs, 166
  in rabbits, 13, 31, 150, 225
  routes for human exposure to, 15
Tumors, of finfish, 213, 216
Turtlegrass, 41
Turtles
  commercial production of, 157
  fibropapilloma in, 51
  game ranching, 153
  marine, 51
  obstructive rhinitis in, 51
  as pets, 12, 94–95, 157, 166–167
  pneumonia in, 51
  red neck disease in, 104
  salmonellosis in, 157, 198
  thorny-headed worms in, 218
  turtle farming, 51, 104, 165
  turtle meat, 157
  ulcerative stomatitis-obstructive rhinitis-pneumonia complex in, 51, 322
Typhoid fever, in biowarfare/bioterrorism, 234
Typhus, in biowarfare/bioterrorism, 234, 247, 350

U
Ulcerative mycosis, in fish, 48
Ulcerative stomatitis-obstructive rhinitis-pneumonia complex, in turtles, 51, 322
Upland game birds, 142
  captive propagation and release for hunting, 142, 145, 154
  gizzard worms in, 218
  histomoniasis in, 218, 222
  tracheal worms in, 218, 220, 222
Upper respiratory tract disease
  fauna affected, 318
  geographic area affected, 318
  in tortoises, 78, 81, 150
Urban decay, 99
Urbanization, 5, 7, 99, 102, 129
Urban parks, 120
Use of Lead Shot for Hunting Migratory Birds in the United States, 291
Using the Biological Literature: A Practical Guide, 288
Usutu virus
  in birds, 77, 81
  fauna affected, 316
  geographic area affected, 316
Uvulifer ambioplitis, see Black spot/grub

V
Vaccine, 25
  against biowarfare/bioterrorism agents, 243
Valley fever, see Coccidioidomycosis
Varicella-zoster virus, 168
Variola major, see Smallpox
Varroasis
  in biowarfare/bioterrorism, 352
  fauna affected, 320
  geographic area affected, 320
Vector-Borne and Zoonotic Diseases, 292
Vector-borne diseases, 105, 132
Vegetables, foodborne diseases, 88–89
Venezuelan equine encephalitis, in biowarfare/bioterrorism, 244, 247, 252, 256
Vertebrates, 104
Vesicular exanthema, in swine, 57
Vesicular stomatitis, in biowarfare/bioterrorism, 253, 255, 257
Veterinary Public Health Reports: Notes on the Role of Wildlife in the Epidemiology of Zoonoses, 281
Vianole de brousse, 160–161
Vibrio, 53
  fauna affected, 318
  fish-pathogenic, 51
  foodborne, 86, 88
  geographic area affected, 318
  human disease from animal bites/scratches, 197
  in marine mammals, 56, 58–59
Vibrio alginolyticus, 51
Vibrio carcheriae, 43
Vibrio cholerae, see Cholera
Vibrio parahaemolyticus, 85
Vibrio vulnificus, 88
Viral chorioretinitis
  fauna affected, 316
  geographic area affected, 316
Viral diseases
  biowarfare/bioterrorism agents, 346–348
  companion animals as sources of, 93
  crossing species barriers, 100–101
  fauna affected, 313–316
  foodborne, 84, 86
  game meat and, 224–226
  human disease from animal bites/scratches, 197
  human disease from handling wildlife, 198
  geographic area affected, 313–316
  pathogen characteristics, 16
  sources of human disease, 25
Viral hemorrhagic septicemia
  fauna affected, 316
  in finfish, 70
  geographic area affected, 316
movement between freshwater and saltwater fish, 71
in salmonids, 47
Viral papillomatosis
fauna affected, 316
geographic area affected, 316
“Virgin soil epidemics,” 97
Virulence, 25
Virus X: Tracking the New Killer Plagues: Out of the Present and Into the Future, 285
Visceral gout, 217
Visceral larva migrans, companion animals as sources of, 95–96
Vultures
intoxication in, 76, 81
as scavengers, 139
W
Walruses, 51–56, see also Marine mammals
walrus meat, 59, 91
War, 99, 106
Warble flies, in harvested wildlife, 216, 218
Wastewater treatment, 105–106
Waterbirds, 71–75
avian botulism in, 21–24, 27, 72–73, 75
avian cholera in, 73–74, 77
avian vacuolar myelinopathy in, 75, 78
chlamydiosis in, 73
duck plague in, 71–72
Newcastle disease in, 71–73
trematodes in, 75
Waterborne diseases, 87–88, 138
in biowarfare/bioterrorism, 247
cryptosporidiosis, 88
giardiasis, 88
toxoplasmosis, 88
Waterborne Zoonoses: Identification, Causes, and Control, 281
Waterfowl, 39, 102
aspergillosis in, 103
avian cholera in, 242
Campylobacter reservoirs, 87
captive propagation of, 158
waterfowl health regulation, 158
duck plague in, 242
feeding by humans, 172
game ranching, 153
immunosuppressed, 103
migration of, 102
ornithosis in, 198
pesticide exposure, 103
sarcosporidiosis in, 218, 220–221
thorny-headed worms in, 218
Water quality, 105
Water reclamation, 99
Water treatment, 103, 105–106
Weapons of mass destruction, 236–240
Web of Science (database), 294
Western equine encephalitis
in biowarfare/bioterrorism, 247, 256, 348
fauna affected, 316
geographic area affected, 316
West Nile virus, 6, 301
in birds, 31, 75–76, 79
costs incurred by society from, 138
in crows, 34, 37, 76, 81
in domestic animals, 79
human disease, 25
in mammals, 75–76
in migratory birds, 37
monitoring in birds, 30
prevention and eradication of, 34–35
in raptors, 172
social and economic impact of, 34–35
in ticks, 37
wildlife rehabilitation and, 13, 35
Wetlands, 102–103
Whale finger, 58
Whales, 51–56, see also Marine mammals
whale meat, 59
Whirling disease
fauna affected, 320
geographic area affected, 320
in rainbow trout, 68–69, 105, 150
White-band disease, of coral, 41, 43
White grub, in fish, 219
White plague, 44
White pox disease, of coral, 44
White spot disease, in shrimp, 53
in biowarfare/bioterrorism, 348
fauna affected, 316
geographic area affected, 316
White sturgeon herpesvirus
fauna affected, 316
geographic area affected, 316
White sturgeon iridovirus
fauna affected, 316
geographic area affected, 316
White sturgeon virus, 69
Whooping cranes, translocations of, 141, 143
Wild boar
boar meat, 91, 165
hog cholera in, 80
thorny-headed worms in, 218
Wild dogs, 260
Wilderness Medical Society Web site, 202
Wilderness medicine, 203
Wilderness travel, 195
Wildlife, see also Free-ranging wildlife
   as vehicle for spread of infectious agents, 258
   as vehicles for transmission of disease, 245
zoonoses and, 30–38
Wildlife and Ecology Worldwide (database), 291
The Wildlife Center of Virginia, 173
Wildlife disease programs, 131–136, 262
   disease diagnosis, 132, 134
   disease prevention and control, 135
   disease surveillance, 132, 135
   early detection of disease, 132
   fiscal resources, 133
   knowledge and networks, 134–135, 263–264
   locations and sponsorship of, 136
   newsletters and Web sites of, 263
   timely response to outbreaks, 132–133
Wildlife diseases
   emergence of, 30
   emerging, 38–84
   information sources, 283–290
   major events, 1980–2000, 137
   national wildlife health strategy, 178–179
Wildlife extension, 210
Wildlife feeding, 130–131, 172–177
Wildlife harvest, 13, 15
Wildlife management, 139–148
Wildlife rehabilitation, 12–13, 130, 146, 166–172, 195
   marine mammals, 58–59
   USA programs, 173
   West Nile fever and, 35
Wildlife Review, 291
Wildlife stewardship, 139
Wildlife Worldwide (database), 294
Wildpro, 287, 291
Wild turkeys
   blackhead in, 220
   captive propagation and release for hunting, 145
   translocations of, 141
Willowbrook Wildlife Center, 173
Wisconsin Tech Search and Instant Library, 293
Withering syndrome, in abalone, 52, 322
Wolves
   heartworm in, 160
   mange in, 220, 260
Woodcock iridovirus
   fauna affected, 316
   geographic area affected, 316
Woodcock reovirus infection, 81
World Atlas of Epidemic Diseases, 277
WorldCat (database), 289
World Health Organization, travel medicine information, 202

Y
Yaws, in nonhuman primates, 163
Yellow-band disease, of coral, 43–44
Yellow-blotch disease, see Yellow-band disease
Yellow Book (CDC), 202–203
Yellow fever
   in biowarfare/bioterrorism, 250, 348
   travel-related, 13
Yellow grub, in fish, 219
Yellowhead disease, in biowarfare/bioterrorism, 348
Yellow perch, Heterosporis in, 68
Yersinia enterocolitica, 85
Yersinia pestis, see Plague
Yersiniosis
   companion animals as sources of, 94
   in deer, 154–155
   fauna affected, 318
   foodborne, 85–86
   geographic area affected, 318
Z
Zebras
   African horse sickness in, 150, 242
   translocations of, 150
Zoanthid disease, 322
Zoo and Wild Animal Medicine, 291
Zoological collections, 130
Zoological Record (database), 291–292, 294
Zoonoses, 7, 142
   defined, 5
   disease emergence and, 30–31
   foodborne, 84
   human activities and, 1, 12–13
   information sources, 276–283
   rapid reporting of outbreaks, 283
   marine mammals and, 57–59
   routes for human exposure to, 30–31
   travel and, 192–203
   wildlife and, 30–38
Zoonoses (book), 280–281
Zoonoses and Communicable Diseases Common to Man and Animals, 280–281
Zoonoses and the Origins of Ecology of Human Disease, 277
Zoonoses: Biology, Clinical Practice, and Public Health Control, 280
The Zoonoses: Infections Transmitted from Animals to Man, 281
Zoonoses: Infectious Diseases Transmissible from Animals to Humans, 280–281
Zoonoses of Primates: The Epidemiology and Ecology of Simian Diseases in Relation to Man, 280
Zoonoses Research, 292
Zooplankton, 40
Book production

Edited by Gail Moede Rogall

Designed by Marta Anderson, Elizabeth Ciganovich, and Phillip Redman

Special illustrations and cartoons by John M. Evans

Layout and illustrations by Marta Anderson, Frances Jeanne Bergmann, Elizabeth Ciganovich, John M. Evans, Erinn Dornaus, Paul Medenwaldt, Phillip Redman, Jennifer Rodriguez, and Rosemary Stenback.

Indexed by Barbara Littlewood

Cover photos

Front cover:
Cougar photo by Milton Friend

Fish release photo by the Wisconsin Department of Natural Resources

Gorilla and human photo by Teresa Wawrzynczyk, Twycross Zoo, United Kingdom

Sea turtle photo by Thierry Work

Shorebird photo by Milton Friend

Back cover:
Otter photo by Milton Friend

Bird photo by Milton Friend

Prairie dog photo by the U.S. Fish and Wildlife Service