INDEX

abuse, animal, 4, 60–62, 69, 73, 78–79, 89–90, 214
Academy of Sciences, National, 15
acidification, ocean, 15, 24, 29, 34–35, 48, 110, See also ocean: acidification
Act, Defense Production, 28, See Defense Production Act
adequate intake (AI) level, 132
adolescents, 194
aerobic fitness, 87
process. See also compost
Africa, 6, 12, 44, 58–60, 81, 88–90, 94, 136–138, 185
African nations
Ethiopia, xii, 13, 184
Kenya, 58–59, 63, 81–82, 196
Zimbabwe, 88–89
agribusiness, 9
agricultural films, 177
agriculture, 7, 13–14, 25–29, 86, 102, 125–129, 136, 154
animal, 7, 29
rain-fed, 14
runoff, 20, 22
subsistence, 13
agroforestry, 205
ahimsa silk, 213
AI – adequate intake level. See adequate intake (AI) level, See dietary reference intakes
air temperature, 206
airplanes, 191, See also transport:planes
Akashinga, vii, 88, See also antipoaching
ALA – alpha-linolenic acid, 132, See omega-3:plant-based
algae, 131–132, See omega-3:plant-based
alpha-linolenic acid (ALA), 132, See omega-3:plant-based
alternating current, 195, See also electricity
aluminum, 44
Amazon rain forest, xii, 13, 190, 203, See Amazon
America, Latin, 6, 136–137, See America, South
America, South, 136–137
American diet, 15
American Heart Association (AHA), 22, 130
American Society for Testing and Materials (ASTM), 174, See also European Standardization Committee
ammonia, 151
anaerobic process, 135, 142, 151, 176, 214
analogs, dairy and meat, 26, 87
anchovies, 36, See also fish, wild-caught
animal agriculture, 7, See agriculture: animal
animal captivity, 72, See also entertainment: animal
animal confinement, 4, 9, 60, 74, See abuse, animal, See confinement, animal
animal entertainment, 70, See also captivity
animal products, 6, 8, 12–15, 18, 27, 29, 66, 100–102, 107, 110–119, 201
bones, 66
dairy, 8, 66
eggs, 8, 50, 66
fish, 50
fur, 66
ivory, 66
leather, 66
meat, 8, 50, 66
milk, 50
poultry, 8
processed meat, 8
replacements, 112, See analogs, dairy and meat
replacing, 112
scales, 66
skins, 66
animal welfare, 70, 81, 87, 89–90, 203, 214, See also welfare, animal
animals, endangered. See also endangered species
animals, wild. See also wild animals
Antarctica 2020 campaign. See also Lewis Pugh Foundation
anthropocentric viewpoint, 55
anthropogenic climate change, 19–31, 67, 96–98, 100, 105, 110–112, 201, 204, 206, 214, 219, See climate change, anthropogenic, See climate change
anthropogenic debris, 24, See also plastics
anthropogenic greenhouse gas emissions, 24, See greenhouse gas emissions
antibiotic resistance, 12
antibiotic use, 10–12, 37
anticaptivity, 78, 90
antienvironmental, 188
anti-inflammatory, 109, 153, 200, See also plant-based diets
antimicrobial properties, 151, 153, 215, See also compost, See also fiber, natural: linen
antipoaching, 81–82, 88
anxiety, 52, 62, 140
apartment, 1, 153, 155, 158, 197
walkup, 148, 207
aquaculture, 35–37, See also farmed fish
fish feed, 35
ratio, fish to fish out, 35
aquaculture, integrated multitrophic, 134
aquarium, 4, 70, 72–74, See also captivity, See also animal entertainment, See also Miami Seaquarium
Arctic Decade campaign. See also Lewis Pugh Foundation
Arctic Ocean, 91, 190, 219
Asia, 6, 44, 55, 59, 78, 93, 136, 185
Asian markets, 55, 93
Asian medicine, 59, See also Chinese medicine
ASTM – American Society for Testing and Materials, 174, 229, See also plastics: biodegradable
Atlantic Ocean, 23, 219
Atoll, Midway. See also Midway Atoll
Australia, 84, 88, 100, 162, 185, 197, 219
New South Wales, 84, See also wildfires: Australia
wildfires, 84
authors. See also book recommendations
Anthony, Lawrence, 217
Campbell, T. Colin, 217
Carson, Rachel, 217
authors. (cont.)

Clover, Charles, 217
Diamond, Jared, 217
Estabrook, Barry, 218
Greenberg, Paul, 217
Kolbert, Elizabeth, 217
Noah Harari, Yuval, 217
O’Barry, Richard, 217
Quammen, David, 217
Safina, Carl, 217
Tickell, Josh, 218
Watson, Paul, 83
Wise, Steven, 217

automobiles, 87, 147, 192–193, 210, See also transport: automobiles

Bader Ginsburg, Ruth, 202
bags, reusable, 143, See also reusable bags
Bali. See Indonesia
bamboo, 213, See also fiber, natural: bamboo
ban, plastic bag, 165, See also plastic bag ban
ban, Styrofoam. See also Styrofoam ban
bats, 2, 11
coronaviruses, 2, 11
COVID-19, 2
MERS, 2
SARS – severe acute respiratory syndrome, 2
batteries, 195, See also renewable energy
battery cages, 125, See also hens: egg-laying
bear bile, 60, See also medicine, Eastern bears, polar. See also polar bears
beef. See meat
behavioral problems. See also persistent organic pollutants (POPs): health effects
behaviors, stereotypic, 62, See also stereotypic behaviors, See also captivity
Beijing. See also China

Belgian Malinois, 82, See dogs, Belgian
Malinois, See also Sheldrick Wildlife Trust, See also antipoaching
Belgium
Brussels, 193, See also cities: walkable beverages, 123, 128, 170–171, 211
sugar-sweetened, 39
bicycles. See also transport: bikes, See also bikes
bikes, 86, 107–194, 201, 222, 232, See also transport: bikes
bile, bear. See also bear bile
bioaccumulation, 48–49, See also persistent organic pollutants (POPs)

bio-based plastics, 174, See also plastics: bio-based
biodegradable plastics, 174, See also plastics: biodegradable
biodiversity. See biological diversity
biofuel, 28, See also subsidies
biological diversity, 9, 125, 127, 207, See loss of, 9, 13, 15, 29
protecting, 207, See
biomass, 23, 65–66, 175, 177
fisheries, 23, See fish stocks
human, 65
mammal, 65
livestock, 65
wild mammals, 65
plant, 175, 177

bird flu, 11, See also pandemics: bird flu, See H5N1
black bears, Asiatic, 60, See also bear bile

Blackfish. See SeaWorld, See Orlando, Florida, See also Tilikum
black market, 93
black-market trade. See also wet markets


ivory, 63, 66, 82, 94, 217
pangolin scales, 60
rhinoceros horn, 59, 82
shark fins, 55

boats, 192, See also transport: ships
bones, 66, See also animal products
book recommendations. **See also** authors

- *Babylon’s Ark*, 217
- *Behind the Dolphin Smile*, 217
- *Captain Paul Watson: Interview with a Pirate*, 83
- *China Study*, 217
- *Collapse*, 217
- *Eating Animals*, 217
- *Elephant Whisperer, The*, 217
- *End of the Line, The*, 217
- *Four Fish*, 217
- *Homo Deus*, 217
- *Kiss the Ground*, 218
- *Last Rhinos, The*, 217
- *Rattling the Cage*, 217
- *Sapiens*, 217
- *Silent Spring*, 217
- *Sixth Extinction, The*, 217
- *Spillover*, 217
- *Tomatoland*, 218
- *Upheaval*, 217
- *Voyage of the Turtle*, 217
- *What Animals Think and Feel*, 217
- *World Is Blue, The*, 217

**Borneo**, 91, **See also** orangutans

- Borneo Orangutan Rescue, 91, **See also** endangered species: orangutans
- bottlenose dolphin, 77, **See also** dolphin: bottlenose, **See also** Taiji
- BPA – bisphenol A, 131, **See also** persistent organic pollutants (POPs)

**Brazil**, 64, 189, 197, 204, 208, **See also**

- Amazon rain forest
deforestation, 204, 208
- Brown, Jerry, 43
- Brussels, 193, **See also** Belgium: Brussels
- buffalo, 7, **See also** greenhouse gases: agricultural

**bushfires. **See also** wildfire

- bushmeat, 63, 82
- butter substitute, 115
- avocado, 115
- hummus, 115
- marmite, 115
- nut or seed butter, 115
- vegemite, 115
- by-catch, 23, 36, 134–135, 138, **See also** overfishing
- by-kill. **See also** bycatch
- CAFO – concentrated animal feeding operation, 9, 28, 35
cattle, 220
chickens, 220
cows, 65
fish and seafood, 220
hens, 125
Cambodia, 63
cancer, xiii, **See** chronic disease

canning, 146–147, **See also** food storage
captive selection, dolphin. **See also**
dolphin capture
captivity, 4, 60–62, 70, 73
animal entertainment, 60
aquarium, 60
circus, 60, 69, 79
marine amusement park, 60, 70
orangutans, 79
SeaWorld, 60
zoos, 60
carbon dioxide, 7, 14, 67, 86, 102, 114,
126, 151, 174, 176, 191–192,
204, 207, 209, **See also**
greenhouse gases
carbon emissions, 136, **See** emissions
carbon sink, 207
oceans, 34, **See also** oceans as carbon sink
cardiologist, 131, **See also** Kedan, Ilan
cardiovascular disease, 130, 186
cars, 7, 15, 43, 86, 191, **See also**
industries: automotive
casein, 113, **See** tumors, **See also** dairy:
milk
cash transfers, 64, 93, **See also** safety nets
cassette
audio, 209
video, 209
catfish. **See also** farmed fish
Cedars Sinai Medical Center, 131
CFLs – compact fluorescent bulbs, 198, See also light bulbs
cheetah, 34, 72, See also endangered species
chia seeds, 129, 132, See also omega-3: plant-based
chicken, 7, 220, See also greenhouse gases: agricultural, See also poultry
childhood obesity, 194
children, 5–6, 70, 132, 167, 173, 188, 190, 194, 220, 231
health of, 167
malnutrition, 132
nutrition recommendations, 132
plants, 51
China, 13, 55, 85, 107, 189, 192
Beijing, 192
Wuhan, 2, 67
Chinese medicine, 59, See also Asian medicine, See also Eastern medicine
sea turtles, 61
tiger bones, 60
totoaba, 63
chronic disease, 5–6, 8, 14, 18, 20–22, 26–31, 87, 98, 105–111, 116, 130–131, 195, 200–201, 224
cancer, xiii, 20, 49, 129, 221
breast, 52
colon, 115
intestinal, 199–200
lung, 186
mouth, 200
stomach, 199–200
throat, 200
cardiovascular, 130, 186
diabetes, xiii
heart disease, xiii, 6, 20, 22, 52, 107, 114, 129, 133, 200, 208, 221
congestive heart failure (CHF), 186
hypertension, 20, 109
kidney disease, 6, 20, 109, 200
obesity, xiii, 52, 107
overweight, See also obesity
stroke, 6, 107, 109, 129, 208
circus, 4, 60–61, 69, 79, 90, See also captivity, See also abuse, animal, See also performing animals
cities, 3, 12, 63, 152, 159, 161, 172, 185, 187, 193, 201, 206, 227, 231, 233, See also urbanization
Milan, 192
Nairobi, 81
New York, 132, 165, 193
Venice, 3
walkable, 100, 162, 169, 173, 191–192, 201, 232
Brussels, 193
London, 193
Paris, 193
Seattle, 193
clean energy, 195, See also renewable energy
Climate Agreement, Paris, 86, 192, 204, See also Paris Climate Agreement
climate change, 2–7, 15–17, 19–31, 37, 47, 67, 70, 91, 96–97, 100, 105, 112–119, 201, 204, 206, 209, 214, 219, See also global warming
adaptation, 3, 34, 190, 219
policies, 188–191
climate change policies, 188–191, 193
climate change, anthropogenic, 5–7, 19–31, 67, 96–97, 100, 105, 110–112, 201, 204, 206, 214, 219, See also anthropogenic climate change
Clostridium perfringens, 11, See also foodborne illness
cocoons, silk, 213, See also silk moths
cod, 23, See also fish, wild-caught
coffee, 123, 164
coffee farming, 13, 205
coffee lids, 168–169, See also plastics, single-use
303 / Index

coffee shops, 169
Colombia, 64, 204
commercial fishing, 56, 134, 138, 190,
   See industrial fishing, See
   fishing:unsustainable
community-supported agriculture (CSA),
   vii, 99, 142, 154, 160
Compact fluorescent bulbs (CFLs), 198,
   See also CFL – compact
   fluorescent bulbs
compost, 126, 142–143, 149–154,
   171–181, 186, 227, See also
   farming:organic
compostable products, 171–181, 213,
   229, See also compost
concentrated animal feeding operation
   (CAFO), 9, 28, 35, See also
   CAFO – concentrated animal
   feeding operation
confine ment, animal, 4, 9, 60, 74, See
   abuse, animal
conflict
   human–elephant, 57
   human–giraffe, 60
   human–orangutan, 91
   human–wildlife, 89, 92
Congo, Democratic Republic of the, 204,
   See also DRC – Democratic
   Republic of the Congo
consumerism
   ethical, 167, 180
conventional farming, 123, 125, 127,
   150, 152, See intensive farming
cooperatives. See also fair trade, See also
   community-supported
   agriculture (CSA)
CoP – United Nations Conference of the
   Parties, 54
cope ment strategies, 17, 63–64, 67, 92
   deforestation, 67
ecosystems degradation, 17, 92
logging, 17, 63
migration, 63
poaching, 17, 63, 67, 92
poaching, 92
selling assets, 93
trade, 92
coral reefs, 15, 23–24, 29, 34, 45–48,
   190, See also ocean habitat
as shelters, 34
bleaching of, 34
for food, 34
threats to, 23, See also fishing methods
corals, 15, 34, 48
coronaviruses. See also bats:
   coronaviruses
COVID-19, 2
MERS – Middle East respiratory
   syndrome, 2
SARS – severe acute respiratory
   syndrome, 2
corridors, ecological, 57
elephant, 57
Cortez, Sea of, 62, See Sea of Cortez
cotton, 46, 208–209, 212, 216, 234, See
   also fiber, natural
coronaviruses
COVID-19, 2, See also pandemics, See
   also coronaviruses, See also
   bats:coronaviruses
cow farts, 214, See also enteric
   fermentation
cows, 65, 214, See also CAFO –
   concentrated animal feeding
   operation
Cree First Nations, 39, See also Native
   Americans
Cree First Nations prophecy, 39
climate, 37, 54, 107, 193, See also
   climate change
food, 37
public health, 107, See also chronic
   disease, See also emerging disease
critically endangered species, 34, 37, 60,
   63, 65, 69, See also IUCN –
   International Union for
   Conservation of Nature
crush, the. See also abuse, animal, See
   also elephants:Asian:tourism,
   See also elephant rides
CSA – community-supported agriculture, 154, 162–164, See also farming: organic

current, alternating, 195, See also electricity
current, direct, 195, See also electricity
dairy, 6, 12, 22, 50, 66, 112–113, 135, See also animal products

milk, 112, See also milk: cow’s
dairy replacements, 26, 87, 112, 115, 119, 135, 224, See also nondairy alternatives

dams, 196

Snake River, 196

Danone, dairy company, 135 See WhiteWave, nondairy company, see

Dart, Justin, 188

DDT – dichlorodiphenyltrichloroethane, 49, 131, See also persistent organic pollutants (POPs)
dead zones, xiv, 15, 34–35, See also ocean dead zones
death, leading causes of, 18, 105–109, 111, See also chronic disease

dead zones, ocean, See also ocean dead zones
death, premature, 8, 105, 107, See also NCD, See also chronic disease
debling diseases. See chronic disease

Defense Production Act, 28
deforestation, 4, 13, 20, 26, 29, 67, 109, 189

palm oil, 204, 208
deforestation, illegal, 204

Denmark, 165
denuded soils, 152, See also desertification

Department of Agriculture, US, see also USDA – US Department of Agriculture, See dietary guidelines

desertification, 14, 125, 136, 150, See also topsoil loss, See farming: intensive
development, fetal. See also fetal development

DHA, 22, 130, See omega-3
diabetes, xiii, 6, 20, 49, 52, 109, 129, 199
diet

animal-based, 13, 18

Mediterranean diet


standard American, 15, See standard American diet

sustainable, 111, 157, 191, 203, 221, See sustainable diet

vegan, 123

vegetarian, 100, 116, 118, 123, 201

Western, 15, See also diet: standard American

dietary changes, 21, 111
dietary fiber, 22, 109
dietary guidelines, 19–32, 80
dietary patterns, 15, 21, 28–29, 199–200, 203, See diet
dietary recommendations, 31–32, 80, See dietary guidelines
dietary reference intakes, 132
dietary supplements, 133, See National Institutes of Health: Office of Dietary Supplements
dietitian, 7, 112, 116, 129, 133, 148, 164, 199–200, 202, See also registered dietitian
dinosaurs, 56
dioxins, 50, See also persistent organic pollutants (POPs)
direct current, 195, See also electricity
directors, film. See also film directors
disease outbreak, 4, 8–10, 16, 37, 67, See also pandemics
documentaries, 45, 59, 70, 83, 214, 234, See also films
dogs, Belgian Malinois. See also Sheldrick Wildlife Trust,

See also antipoaching
dogs, tracking, 82, See also Belgian Malinois
dolphin, 46, 49, 61, 74, See also predators, ocean bottlenose. See also dolphin: captive selection, See also Taiji, See also dolphinarium captive selection, 75–77, See also dolphin: captivity, See also abuse, animal, See also hunting: dolphins, See also films: Cove, The captivity, 74, See also abuse, animal swim with dolphins, 74 cruelty, 72, See also abuse, animal extinct baiji Yangtze River dolphin, 55 intelligence, 77, See also intelligence in animals: dolphins pods (families), 77 Risso’s. See also Risso’s dolphins watching, 94, See ecotourism dolphin capture. See also dolphin: captive selection dolphin hunting grindadráp, 83 Taiji, 75 Dolphin Project, 75, 90–91, See also O’Barry, Richard, See also welfare, animal dolphin slaughter, 75, See also Taiji: dolphin slaughter dolphinarium, 61, 74, See also marine amusement park, See also SeaWorld DRC – Democratic Republic of the Congo, 204, See Congo, Democratic Republic drinking straws, 171, See straws drought, 5, 82, 84, 92, 149, 159, 219, See also weather extremes Dundee, Scotland, 192, See Scotland DuPont Company, 209, See also plastics E. Coli, 11, See also foodborne illness Earle, Sylvia, 32, 217 Eastern medicine, 59, See also Chinese medicine tiger bones, 60 ecological corridors, 57, See also corridors, ecological ecological tourism. See ecotourism ecotourism, 64, 93–94, 181–183, 230, See tourism Edison, Thomas, 195 eggs, 66, See also animal products Einstein, Albert, 54, 100 El Salvador, 196, See also geothermal energy electricity, 126, 195–198, 232, See also renewable energy alternating current (AC), 195 direct current (DC), 195 elephant corridors, 57 elephant herds, 82 elephant matriarchs, 48 elephant orphans, 81, See also Sheldrick Wildlife Trust elephant poaching, 56–58, 88, 94 elephant rides, 78 elephant–human conflict, 57 elephants, 34, 62, 220 African, 57–58, 88 rescue. See Performing Animal Welfare Society, See also Sheldrick Wildlife Trust Asian, 78, 90, See also Performing Animal Welfare Society tourism, 78, See also abuse, animal intelligence, 78, See also intelligence in animals: elephants emerging disease, 9, 67, 107, See spillover of infectious disease emissions, 3, 7–8, 25, 27, 29, 86, 100, 102, 110, 153, 181, 192–193, 197, See also greenhouse gases, See Paris Climate Agreement agricultural, 15, 25, 100, See also greenhouse gases buffalo, 7 chickens, 7 cows, 214 pigs, 7 ruminants, 7 sheep, 214
emissions (cont.)
carbon, 27, 136
from food waste, 8, 16, 27, 135–136
transport, 7, 15, 25, 100, 193, 195
endangered species, 8, 34, 37, 54, 56, 65, 69, 73, 93, 134, 181, 189
bluefin tuna, 23, 37
cheetah, 34, 72
dolphins, 77
elephant, 34, 62
elephants, 220
giraffes, 60, 220
goats, 79
koalas, 84, 220
lions, 62, 90, 220
manta rays, 93
orangutans, 34, 79, 91
orcas
Southern Resident, 49, See also Southern Resident killer whales
(SRKW)
pandas, 62
pangolins, 89, 220
polar bears, 62, 220
rhinoceros, 34, 59, 220
sea turtles, 61, See also poaching
seals, 47, See also seals
sharks, 46, 56, 94
sun bears, 60
tigers, 60, 62, 79
totoaba, 63
vaquita, 63, 220
Endangered Species Act, 55, See also IUCN
endangered, critically. See also IUCN –
International Union for Conservation of Nature
endocrine system dysfunction. See also persistent organic pollutants
(POPs): health effects
energy demand, 3
energy use, 15–16, 197, See also renewable energy
how to reduce, 197–199
change light bulbs, 198
freezer, 197
heat-reflecting film, 197
insulation, window, 197
low-E glass, 197
window insulation, 197
energy, clean, 195, See also renewable energy
energy, green, 195, See also green energy
energy, renewable, 195, See also renewable energy
energy, sustainable. See also renewable energy
England
London, 193, See also cities: walkable
enteric fermentation, 214, See also sheep, See also greenhouse gases:
agricultural, See also cow farts
cows, 214
sheep, 214
entertainment
animal, 62
EPA, 22, 130, See omega-3
erratic weather, 159, 219, See also weather extremes
ethical consumerism, 167, 180
ethical shopping, 123, 128, 167, 180, See also fair trade
Ethiopia, xii, 13, 184
European Standardization Committee, 174, See also American Society for Testing and Materials
(ASTM), See also plastics: biodegradable
face shields, 167, See also PPE – personal protective equipment
factory farming, 10, See also CAFO
fair trade, 123, 126–128, 225
FAO – Food and Agriculture Organization of the United Nations, 32–33
farmed fish, 10, 35–37, See also aquaculture
carp, 36
catfish, 36
salmon, 32, 36
tilapia, 36
trout, 36
farmers markets, 142, 144–145, 159–165, 194, 201, 228
farming, 156
conventional, 125, 127, 150, 152
factory, 10, See also CAFO
industrial, 10, 152, See also CAFO
intensive, 123, 150, 152
monoculture, 9, 95, 159
organic, 123, 126–128, 151, 161–164, 225
regenerative, 86, 123, 125–126, 128, 161–162, 177, See also biological diversity
sustainable, 126, 128, See also regenerative farming
farm to table, 156
Faroe Islands, 83
fetal development, 50, 52
fetal development problems. See also persistent organic pollutants (POPs): health effects
fiber, natural, 185, 234
bamboo, 213
cotton, 46, 172, 177, 208–209, 212–213, 216, 234
flax, 212–213
hemp, 212–213, 216
linen, 212–213, 216
antimicrobial properties, 213
silk, 46, 212–213, 216
wool, 213, 216
fiber, plastic, 24, 211, See fiber, synthetic fiber, synthetic, 24, 178
acrylic, 208, 210–211, 215, 234, 251
nylon, 41, 46, 168, 209, 211, 215, 234
polyester, 179, 208–211, 215, 234
rayon, 208–209, 215, 234
spandex, 208, 210, 215, 234
film
heat-reflecting, 197
film directors
Attenborough, David, 218
Clover, Charles, 217
Cowperthwaite, Gabriela, 217
Fulkerson, Lee, 217
Guggenhein, Davis, 217
Hegedus, Chris, 217
Ladkani, Richard, 217
Leeson, Craig, 217
Luck, Geoffrey and Bowie, Ben, 217
Orlowski, Jeff, 217
PBS channel, 98
Psihoyos, Louie, 217
Shenk, Jon, 217
Siewierski, Michal, 217
Stone, Victoria, 217
Sun, Angela, 217
Tickell, Josh, 218
films, 13, 59, 70, 75, 214
Before the Flood, 217
Black Gold, 13, 265
Chasing Coral, 62, 70–71, 217, 257
Chasing Ice, 217
Cove, The, 75, 90, 217, 283
Eco, 217
Elephant Queen, 217
End of the Line, The, 217
Food Choices, 217
Forks Over Knives, 217
Game Changers, The, 217
Gods in Shackles, 78, 270, See also India: Kerala
Inconvenient Sequel, An, 217
Inconvenient Truth, An, 217
Ivory Game, The, 217
Kiss the Ground, 217
Life on our Planet, A, 218
Naledi, 217
photographic, 178
Plastic Ocean, A, 217
Plastic Paradise, 45, 217
Racing Extinction, 93–94, 217
recording. See also cassette
Sea of Shadows, 217
Takeout, 217
films (cont.)
Unlocking the Cage, 217
WALL-E, 167
Finland, 165
fins, shark, 55–56
firefighters, 84–85
fires. See also wildfire
First Nations Prophecy, Cree, 39
fish feed
wild-caught, 36
fish in to fish out ratio. See also ratios, fish in to fish out
fish market, 32, 49, See also grocery store
fish oil, 22, 32, 36, 38, 129, 131, 135 See also supplements: fish oil, See also omega-3: fish-based
alternatives, 134, See omega-3: plant-based
fish stocks, 4, 23, 33–34, See also United Nations State of World Fisheries
fish, wild, 35, 37
fish, wild-caught
anchovies, 36
cod, 23
herring, 36
menhaden, 36
tuna, 23, 32
fishing, 47
illegal, 23, 33, 55, 83
nets. See also fishing methods
subsistence, 23
sustainable, 23, 37, 135, See also sustainably caught fish
unsustainable, 23, 33, 35–36, 46, 56, 80, 129, 138, See also overfishing
fishing methods, 23, 138
ghost fishing, 46
longlines, 23, 138
nets, 138
gill, 23
purse seine, 23
trawling, 23
fishing nets, 45–46, 56, 83, 178, 209, See also fishing methods: nets
fishmonger, 38, See also fish market
flax. See also linen
flaxseed, 22, 38, 116–117, 120, 129, 132, 208, 225, See also omega-3: plant-based: flaxseed
floods, 5, 92, 219, See also weather extremes
floppy disk, 209
Florida, 70
flu. See also influenza
flu 1918–1919. See also pandemics, See also influenza
flu virus, 11
H1N1, 11
food chains, 24, 33, 38, 49, 133–134
food distribution, 27, 87, 137, 148, See also supply chains
food insecurity, 6, 8, 16, 26–27, 70, 98, 137, See also supply chains: disruptions, See also malnutrition: hunger
food parcels. See also safety nets, See also World Food Programme
food prices, rising, 137, See also food insecurity
food security, 5, 7–9, 17, 20, 23, 28–31, 139, 147, 159, 177, 201, 205
food storage, 40, 138–139, 142, 146–149
canning, 142
freezing, 142
jarring, 142
food supply, 16, 27, 102, 138, 154
food systems, 6, 18, 111, 126, 156, See also farming
food waste, 7–8, 16–17, 27, 123, 135–143, 146–147, 153–154, 175, 226
agricultural, 16
foodborne illness, 11
Clostridium perfringens, 11
E. coli, 11
Listeria, 11
Salmonella, 11
Staphylococcus aureus, 11
foods, animal-based, 6, See animal products
foods, sustainable, 129, See also sustainable foods, See also diet: plant-based
footprint
carbon, 194, 199, 232
environmental, 163, 195, 214
forest
urban, 206
Forest Service, Kenya, 81, See also Kenya Forest Service
fossil fuels, 15, 29, 54, 69, 97, 110, 177–178, 193, 195, 221, See carbon dioxide, See also Paris Climate Agreement, See greenhouse gases, See also electricity
Foundation
Lewis Pugh. See also Lewis Pugh Foundation
fracking, 52
France, 161, 189, 193
Paris, 170, 193, See also cities: walkable
freezer, 198, See also energy use: how to reduce
Fuller, Thomas, 203
fur, 66, See also animal products
Futo, Japan, 94, See also Japan: Futo
Galapagos Islands, 83
Gandhi, Mahatma, 69
Garan, Ron, xi
geothermal energy, 196, See also renewable energy
El Salvador, 196
Iceland, 196
Kenya, 196
New Zealand, 196
Philippines, 196
ghost fishing, 46
of dolphins, 46
of fish, 46
of sharks, 46
of whales, 46
gill nets, 63, See also fishing methods: nets: Gill
gill plates, 93, See Asian markets, See Chinese medicine, See Eastern medicine, See also manta rays
giraffes, 60, 220, See also endangered species: giraffes
glass, low-E. See also low-E glass
global warming, 3–4, 16, 18, 24, 29, 37, 47, 67, 97–133, 190, 204, 206, 209, 219, See climate change
gloves, 4, See also PPE – personal protective equipment
Goddard, Paulette, 132
Gondwana, 84, See rain forests, See wildfire: Australia
Goodall, Jane, 70, 80, 96
gorillas, 79
grandchildren, 70, 188, 190, 220, 231, See also children
Great Elephant Census, The, 57, See elephants: African
green energy, 195, See also renewable energy
greenhouse gas emissions, anthropogenic. See climate change
greenhouse gases, 7, 15, 25, 44, 102, 110, 126, 214, 219, 221, See agricultural, 7, 25, 214, See methane, See nitrous oxide, See emissions: agricultural, See also enteric fermentation
carbon dioxide, xiv
energy sector, 197
food waste, 136, See emissions: from food waste
fossil fuels, 15, 195
greenhouse gases (cont.)
from foods, 29, 102, 126
methane, xiv
nitrous oxide, xiv
transport, 193
grindadrap, 83, See also dolphin hunting
grocery list, 119, 139, 224
guidelines, dietary, 19–32, 80, See dietary guidelines
gyres, 45, See also ocean currents
H₅N₁, 11, See also pandemics, See bird flu, See flu virus
habitat, ocean, 23–24, 29, 33–34, 48, 111, 167, 221, See also ocean habitat
halogen light bulbs, 198, See also light bulbs
hand sanitizer, 4, See also PPE – personal protective equipment
Hawaii, 196, See also geothermal energy
health
cardiovascular, 87, 130, 186
heart disease, xii, See chronic disease
heat-reflecting film, 197, See also energy use: how to reduce
heat sink, 24, See also oceans as heat sink
hemp, 129, 132, See omega-3-plant-based, See also linen, See also fiber, natural
Hendrik Baekeland, Leo, 40, See plastics
hens, 125, See also concentrated animal feeding operation (CAFO)
egg-laying, 125, See also battery cages
herds, elephant, 58, See also elephant herds
herring, 36, See also fish, wild-caught
Hindu temple, 78
hormones, 113
dairy, 113, See also milk: cow’s, See also dairy: milk
horn, rhinoceros, 60, See also rhinoceros horn
Huffington Post, 75
Hugo, 73, See also Lolita, See also Tokitae,
See also Miami Seaquarium
human–elephant conflict, 57, See also
elephant–human conflict, See also conflict: human–elephant
humans, 49, See also predators, ocean
humidity, 5, 205, See also climate change, See also water cycle
hunting
dolphins, 75–77, 90, 94, See also dolphin: captive selection, See also dolphin hunting
dolphins, pilot whales, 83
elephants, 94
elk, 201
endangered species, 54
hurricane, 219, See also weather extremes
hydroelectric energy, 196, See also renewable energy
hypertension, 20, See also chronic disease
IAPF – International Anti-Poaching Foundation, 88, See Mander, Damien
Iceland, 71, 162, 196, See also
glacial melting, 162
illness, foodborne, 11, See also foodborne illness
immune system dysfunction. See also persistent organic pollutants (POPs): health effects
incandescent light bulbs, 198
India, 12, 78, 189, 208
Kerala, 78
elephant rides, 78
elephant torture, 78
indigenous people, 39, 74, See also
Native Americans
Cree First Nations, 39
Lummi Nation, 74
Indonesia, 24, 88, 91, 93, 189, 208
Bali, 88
Maldives, 93, See also Maldives: manta rays
palm oil, 91, 208
311 / Index

industrial textiles, 136
industrial facilities, 174
composting, 176–179, See also composting
industrial farming, 152, See also industries: farming
industrial fishing, 56, 190, See overfishing, See also industries: fishing, See also fishing methods
industries entertainment, 62, 72
animal, 62, 72, See also captivity industry
industries agriculture, 26
animal agriculture, 26
automotive, 52
dairy, 27
entertainment, 62, 72
animal, 62, 72
farming, 5
fishing, 23, 46, 191
food, 27–28
manufacturing, 52, 136
meat, 27
plastics, 43, 52, 143
tourism, 46
industries manufacturing, 52
industries plastics, 52
industries fishing, 23
infectious disease, 9–12, 16, 67, 105
inflammation, 114, 130, See also chronic disease
influenza. See also pandemics
Institutes of Health, National, 133, See also National Institutes of Health
insulation, window, 197, 232
intelligence in animals dolphins, 77
elephants, 78
intensive farming, 123, See farming: intensive
International Food Policy Research Institute (IFPRI), 37, See IFPRI – International Food Policy Research Institute
International Union for Conservation of Nature (IUCN), 34, 212, See IUCN – International Union for Conservation of Nature
invasive species, 56
IPCC – Intergovernmental Panel on Climate Change, 34, 101
Ireland, 165
Ishii, 94, See also Japan: Ishii
island nations, low-lying, 15
Maldives, 15
Solomon Islands, 15
Italy, 161, 189, 192, 197
Milan, 192
Venice, 3, See also Venice, Italy
critically endangered, 34, 37, 60, 63, 65, 69, See also endangered species
endangered, 60
least concern, 60
threatened, 34, 55–56, 60, 64
vulnerable, 60, 64
ivory, 56, 63, 66, 82, 94, See also animal products, See also hunting: elephants, See black-market trade
ban, 56
illegal, 56, 63, 82
legal, 56
ivory, elephant, 56
Japan, 12, 75, 83, 90, 94, 162, 189, 197
captivity industry, dolphin, 75
dolphin hunts, 75, See also Taiji
Japanese (cont.)

Films

*Cove, The, 75, See also films: Cove, The*

Futo, 94

Hunting dolphins, 75

Whales, 75

Ishii, 94

Dolphin watching, 94, See also ecotourism

Hunting dolphins, 94

Taiji

Dolphin slaughter, 75

Whaling, 83, See also Sea Shepherd Conservation Society

Jarring, 146, See also food storage

Kedan, Ilan, 131, See also cardiologist, See also Cedars Sinai Medical Center

Kennedy, John F., 5

Kenya, 58–59, 63, 81–83, 196, 280, See also geothermal energy

Kenya Forest Service, 81, See also Sheldrick Wildlife Trust

Kenya Wildlife Service, 81, See also Sheldrick Wildlife Trust

Nairobi, 81

Ol Pejeta Conservancy, 59

Kerala. See also India

Keratin, See also rhinoceros horn, See also pangolin scales

Horn, rhinoceros, 60

Pangolin scales, 60

Keystone species, 94, See also species, keystone

Kidney disease. See also chronic disease

Killer whales, 61, 73, See also orcas

Knost, L.R., 80

Koalas, 84, See also wildlife: Australia, See also endangered species

Korea, 85, See also South Korea

Latin America, 6, 136–137, See also South America

Laundry, 179

Laundry, plastic fibers, 211, 234

Leading causes of death, 18, 105–109, 111, See also chronic disease

Leather, 66, See also animal products

LED – light emitting diode, 198, See also light bulbs

Lewis Pugh Foundation, 91

30 x 30 campaign, 91

Antarctica 2020 campaign, 91

Arctic Decade campaign, 91

Light bulbs

CFL – compact fluorescent bulbs, 198

Incandescent, 198

LED – light emitting diode, 198

Light-emitting diode (LED), 198

Linen, 212, See also flax, See also fiber, natural

Lions, 62, 90, 220, See also performing animals: lions, See also endangered species

Listeria, 11, See also foodborne illness

Liver dysfunction. See also persistent organic pollutants (POPs): health effects

Lolita. See also Miami Seaquarium, See also Tokitae

London, 193, See also England, London, See also cities: walkable

Low-E glass, 197, See also energy use: how to reduce

Lummi Nation, 74, See also Native Americans

Maldives, Indonesia, 15, 93

Manta rays, 93

Hunting, 93

Malinois, Belgian. See also Belgian Malinois

Malnutrition, 2, 6, 8, 15, 17, 48, 98, 132, 219

Hunger, 2, 6–7, 14–15, 17, 26, 36, 67, 111, 137

Starvation, 6, 14, 17, 45, 47–48, 61, 77–78
stunting, 6
underweight, 6
Mandela, Nelson, 188, 214
Mander, Damien, 88, See also
Akashinga, See also IAPF
manta rays, 93, See gill plates, See also
films: Racing Extinction, See also endangered species
hunting, 81, See also Philippines, See also Maldives, Indonesia
marine amusement park, 4, 70, 72, See also abuse, animal, See also aquarium, See also captivity
marine animals. See also predators, ocean
markets, Asian, 55, See also Asian markets
markets, farmers. See also farmers markets
marmite, 115
masks, 4, See also PPE – personal protective equipment
mass, biological. See biomass
matriarchs, elephant. See also elephant
matriarchs
Mead, Margaret, 98
meat, 8, 66, See animal products
chicken, 26
poultry, 163
processed, 8, See animal products, See processed meat
red, 6, 163
beef, 6
pork, 6
Medical Center, Cedars Sinai, 131, See also Cedars Sinai Medical Center
medicine, Asian, 59–60, See medicine, Eastern
medicine, Chinese, 59, See also Chinese medicine
medicine, Eastern, 59–60, See medicine, Asian
Mediterranean diet, 29
menhaden, 36, See also fish, wild-caught
MERS – Middle East respiratory syndrome, 2, See also coronaviruses
methane, 7–8, 13, 52, 102, 135, 142, 151, 153, 176, 213–214, See also greenhouse gases
Mexico, 83, 193, See also vaquita, See also totoaba
Miami Seaquarium, 73, See also Tokitae,
See also Lolita, See also Hugo, See also marine amusement park, See also aquarium
microalgae, 207, See also oxygen production
microbeads, 48, See also plastic
microbeads and microplastics
micronutrients, 8, 152, See also vitamins or minerals
microplastics, 47–49, 211, See also plastics
migration
animal, 57, 76
human, 6, 8, 13, 17, 63, 189
Milan, 192, See also Italy: Milan
milk, 50, 112–113, See dairy cow’s, 112
minerals, 8, 109, 151–152
Midway Atoll, 45
monoculture farming, 9, 95, 159, See farming: monoculture
moths, silk. See also silk moths
mulberry leaves. See also silk moths
Mylar film. See also cassette
Nairobi, 81, See also Kenya, See also Sheldrick Wildlife Trust
nanoplastics, 47–48, See also microplastics
National Academy of Sciences, 15
National Academy of Sciences, Proceedings of the, 15
National Institutes of Health, 133
Office of Dietary Supplements, 133
National Park, Tsavo, 81, See also Tsavo National Park
Native Americans, 39, See also Cree First
Nations Prophecy, See also Cree First Nations, See also indigenous people
Lummi Nation, 74
natural fibers, 185, 208–209, 212, 234, See also fiber, natural
natural materials, 40, 46, 171, 234, See also natural fibers
NCD, 18, 20, 105, 107, 111, See also chronic disease, See nutrition-related chronic diseases
nervous system dysfunction. See also persistent organic pollutants (POPs): health effects
Nestle, Marion, 132–133
Netherlands, 189
nets, gill, 63
new diseases. See also emerging disease
New South Wales, 84, See also Australia, See wildfire: Australia
New York, 165, See also cities: New York
New Zealand, 84–85, 193, 196, See also geothermal energy
Newsom, Gavin, 152
nitrous oxide, xiv, 7, 102, 191, 209, See greenhouse gases
nondairy alternatives, 26, 87, 112, 115, 119, 135, 224, See also dairy replacements, See WhiteWave
nonprofit organizations, 88–89
4ocean, 88
5 Gyres Institute, 88
Akashinga, 88
Borneo Orangutan Rescue, 88
Bye Bye Plastic Bags, 88
Dolphin Project, 88
IAPF – International Anti-Poaching Foundation, 88
Lonely Whale Foundation, 88
Nature Conservancy, 88
Ocean Conservancy, 88
Oceana, 88
Parley for the Oceans, 88
Performing Animal Welfare Society (PAWS), 88
Sea Change Project, 88
Sea Shepherd Conservation Society, 88
Sheldrick Wildlife Trust, 88
Surfrider foundation, 88
Tikki Hywood Trust, 88
Trash Free Seas, 88
North Pole, 92, See also ocean: Arctic
northern white rhinoceros, 59, See also rhinoceros, See also endangered species, See also Sudan
novel disease, 10, 67, 107, See also emerging disease, See also spillover of infectious disease
nutrition transition, 107, 200
nutrition-related chronic diseases, 107
O’Barry, Richard. See also Dolphin Project
obesity, 49
ocean acidification, 15, 24, 29, 34–35, 48, 110
Arctic, 91, 190, 219, See also Arctic Ocean
Atlantic, 23, 219
dead zones, xiv, 15, 34–35
Pacific, 45, 55, 83
Southern, 91
ocean acidification, 15, 24, 29, 34–35, 48, 110, See also acidification, ocean
ocean currents. See also ocean currents
ocean dead zones, xiv, 15, 34–35
ocean habitat, 23–24, 29, 33–34, 48, 111, 167, 221, See also habitat, ocean
ocean predators, 49, See also predators, ocean
ocean, overfishing. See also overfishing
oceanic ecosystems, 56, See ocean habitat
oceans as carbon sink, 24, 34
oceans as heat sink, 24, See also heat sink
Ol Pejeta Conservancy. See also Sudan: northern white rhinoceros, See also Kenya
omega-3, 132–135
fish oil, 22, See also supplements: fish oil
fish-based, 129, 131–135
DHA, 132
EPA, 132
fish oil, 32, 129, 131, 133–135, See plant-based, 132, 135, 225
algae, 129, 131, 133–134
DHA, 132
EPA, 132
alpha-linolenic acid (ALA), 131–133, See omega-3: plant-based
chia, 132
flaxseed, 22, 38, 129, 132
hemp, 129, 132
walnuts, 129, 132
Orangutan Rescue, Borneo, 91, See also Borneo Orangutan Rescue
orangutans, 34, 79, 91, See also endangered species: orangutans
orca
Hugo, 73
Lolita, 73, See also Miami Sea Aquarium, See also Tokitae
Tilikum, 70
Tokitae, See also Miami Sea Aquarium, See also Tokitae
orcas, 49, See also predators, ocean
Southern Resident, 73, 196, See also plastics, bioaccumulation
organic farming, 123, 126–128, 151, 161, 225, See farming: organic organization, woman-run, 88, See also Akashinga, See also IAPF
Orlando, Florida, See also SeaWorld, See also Tilikum
orphans
due to AIDS, 88, See Akashinga
elephant, 58, 81, See also Sheldrick Wildlife Trust
orangutans, 91, See also Borneo Orangutan Rescue
rhinoceros, 81, See also rhinoceros orphans
outbreak, disease, 4, 8–9, 16, 37, 67, See also disease outbreak
overfishing, 20, 22–23, 32–34, 36, 80, 129, See also fish stocks, See fishing: unsustainable, See also fishing methods
overweight, 6, 194, 220, See also obesity
oxygen production, 207, See also plankton, See also microalgae
trees, 207, 233
Pacific Ocean, 45, 55, 83
palm oil, 91, 111, 203–204, 208, See also Indonesia, See also conflict: human–orangutan
deforestation, 204, 208
foods made with, 112
pandas, 62
pandemics, 2
bird flu, 11
COVID-19, 2
flu 1918–1919, 2
H5N1, 11
influenza, 2
Pangolin Men, See also Tikki Hywood Trust
pangolin scales, 60, See also black-market trade, See also poaching: pangolin, See also Eastern medicine, See also Asian medicine, See also Chinese medicine
pangolins, 89, 220, See also endangered species
Paris, 170, 193, See also France, See also cities: walkable
Paris Climate Agreement, 25, 86, 192, 204
PCBs – polychlorinated byphenyls, 49, 131, See also persistent organic pollutants (POPs)
pellets. See also plastic pellets and microplastics
Performing Animal Welfare Society (PAWS), 89
performing animals, 4, 79, 90, See also abuse, animal
bears, 79, 90
dolphins, 79
performing animals (cont.)
elephants, 79
gorillas, 79
lions, 90
macaques, 79
orangutans, 79
orcas, 79
tigers, 79
persistent organic pollutants (POPs), 37, 49, See also bioaccumulation

DDT – dichlorodiphenyltrichloroethane, 49
dioxins, 50
health effects, 50
behavioral, 50
endocrine, 50
fetal development, 50
immune, 50
liver, 50
nervous system, 50
possible carcinogen, 50
reproductive dysfunction, 50
skin, 50

PCBs – polychlorinated byphenyls, 49–50
PCDDs, 50
phthalates, 51
DEHP, 51
PHT, 51
plastics, 49
BPA – bisphenol A, 50
BPS – bisphenol S, 39
PE – polyethylene, 48
PET – polyethylene terephthalate, 48, 51
PS – polystyrene, 48, 50
PVC – polyvinyl chloride, 51
personal protective equipment (PPE), 3–4, 167, See also PPE – personal protective equipment

pH, ocean, 34
Philippines, 81, 196, See also manta rays, See also gill plates, See also geothermal energy

photodegradation, 46, See also ultraviolet (UV) radiation
photovoltaic cells, 195, See also renewable energy, See also solar energy, See also solar panels
phthalates, 50, See also persistent organic pollutants (POPs)
pigs, 7, 12, 220, See also emissions: agricultural, See also greenhouse gases: agricultural
pills, 130, See supplements
pilot whales, 83, See also dolphins, pilot whales, See also grindadrap, See also Taiji
pilot-whale hunting. See also dolphin hunting
planes, 191, See also transport: planes
plankton, 35, 47–48, 93, 207, See also zooplankton, See also manta rays, See also oxygen production
phytoplankton, 207
zooplankton, 93

diet, 15
omega-3, 131, 135, See also omega-3: plant-based protein. See also protein: plant-based
plastic bag ban, 165
cities, 165
Boston, 165
Boulder, 165
Chicago, 165
New York, 165
Seattle, 165
Washington, DC, 165

States, 165
California, 165
Connecticut, 165
Delaware, 165
Hawaii, 165
New York, 165
Oregon, 165
Vermont, 165
plastic microbeads, 48, See also microplastics
plastic pellets, 48, See also microplastics
plastics
bio-based, 174–178
biodegradable, 174, 178–181
BPS – bisphenol S, 50, See also persistent organic pollutants (POPs)
compostable, 174–181, See also plastics:biodegradable, See also plastics:bio-based
entanglement, 45, 47
seabirds, 47
sea turtles, 47
seals, 47
intestinal tracts, blockages, 47–48, See malnutrition
fish, 48
plankton, 48
seabirds, 48
sea turtles, 48
whales, 48
PE – polyethylene, 48, See also persistent organic pollutants (POPs)
PET – polyethylene terephthalate, 48, See also persistent organic pollutants (POPs)
PS – polystyrene, 40, 48, 50, 165, 177, See also persistent organic pollutants (POPs)
PVC – polyvinyl chloride, 51
reusable, 43, 148, 168–171
single-use, 169
plastics, bioaccumulation. See also persistent organic pollutants (POPs)
plastics, bio-based, 174
plastics, biodegradable, 174
plastics, single-use, 169
poaching, 63, 67, 92–95, 190
bears, 60
giraffe, 60
pangolins, 59
rhinoceros, 60, 63, See also bushmeat
sea turtles, see turtles, sea
sharks, 46, 56, 83, See fins, shark
tigers, 60
totoaba, 63
polar bears, 49, 62, 220, See also predators, ocean, See also endangered species:polar bears
policies, climate change, 188–191, 193, see also climate change policies
polystyrene. See also Styrofoam
population growth, 2, 6, 12, 16, 21, 27, 62, 102, 195
pork, 6, See meat:red, See meat:red:pork
possible carcinogens. See also persistent organic pollutants (POPs):
health effects
poultry, 6, 8, 11, 22, 163, See meat:
poultry, See animal products
chicken, 163
turkey, 163
PPE – personal protective equipment, 3–4, 167, See also plastics
face shields, 167
gloves, 4
hand sanitizer, 4
masks, 4
precipitation, 5, 205, See also climate change
predators, ocean, 49
dolphins, 49
humans, 49
orcas, 49
polar bears, 49
salmon, 49
sea lions, 49
seals, 49
sharks, 49
tunas, 49
premature death, 8, 105, 107, See also chronic disease
prevention
of chronic disease, 6, 20, 105, 129, 200
of pandemics, 2, 11, 67
Proceedings of the National Academy of Sciences, 15
processed meat. See animal products, See cancer
products, compostable, 171–181, 213, 229, See also compostable products
Project, Dolphin, 90, See also Dolphin Project
protein, 117
  animal, 6, 14, 23, 26, 107, 112, 200, 221–222, See also foods, animal-based
plant-based, 26, 100, 111, 116, 200
public health, 107, See also chronic disease
Puget Sound, 73–74
Salish Sea, 74
Pugh, Lewis, 91, See also Lewis Pugh Foundation
PVC – polyvinyl chloride, 51, See also persistent organic pollutants (POPs)
Queensland, Australia, 84, See wildfire: Australia
rain forest, xii, 9, 14, 39, 84, 190, 203–204, 207–208, 219
ratios
  fish in to fish out, 36
rays, manta, 93, See also manta rays recipes
  vegan, 118, 124
  vegetarian, 116, 118, 123
recommendations, dietary, 32, 80, See dietary guidelines
recycling, 39, 44–45, 153, 164–192, 213–214, 221
regenerative farming, 86, 123, 125–126, 128, 161–162, 177
regions
  Africa, 6
  Asia, 6, 44, 55, 59, 78, 93, 136, 185
registered dietitian, 7
regulations, environmental, 31, 97, 172, 188–190, 204, 212
rollback of, 97, 188–190, 204
renewable energy, 195
geothermal, 195
solar, 195
tidal stream, 195
wave, 195
wind, 195
replacing animal products, 112
reproductive problems. See also persistent organic pollutants (POPs): health effects
Rescue, Orangutan, 91, See also Borneo Orangutan Rescue
reusable, 172, 215, 229
reusable bags, 143–145, 165, 171, 226
reusable plastics, 148
rhinoceros, 34, 59, 220, See also endangered species
  northern white, 59, See also northern white rhinoceros
  southern white, 59
rhinoceros horn, 59–60, See also black-market trade, See also Chinese medicine
rhinoceros orphans. See also Sheldrick Wildlife Trust
rhinoceros poaching, 59, See also endangered species: rhinoceros
rising temperatures, 3, 5, 34–35, 67, 189–190, 206, 219, See climate change, See global warming
Risso’s dolphins, 75, See also Taiji, See also dolphin slaughter
ruminants, 7, See also cows. See also sheep, See also buffalo, See also enteric fermentation, See also emissions: agricultural
safety nets, 63–64, 189
cash transfers, 64, 93
food parcels, 64
loans, 93
Safran Foer, Jonathan, 19, 217
<table>
<thead>
<tr>
<th>Term</th>
<th>Page(s)</th>
<th>Cross-references</th>
</tr>
</thead>
<tbody>
<tr>
<td>salinization, soil</td>
<td>17, 205</td>
<td></td>
</tr>
<tr>
<td>salmon</td>
<td>49</td>
<td>See also farmed fish, See also predators, ocean</td>
</tr>
<tr>
<td>Salmonella</td>
<td>11</td>
<td>See also foodborne illness</td>
</tr>
<tr>
<td>Santayana, George</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>SARS – severe acute respiratory syndrome</td>
<td>2</td>
<td>See also coronaviruses</td>
</tr>
<tr>
<td>Scotland</td>
<td>192</td>
<td></td>
</tr>
<tr>
<td>seabirds</td>
<td>47</td>
<td>See also plastics:intestinal tracts, blockages, See also plastics:entanglement</td>
</tr>
<tr>
<td>sea-level rise</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>sea lions</td>
<td>49</td>
<td>See also predators, ocean</td>
</tr>
<tr>
<td>Sea of Cortez</td>
<td>63, 83</td>
<td>See also totoaba, See also vaquita</td>
</tr>
<tr>
<td>Sea Shepherd Conservation Society</td>
<td>63, 83–84</td>
<td>See also Watson, Paul, See also dolphin hunting:Grindadrap, See also Taiji</td>
</tr>
<tr>
<td>sea turtles</td>
<td>47–48, 61</td>
<td>See also Eastern medicine, See also Asian medicine, See also Chinese medicine</td>
</tr>
<tr>
<td>SeaWorld</td>
<td>70</td>
<td>See also animal entertainment, See also Tilikum, See also marine amusement park</td>
</tr>
<tr>
<td>seals</td>
<td>47, 49</td>
<td>See also predators, ocean</td>
</tr>
<tr>
<td>Seaworld, Miami</td>
<td>See also Hugo</td>
<td></td>
</tr>
<tr>
<td>Seattle</td>
<td>165, 193</td>
<td>See also Washington (state), See also cities:walkable</td>
</tr>
<tr>
<td>security</td>
<td>5</td>
<td>See food security</td>
</tr>
<tr>
<td>seeds</td>
<td>129</td>
<td></td>
</tr>
<tr>
<td>chia</td>
<td>129</td>
<td></td>
</tr>
<tr>
<td>flax</td>
<td>129</td>
<td></td>
</tr>
<tr>
<td>hemp</td>
<td>129</td>
<td></td>
</tr>
<tr>
<td>sequestration, soil carbon</td>
<td>104</td>
<td></td>
</tr>
<tr>
<td>Seuss, Dr.</td>
<td>173</td>
<td>Lorax, The, 173</td>
</tr>
<tr>
<td>shark finning</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>shark fins</td>
<td>55–56</td>
<td>See also black-market trade, See also shark-fin soup, See fins, shark</td>
</tr>
<tr>
<td>shark-fin soup</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>sharks</td>
<td>46, 49, 56–63, 94</td>
<td>See also predators, ocean</td>
</tr>
<tr>
<td>shearing, sheep</td>
<td>See also wool</td>
<td></td>
</tr>
<tr>
<td>sheep</td>
<td>213, 216, 220</td>
<td>See also wool, See also greenhouse gases, See also enteric fermentation</td>
</tr>
<tr>
<td>sheep shearing</td>
<td>See also wool</td>
<td></td>
</tr>
<tr>
<td>Sheldrick Wildlife Trust</td>
<td>58, 81, 83</td>
<td>See also elephant orphans</td>
</tr>
<tr>
<td>Sheldrick, Daphne</td>
<td>81, 217</td>
<td></td>
</tr>
<tr>
<td>ships</td>
<td>15, 147, 191</td>
<td>See also transport: ships</td>
</tr>
<tr>
<td>shopping</td>
<td>123, 128, 167, 180</td>
<td>See also fair trade, See ethical consumerism</td>
</tr>
<tr>
<td>shopping list</td>
<td>141, 225</td>
<td></td>
</tr>
<tr>
<td>silk</td>
<td>46</td>
<td>See also fiber, natural:silk</td>
</tr>
<tr>
<td>silk moths</td>
<td>213</td>
<td></td>
</tr>
<tr>
<td>silk, ahimsa</td>
<td>213</td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>skin problems</td>
<td>See also persistent organic pollutants (POPs):health effects</td>
<td></td>
</tr>
<tr>
<td>skins</td>
<td>66</td>
<td>See also animal products</td>
</tr>
<tr>
<td>Smith, Damu</td>
<td>181</td>
<td></td>
</tr>
<tr>
<td>smog</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Snake River dam</td>
<td>See also dams, See also orcas:Southern Resident</td>
<td></td>
</tr>
<tr>
<td>solar energy</td>
<td>195</td>
<td>See also renewable energy</td>
</tr>
<tr>
<td>solar panels</td>
<td>195</td>
<td>See also photovoltaic cells</td>
</tr>
<tr>
<td>Solomon Islands</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>soup</td>
<td>55</td>
<td>See also shark-fin soup</td>
</tr>
<tr>
<td>South America</td>
<td>6, 136–137</td>
<td></td>
</tr>
<tr>
<td>South Korea</td>
<td>83</td>
<td></td>
</tr>
<tr>
<td>Southern Ocean</td>
<td>91</td>
<td></td>
</tr>
</tbody>
</table>
Southern Resident killer whales (SRKW), 73, See also endangered species: orcas:Southern Resident
southern white rhinoceros, 59, See also rhinoceros:southern white, See also endangered species
species, invasive, 56, See invasive species
species, keystone, 94, See also keystone species
spillover of infectious disease, 10, 16, 67, See infectious disease, See disease outbreak
standard American diet, 15, 18, See diet:animal-based
Staphylococcus aureus, 11, See also foodborne illness
starvation. See also malnutrition
stereotypic behaviors, 62, See also captivity
storms, 219
strategies
coping. See also coping strategies
mitigation, 58, 159
straws, 171, See drinking straws
environmentally friendly, 171
metal, 171
natural materials, 171
plastic, 171
reusable, 171
Styrofoam, 162, 165, 168, 177, See polystyrene, See also polystyrene
Styrofoam ban
states, 165
Colorado, 165
Maine, 165
Maryland, 165
New Jersey, 165
Oregon, 165
Vermont, 165
subsidies, 28, 232
suburb, 206
Sudan
northern white rhinoceros, 59
sugarcane, 176, 178
sugar-sweetened, 28, 105, 200
sulfuric acid, 208
sun bears, 60, See also endangered species:sun bears, See also bear bile
superspreader locations, 87
supplements, 36, 200
companies, 135
fish oil, 22, 32, 36, 38, 129–133, 135
industry, 129
National Institutes of Health Office of Dietary Supplements, 133
omega-3, 129
studies of, 132
supplements, dietary, 133, See National Institutes of Health:Office of Dietary Supplements, See also Dietary Supplements
supply chains, 17, 27, 87, 126–127, 136–137, 159, 148, 158, See also food distribution disruptions, 17, 137, 139, 148
supply-chain disruptions, 87
surgery, 20
sushi, 116, 134
sustainable diet, 111, 157, 191, 203, 221
sustainable energy, 195, See also renewable energy
sustainable farming, 126
sustainable fish, 135
sustainable foods, 111, 126, 129, 154, 157, 191, 203, 221, See also sustainable farming, See also sustainable diet
sustainable tourism, 64, 93–94, 181–183, 230, See ecotourism
sustainably caught fish, 37, See also fishing:sustainable
sweat equity, 159
swim with dolphins, 74, See abuse, animal, See dolphin:captivity
systems, food, 6, See also farming, See also food systems
Taiji, 75, 83, See also films: Cove, The, See also dolphin hunting
dolphin
captive selection, 75
dolphin slaughter, 75
taxes, 28, 43
telecommuting, 86, 195
textiles, 44, 212–213, See also fiber, natural, See also fiber, synthetic, See industries:textiles
Thailand, 78, 189
elephant captivity, 78, See Asian elephants, See abuse, animal elephant rides, 78
tourism, 78
thermostat, 198, 232
Thunberg, Greta, 85
tidal stream energy, 196, See also renewable energy, See also underwater turbines
tigers, 60, 62, 79, 90, 220, See also endangered species
tiger bones, 60, See also Chinese medicine, See also Eastern medicine
tigers, wild, 60
Tikki Hywood Trust. See also Pangolin Men
tilapia. See also farmed fish
Tilikum, 70–73, See also SeaWorld, See also Iceland
tilling, 125, 128, See desertification, See farming:conventional
 tipping point, 3, 96, 191
tofu, 116, 119, 141
Tokitae. See also Miami Seaquarium, See also Lolita
topsoil loss, 125
totoaba, 63, 83, See also Sea of Cortez, See also vaquita, See also Chinese medicine
tourism, 46–47, 64, 73, 78, 93, 185, 230
ecotourism, 93–94, 181–183, 185, 230
sustainable, 64, 93–94, 181–183, 230, See ecotourism

trains, 191
transplant
organ, 133, 199–200
heart, 133
kidney, 199
transport. See also transportation sector
automobiles, 87, 147, 192–193, 210
bikes, 86, 192–194, 201, 222, 232
cars, 7, 15, 43, 86, 191
planes, 147, 191
ships, 15, 147, 191
trains, 191
transportation sector, 7, 15, 25, 29, 86, 100, 147, 191–193, 195
trophies, animal, 60
trouth. See also farmed fish
Trust, Sheldrick Wildlife. See also Sheldrick Wildlife Trust
Trust, Tikki Hywood. See also Tikki Hywood Trust
Tsavo National Park, 81

trains, 191
topsoil loss, 125

ugly fruits and vegetables, 142
ultraviolet (UV) radiation, 46, 210
underwater turbines. See also renewable energy
Index

underweight, 6
UNEP – United Nations Environmental Program, 32
UNFCCC – United Nations Framework Convention on Climate Change, 34
United Nations
CoP – Conference of the Parties, 54
Environmental Program, 32
FAO, 32
UNFCCC, 34
United Nations State of World Fisheries, 33
United States, 7–10, 12–13, 19–20, 28, 39, 43, 55, 60, 84, 100, 135–137, 158, 162, 185, 189, 191, 194, 219
New York, 13, 132, 165, 193
University, 186
Cornell, 15
New York, 132
of Arkansas, 36
of California, Los Angeles (UCLA), 155
untraining
of animals, 74, 91
urbanization, xii, 12–13, 15, 107, 158, 195, 206
USDA – US Department of Agriculture, 19, 28, 30, 160, see also dietary guidelines
vaccines, 3, 11, 24, 99
vaquita, 63, 83, 220, See also Sea of Cortez, See also endangered species: vaquita
vegan, 118, 124
vegemite, 115
vehicles, 191, 221
car, 7, 15, 43, 52, 86, 184, 191
motor, 41
truck, 45, 191
Venice, Italy, 3
veteran, 88
villages, xii, 13, 150
vineyards, 153
vitamins, 8, 109, 151–152
volunteering, 84, 87
voting, 98, 100, 172, 186, 188–191, 193, 197, 203, 222, 231
walnuts, 129, 132, See omega-3: plant-based
war, 17, 37, 88
warning
climate change, 3, See also climate change
Washington (state)
Seattle, 193
waste
hazardous, 189, 195, 209
wastewater, 35, 212, 215
effluent, 34, 208, 211, 213
treatment facility, 212
water
drinking, 136, 168, 170, 189, 208
fresh, 27, 103, 136
overextraction, 17
storage, 126, 152, 172
withdrawals, 27
water cycle, 205
water fountain, 170
Watson, Paul, 83–84, See Sea Shepherd Conservation Society
wave energy, 196, See also renewable energy
turbines, underwater, 196
weather extremes, 5, 137
drought, 5, 82, 84, 92, 159, 219, 149
floods, 5, 92, 219
hurricane, 74, 219
storms, 5, 47, 219
weather, erratic, 159, 219, See also weather extremes
web of life, 94–95
welfare, animal, 81, 87, 89–90, 203, 214, See also animal welfare
well-being
ecological, xiii, 18, 181–182
health, 152, 232
Western diet, 15, 18, See also standard
American diet, See diet:animal-based
wet markets, 2, 67
whalers. See hunters
whales, 45, 47–48, See also plastics:
entanglement, See also plastics:
intestinal tracts, blockages
whaling, 83
WhiteWave, nondairy company, 135, See also Danone, dairy company
wild animals, 66–67, 70
wild fish, 35
wildfire, 84, 219
Australia, vii, 84–85, 219, See Queensland, Australia
California, 219
Colorado, 219
Oregon, 219
Washington (state), 219
Wildlife Service, Kenya, 81, See also Kenya Wildlife Service
Wilson, E.O., 95
wind energy, 196, See also renewable energy
wind turbines, 196
wind speed, 5, See climate change
windmills, 196, See also renewable energy
window insulation. See also energy use: how to reduce
woman-run organization, 88
Wooden, John, 145
wool, 46, See also fiber, natural:wool
World Bank, 36
World Food Program. See also safety nets
World War II, 40, 52, 250
worms, silk. See also silk moths
Wuhan, China, 2, 67, See also COVID-19
yield, crop, 6, 14, 127, 151, 205
yield, maximum sustainable, 33
yogurt
dairy, 22, 26, 135
plant-based, 115, 117, 119, 224
Zimbabwe, 88–89
Harare, 89
Zambezi Valley, 88
zones, dead. See also dead zones
zoo, 62, See abuse, animal, See also captivity
zooplankton, 93
zoos, 4, 60, 62, 70, 72, 90, See also captivity