

INDEX OF SUBJECTS

A

acetabulum, 71, 487
 acromial process, 271, 273, 487
 actual diversity, 398
 adenosine diphosphate, *see* ADP
 adenosine triphosphate, *see* ATP
 ADP (adenosine diphosphate), 390, 487
 advanced characters, 55, 487
 aerobic metabolism, 391, 487
 age determination (dinosaur), 354–357
 Age of Dinosaurs, 204, 404–405
 akinetic movement, *see* kinetic movement
 Alexander, R. M., 361
 allometry, 351, 487
 altricial offspring, 230, 487
 Alvarez, Luis, 455
 Alvarez, Walter, 442, 454–455, 481
 Alvarezsauridae, 487
 alvarezsaurids, 168–169
 alveolus/alveoli, 487
 American Museum of Natural History, 422, 426, 432–433, 439–441
 ammonites, 464
 amnion, 76, 487
 Amniota, 76–77, 197
 amniote, 487
 anaerobic metabolism, 391, 487
 analog, 487
 analogous structures, 47, 49, 487
 anamniotes, 76, 487
 anapsids, 76, 487
 ancestral characters, 55, 487, *see also* primitive characters
 Andrews, Roy Chapman, 145, 422, 424
 angiosperms, 273, 407, 412, 414, 466–468, 487
 Ankylosauria
 body armor of, 268–269
 Borealopelta, 274–275
 braincase, 276
 clade of, 256
 cladogram of, 280
 defense, 276–278
 defined, 488
 demographics of, 269
 evolution of, 278–279
 feeding and diet, 260–272
 locomotion, 276
 smell, 268–271, 276

Zuul, 275–276
 Ankylosauridae
 characteristics of, 271–273
 cladogram of, 281
 defined, 488
 evolution of, 279
 ankylosaurids, 275–276
 anpsids, 76
 antediluvian period, 422, 488
 anterior position, 488
 antorbital fenestra, 80, 488
 Arbour, Victoria, 277
 Archibald, J. D., 467, 469
 Archosauria, 80, 88–90, 203, 488
 Archosauromorpha, 79–81, 488
 archosauromorphs, 401
 archosaurs, 203, 401
 artifacts, 395
 Asaro, Frank, 455
 ascending process of the astragalus, 488
 assemblages (fossil), 32, 377, 488
 asteroid, 488
 asteroid extinctions (dinosaur), 441–442, 454–462, 475–479, *see also* extinction hypotheses
 astragalus, 488
 atom, 488
 atomic number, 40, 488
 atoms, 40
 ATP (adenosine triphosphate) (ATP), 390, 488
 Avialae, 177, 184–187
 Avemetatarsalia, 89
 Aves, 180
 Avetheropoda, 152, 155–156
 Avialae, 180
 avian dinosaur extinctions, 473–474, *see also* birds
 birds
 background extinctions, 458, 488
 badlands, 19, 488
 Bakker, R.T., 295–296, 374, 376–377, 402, 414, 436–437, 439
 balance, 132–135
 Baldwin, E., 482
 barbs, 206, 488
 barbules, 206, 488
 barometric pressure, 488
 Baron, M., 98

Barrett, Paul, 98, 335–336, 406, 446–447
 Barrick, R., 383–384
 basal dinosauromorph, 101
 basal Iguanodontia, 337
 basal Ornithopoda, 336
 Bates, K. T., 236, 360
 beak, 489
 belief systems, 474, 489
 Bell, P. R., 162
 bennettitaleans, 403, 489
 benthic organisms, 464, 489
 Benton, M. J., 2, 104, 144, 395, 402–403, 444–445, 477–478
 Berman, D. S., 236–237
 Beurien, Karl, 435
 bidirectional respiration, 350
 Big Al, 142
 biogeography, 313, 489
 biomass, 415, 489
 biosphere, 2
 biostratigraphy, 28, 32, 489
 biota, 489
 biotic evolution, 45–46
 birds, *see also* avian dinosaur extinctions
 carpometacarpus, 208
 as dinosaurs, 197–198, 204–205, 432–440
 endothermy in, 373
 feet, 208
 flight musculature, 209
 furcula in, 153
 gastroliths in, 260
 large brains of, 207–208
 origin of flight, 185–198
 pneumatic bones in, 219, 226
 pubis, 244
 pygostyle, 208
 reasons for feathers, 105–108
 skeleton, 208–209
 and Theropoda, 180–204
 what makes a, 206–209
 Black Hills Institute of Geological Research (BHIGR), 16–17
 Blincoe, L. J., 482
 body fossil, 8, 489
 body fossil creation
 after burial, 9–11
 before burial, 8
 burial environment, 9
 body water, 385–386

- bokor (African)*, 363
 bolide, 454
 Bone Cabin Quarry, 432
 bone histology, 489
 bonebeds, 10, 308, 333, 489
 bones
 bird pneumatic, 208
 dinosaur, 352
 ectothermy and, 380–381
 fossilization of, 67
 hollow, 202
 mineralization of, 9–11
 predeceasing, 244–245
 Bourke, Jason, 382
 Bowring, Samuel A., 102
 Boyd, C., 335–336
 brachiosaurs, 232
 brain endocasts, 489
 brain size
 Ankylosauria, 276
 birds, 207–208
 Ceratopsia, 309–311
 dinosaur, 310, 351–352
 ectothermy and, 378
 Ornithopoda, 328–329
 Sauropoda, 222–223
 Stegosauria, 261–263
 braincase, 71, 489
 breathing
 dinosaur, 350–351
 ectothermy and, 378–379, 382
 Brooke, Richard, 422
 Brown, Barnum, 161, 426, 432–433
 Brown, Caleb, 269, 274
 Brusatte, Stephen, 92, 132, 152, 158, 445
 Bryant, L. J., 467
 Bucholtz, E., 262
 Buckland, William, 423
 Butler, Richard J., 335–336, 414, 445
- C**
 cadence, 258, 489
 calcareous nanofossils, 465, 489
 Camarasauromorpha, 231
 CAMP (Central Atlantic Magmatic Province), 403
 cannibalism, 139–141
 carapace, 274, 276
 carbohydrates, 489
 carbon dioxide (CO₂), 414, 480
 carbon-14 dating, 29–31
 Carnian pluvial episode, 104
 Carnian Stage, 100
 Carnosauria, 155, 157
 carpals, 71, 489
 Carpenter, Ken, 266–267
 carpometacarpus, 208, 489
- Carrano, Matthew, T., 444
 Carrier, D. R., 83
 casts, 11, 21–22, 489
 caudal ligaments, 222
 cellular respiration, 391, 489
 Cenozoic Era, 33, 204, 489
 census (dinosaur), 473
 Central Asiatic Expeditions, 422
 centrum, 69, 489
 Cephalochordata, 67
 Cerapoda, 252, 489
 Ceratopsia
 brains of, 309–311
 chewing food, 298–302
 cladogram of, 311
 defense, 308
 defined, 489
 derived characters, 296–298
 development, 305, 307
 eggs, 304–305
 evolution of, 312–316
 feeding and diet, 301–303
 fossil record completeness, 399
 locomotion, 303–304
 migration, 315
 sexual selection, 305–307
 social behavior, 305, 307–308
 Ceratopsidae, 314
 cervical ribs, 222
 Chapman, R., 295
 characters, *see also* derived characters
 advanced, 55, 487
 anatomical, 51–52, 490
 ancestral, 55, 487
 diagnostic, 52
 primitive, 55–56
 Charig, A., 105, 402
 Chasmosaurinae, 314
 cheek teeth, 247, 490
 cheeks, 247, 490
 chemistry basics, 40
 chest (Tetrapod), 71
 chewing food, *see also* teeth
 Ankylosauria, 272–273
 Ceratopsia, 298–302
 in dinosaurs, 247–249
 Hadrosauridae, 328
 in mammals, 246–247
 Mesozoic Era, 415
 ornithischia, 246
 Ornithopoda, 328–329
 Chiappe, L. M., 182
 Chicxulub (Mexico), 456–462
 Chin, Karen, 444
 Chinle Formation (North America), 102
 Chinsamy-Turan, Anusuya, 445–446
 chonanae, 75
- Chordata, 66–67
 chronostratigraphy, 490
 clades, 55, 490
 cladistic revolution, 431–440
 cladograms
 defined, 45, 52–55, 490
 versus evolutionary trees, 54
 and organic evolution, 55–56
 parsimony and, 58
 phylogenetic trees and, 57–58
 science of, 59
 cladograms (dinosaur)
 Ankylosauridae, 281
 Archosauria, 89
 Archosauromorpha, 80
 avialans, 187
 Ceratopsia, 311, 315
 Ceratopsidae, 314
 Chordata, 68
 Coelurosauria, 159
 dinosaur diversity, 398–399
 Dinosauria, 98–99, 115
 Dinosauromorpha, 91
 endothermy, 374–375
 Euryptoda, 280
 fish, 70
 Hadrosauridae, 339
 Iguanodontia, 337
 Marginocephalia, 286
 Neoceratopsia, 313
 Ornithischia, 246
 Ornithodira, 82
 Ornithopoda, 323–324, 336
 Pachycephalosauria, 293–294
 Paraves, 173
 prosauropod, 212
 Reptilia, 79
 Sauropoda, 218, 231
 Stegosauria, 279
 Tetrapoda, 75
 theropod, 121, 152
 Thyreophora, 256
 Clarke, Julia, 193, 446–447
 classification systems
 Linnaean phylogenetic, 422
 phylogenetic, 60
 clavicles, 490
 claws, 124–126
 Clemens, W.A., 442, 469, 475
 climates
 Cretaceous, 38
 Jurassic, 38
 Triassic, 37–38
 clumped isotopes, 385–386
 Coelophysoidea, 490
 Coelurosauria, 152–158
 coevolution, 412–414, 490

- Colbert, E. H., 236, 359
 collagen, 364–365
 collection process steps (fossil), 13–23, 490
 coloration (dinosaur), 311–312
 competitive edge, 402
 completeness of fossil record, 398
 Compsognathidae, 160–166
 computer-aided tomography (CT)
 for brain imaging, 310
 defined, 490
 ectothermy and, 382
 condensations, 197
 Confuciusornithidae, 187–188
 coniferous forests, 412–414
 continental drift, 33
 continental effects, 37, 490
 continental flood basalt extinctions (CFB),
 479–481
 contour feathers, 108
 convergent evolution, 156, 490
 Cope, Edward Drinker, 423, 428–429
 coprolites, 11, 444, 490
 coracoid, 71, 490
 coronoid process, 247, 490
 cost (dinosaur excavation), 22–23
 Courtillot, Vincent, 479–481
 coverage metric, 398
 crest (hadrosaurid), 329–332
 Cretaceous Period
 climate of, 38
 defined, 490
 dinosaur census, 473
 dinosaurs and plants, 412–415
 diversity of vertebrate faunas during,
 405–407
 early, 35
 endemism, 406
 geologic timeline, 33
 land bridge (Bering Straits), 406–407
 late, 35–37
 mammal evolution during, 476–478
 Cretaceous–Paleogene extinction (K-Pg)
 asteroid hypothesis, 454–457
 biological record of, 464–478
 defined, 454
 numbers of, 459
 ocean, 464–466
 terrestrial, 466–478
 Cretaceous–Tertiary boundary, 496
 Cretaceous–Tertiary extinction, 490
 Crichton, Michael, 364
 cropping, 491
 cropping skull part, 246
 crurotarsal ankle, 88, 90
 Crurotarsi, 80, 88–90, 491
 Cuppy, W., 482
 curation (fossil), 21–22, 491
 Currie, P. J., 106
 Curry Rogers, Kristine (Kristi), 238, 446–447
 cursorial hypothesis, 198, 491
 Cutler, W. E., 437
 cycadophytes, 407, 411–412, 491
- D**
Danger of Being too Clever, The, 264
 Darwin, Charles, 50
 dates and evolutionary rate, 102
 de Lapparent, A. F., 426
 de Queiroz, Kevin, 60
 decay reactions, 28–29
 Deccan Traps, 462–464, 481, 484, 491
 defense
 Ankylosauria, 276–278
 Ceratopsia, 308
 domes for, 291–292
 nodosaurids, 277
 Pachycephalosauria, 291–292
 Sauropoda, 228
 definition (phylogenetics), 60
 deinonychosaurs, 132–135, 169–171
 deltoid crest, 491
 dense Haversian bone, 491
 dental battery, 298, 491
 denticles, 491
 derived characters, 55–56, 75, 244–245,
 296–298, 491, *see also* characters
 determinate growth, 353
 detritus, 478, 491
 development
 Ceratopsia, 305
 hadrosaurid, 331
 Ornithopoda, 333–334
 Pachycephalosauria, 295
 Sauropoda, 228–230
 Stegosauria, 258–259
 developmental biology, 491
 D'Hondt, S. L., 462
 diagnostic characters, 52, 491
 Diapsida, 76–79, 491
 diastema, 246, 491
 digestive tract
 Ankylosauria, 273
 Ornithopoda, 328
 Pachycephalosauria, 288
 Sauropoda, 227
Digging Dinosaurs, 333
 digitigrade hands, 222, 224
 digitigrade limbs, 492
 digitigrade stance, 122–123
 dimensionless speed, 362
 Dingus, L., 398
 dinosaur bones
 age determination, 354–357
 growth trajectories, 356–357
 Haversian, 352–355
 importance of details in, 352
 locomotion, 361–363
 tonnage, 357–360
 zombie, 363–366
Dinosaur Heresies, 296, 414
 Dinosaur National Monument (Colorado), 236
 Dinosaur Renaissance, 427–428
 Dinosauria
 definition of, 92, 492
 diagnostic characteristics of, 91–93
 and dinosaur ancestry, 81
 early, 93–94
 evolution of, 97–101
 as new vertebrate class, 185
 Ornithischia and Saurischia pelvises, 95–96
 Ornithoscelida and Saurischia, 97–99
 Sir Richard Owen and, 424–425
 Dinosauriformes, 89
 dinosauromorphs, 89–92, 401, 403
 dinosaurs
 birds as, 197–198, 204–205
 boxer versus puncher, 428–429
 brains, 310, 351–352
 chewing food, 247–249
 coloration, 311–312
 demographics of, 398
 erect stance of, 81–84
 evolution of, 81–84
 extinctions, 472–473
 flowering plants and, 414
 of Mesozoic Era, 394–400
 naming of, 2
 paleobiology, 349–367
 perforate acetabulum, 81–82
 rapid pace of discoveries of, 2
 rarity of, 472
 “Sue”, 16–17
 weight estimation, 215–237
Dinosaurs Rediscovered, The, 145
 diphyletic origins, 423
 Diplodocoidea, 231–232, 238
 disarticulated bones, 8, 492
 disaster biotas, 476, 492
Discovering Dinosaurs, 440
 display (feather), 106–107
 display (sexual)
 coloration of, 144–145
 defined, 143
 intraspecific, 264
 Ornithopoda, 251, 333–334
 Pachycephalosauria, 291
 types of, 202–203
 distal direction, 492
 diversity (dinosaur)
 actual, 398
 ceratopsian fossil record, 399

- diversity (dinosaur) (cont.)
 cladistic estimates, 398–399
 Cretaceous, 405–407
 defined, 400, 492
 ecological, 473
 extinctions and, 472–473
 Jurassic Epoch, 404–405
 known, 398
 Late Triassic, 400–404
 paleoenvironments, 398–400
 tetrapod, 395
- DNA hybridization, 195, 492
- Dobzhansky, Theodosius, 63
- Dodson, P., 362, 398
- Dollo, Louis, 423, 430
- Dollo's Law of Irreversible Evolution, 430
- domes (Pachycephalosauria)
 for defense, 291–292
 for display, 291
- dominance (dinosaur), 402
- Dott, R. H., Jr., 482
- down, 492
- downy feathers, 108, 206
- dynamic similarity, 492
- E**
- Eagle, R. A., 385
- Early Cretaceous, 405
- ecological diversity, 473, 492
- ecospace, 476, 492
- ectothermy, *see also* endothermy
 bone histology, 380–381
 brains and, 378
 breathing and, 382
 clumped isotopes and, 385–386
 defined, 372, 492
 versus endothermy, 373–380
 geographic distribution, 379–380
 hearts and, 378
 metabolism strategies for, 386–388
 skulls and, 378–379
 stable isotopes and, 382–383
 teeth and, 385–386
 temperature measurements to determine
 rate of, 383–384
- edentulous theropods, 129–132
- Egawa, S., 93
- eggs
 Amniota, 76–77
 Ceratopsia, 304–305
 K-strategy, 230
 maternal behavior, 145–147
 Ornithopoda, 333–334
 prosauropod, 215–217
 r-strategy, 229–230
 Sauropoda, 228
- electrons, 40, 492
- elements, 67, 492
- Enantiornithes, 190–191, 493
- encephalization, 493
- encephalization quotient (EQ), 351–352, 493
- endemic organism, 493
- endemism, 404, 493
- endocasts, 310
- endosymbionts, 227, 493
- endothermy, *see also* ectothermy
 birds and, 432–440
 cladograms, 374–375
 defined, 372
 definition of, 493
 in dinosaurs, 424–425
 versus ectothermy, 373–380
 locomotion, 376
 Ostrom and, 427–428
 predators and prey, 376–377
 types of, 373
- energy output
 cellular respiration, 391
 endotherms versus ectotherms, 373
- Enlightenment, The, 421, 493
- environment
 burial, 9
 paleo, 18, 398–400, 500
 Sauropod, 223
- epeiric seas, 38
- epicontinental seas, 33, 493
- EQ, 378
- eras, 32, 493
- erect stance
 defined, 493
 dinosaur feature, 81–84
 ornithomirans, 88
- Erickson, G., 162, 358
- esophagous, 493
- estivation, 493
- Euornithopoda, 322, 493
- Euryopoda
 Ankylosauria, 268–282
 cladogram of, 279–280
 defined, 256
 definition of, 493
 evolution of, 278
 Stegosauria, 257
- Eusauropods, 230–231
- eustatic sea levels, 33, 493
- Evans, David, 276
- Evo-Devo (evolution and development), 443, 493
- evolution
 Ceratopsia, 312–316
 convergent, 156
 dates and, 102
 definition of, 493
 Dinosauria, 97–101
- feather, 107–108
- Ornithopoda, 337–339
- Pachycephalosauria, 293–296
- Sauropod, 230–238
- Sauropodomorpha, 230–238
- secondary, 100
- Thyreophora, 278–282
- evolutionary biology, 443
- evolutionary theory, 46–47
- evolutionary tree
 cladograms and, 54, 57–58
 overview of, 47–48, 50
- exhumation (fossil), 13
- extant phylogenetic bracketing, 133
- extinction categories
 background, 458
 mass, 458–459
- extinction hypotheses, *see also* asteroid
 extinctions
 continental flood basalt (CFB), 479–481
 nonscientific, 482–483
 parsimony of, 475
 press-pulse, 481–484
 testability of, 474
- extinctions
 avian dinosaur, 473–474
 counting minimum dinosaur numbers and,
 472
 dinosaurs, 472–473
 evidence of sudden, 475–476, 478–479
 mammal, 469
 plant, 466–467
 proposed cause for, 477–478
 vertebrate, 467–469
 volcanic, 462–464
- extraterrestrial sources, 454, 493
- F**
- Farlow, J. O., 240, 265, 359
- Fastovsky, David, 398, 469
- fauna
 definition of, 494
 Late Triassic, 403–404
- Fayum Oasis (Egypt), 434–435
- feathers
 for display, 202–203
 endothermy and, 433–436
 evolution of, 245
 flight, 206
 for insulation, 202
 living birds components, 206
 origin of, 105–106
 ornithischian, 251
 reasons for without flight, 105–108
 theropod, 136, 144–145, 197–198
- feeding and diet
 Ankylosauria, 260–272

- Ceratopsia, 301–303
 endothermy and, 376–377
 Ornithischia, 246
 Ornithopoda, 326–328
 Sauropoda, 226
 Stegosauria, 259–261
- feet
 bird, 208
 Sauropoda, 222, 224
 theropod, 125
 three-toed theropod, 153
- femur, 71, 494
- fibula, 71, 494
- Field, Daniel, 196
- fit variant (organic evolution), 62
- fitness, 494
- flight feathers, 108, 206, 494
- flood basalt, 494
- flowering plants, 412, 414
- fluid dynamic analysis, 382
- flux, 494
- Folsom projectile point, 494
- footplate, 494
- footprints (trace fossil), 11, 494
- foramen magnum, 74, 494
- foraminifera, 464, 466, 494
- fossilization
 defined, 24, 494
 endpoint processes of, 9
- fossils
 birds, 196
 collection of, 13–23
 defined, 8, 494
 importance of sedimentary rock to, 394
 preparation and curation of, 21–22
 preparation of, 21–22
 preservation, 394
 types of, 8, 24
- fossorial ability, 494
- Fraas, Eberhard, 435
- fractionation, 382–383
- Fricke, H., 385
- frill, 298, 305–306, 308, 316, 494
- furcula, 153, 208, 494
- G**
- Galton, P., 374, 439
- gamete, 494
- Garbani, Harley, 19
- gastralia, 494
- gastroliths, 11, 214, 260, 301, 494
- Gauthier, Jacques A., 60, 185, 197, 432–440
- Genasauria, 251–252, 494
- genasaur, 317
- general character, 494
- generalist lifestyles, 476, 494
- generic name, 46, 494
- genotypes, 62, 494
- genus name, 46
- geochemistry, 495
- geochronology, 28–31, 495
- geologic time
 biostratigraphy, 32
 eras, periods, and epochs, 32–34
 geochronology, 28–31
 lithostratigraphy, 31–32
 plate tectonics and, 455
- geological preservation, 394
- ghost lineages, 399, 495
- ghost taxa, 439–441
- gigantism, 159
- gigantothermy, 386, 495
- Gilmore, C. W., 426
- girdles (anatomy), 71, 495
- gizzard, 495
- Glen Rose trackway sites, 223
- global extinction, 458–459
- glycogen, 262, 495
- glycolysis, 391
- Gnathostomata, 67, 495
- Gobi Desert, Mongolia, 164, 422, 439–441
- Godefroit, P., 245
- Golden Age of Dinosaurs, 412–415
- Golden Age of Paleontology,
 428–429
- Gondwana, 33, 495
- Goodwin, M. B., 293, 315
- grade (morphological stage), 200
- Grady, J. M., 387
- Granger, W., 426
- Great North American Dinosaur Rush,
 428–429
- greenhouse conditions, 38
- gregarious behavior, 263, 308, 495
- gregarious bonebeds, 11
- growth trajectories, 356–357, 381
- gut, 495
- gymnosperms, 214, 407–410, 495
- H**
- hadrosaurids, 326, 328–332, 339
- half-life, 29, 495
- Hallett, M., 220
- Halstead, L. B., 70
- hands
 Ornithopoda, 324–326
 prosauropod, 214
 Sauropoda, 222, 224
 theropod, 124–126
- hard tissue fossils, 8, 495
- hatch mark, 52
- Hatcher, J. B., 426
- Haversian bone, 352–355
- Haversian canals, 352, 495
- head butting behavior
 Pachycephalosauria, 291–292
 and sexual selection, 295–296
- hearing (theropod), 132
- hearts, 378
- heat capacity, 36
- Heilmann, G., 185
- Hell Creek (Montana), 432, 467, 475
- hemal arch, 495
- Hennig, Willi, 431, 440
- herbivores
 Ankylosauria, 273
 Ornithopoda, 322, 326–328
 Pachycephalosauria, 288
 plant, 407–414
 prosauropods as, 214
- Hernandez-Rivera, René, 19
- hesperornithiform, 190–193
- heterodontosaurids, 250–251
- hierarchy, 49–51, 56–57, 496
- high edemism, 404
- histology, 496
- Holiday, Casey, 382
- Holland, W. J., 236
- Holtz, Tom, 152, 181
- homeothermy
 defined, 372, 496
 teeth and, 385–386
 temperature measurements to determine
 rate of, 383
- homologous structures, 47–48
- homology, 47–49, 133, 496
- Hopson, J. A., 329–331, 352
- horn cores, 297, 496
- Horner, J. R., 141, 294–295, 333, 354, 365,
 437–438
- hornlets, 143, 496
- horns, 296–298
- How to Build a Dinosaur*, 365
- Humboldt Museum, 435–437
- humerus, 71, 496
- Huxley, T. H., 185
- hyoid bones, 272, 496
- hypothesis
 defined, 3
 proof in, 3–4
 testable, 3
- hypothesis of relationship, 58, 496
- I**
- Ibrahim, Nizar, 435
- ichnofossils, 11, 496
- Ichthyornithiformes, 193
- ichthyosaurs, 464–465, 496
- ilium, 71, 496
- immune responses (zombie), 364
- impact ejecta, 496

- impact winter, 459, 496
 indeterminate growth, 353
 insulation (feather), 106, 202
 intelligence, 351–352
 interspecific behavior, 496
 interspecific display, 305
 intraspecific behavior, 496
 intraspecific display, 264, 305
 iridium, 454, 456, 496
 iridium anomaly, 454, 457, 496
 Ischigualasto Formation (Argentina), 93, 102
 ischium, 71, 496
 isotopes
 defined, 496
 unstable, 28–29
- J**
- jacket (fossil), 20, 496
 Janensch, Werner, 436
 jaws
 akinetetic, 328
 Ceratopsia, 303
 and dinosaur chewing, 247–249
 heterodontosaurids, 250
 kinetic, 328
 Ornithopoda, 327–329
 theropod, 129–132
 Jehol Biota, 185, 188–189
 Jerison, H. J., 351, 378
 Jurassic Epoch
 climate of, 38
 defined, 496
 dinosaur diversity, 404–405
 early and middle, 33–36
 late, 35
 timeline, 33
Jurassic Park (movie), 375, 436–437, 442
- K**
- keel, 208, 497
 keratin, 248, 364, 497
 Kielen-Jawarowska, Zofia, 164
 kinetic movement, 328, 497
 known diversity, 398
 K-strategy, 230, 336, 496
 K/T boundary, 496
- L**
- lactic acid, 372, 497
 LAG, *see* lines of arrested growth
 Lagerstätte (Germany), 160
 Lambe, L. M., 140, 426
 Lambeosaurines, 497
 land bridge (Bering Straits), 406, 497
 Langer, M. C., 100
 Larson, Peter, 16–17
 Late Cretaceous, 406
 Late Devonian extinction, 459
 Late Jurassic, 405
 Late Ordovician extinction, 459
 Late Triassic, 400–404
 Laurasia, 33, 497
 leaf-shaped teeth, 288
 Leidy, J., 423
 Lepidosauromorpha, 75, 79, 497
 Li, Q., 199
 limbs (tetrapod), 71
 lines of arrested growth (LAGs), 354, 497
 Linnaean classification, 46–47
 Linnaeus, Carolus, 46, 78, 180
 Lipps, J., 470
 lithostratigraphy, 28, 31–32, 497
 local preservation, 394
 locality, 18
 locomotion, *see also* stance
 Ankylosauria, 276
 Ceratopsia, 303–304
 dinosaur, 361–363
 endothermy and, 376
 Ornithopoda, 323–324
 prosauropods, 215
 running, 81, 121–124
 Sauropoda, 220–224, 227
 Stegosauria, 258–261
 low edemism, 404
 lower temporal fenestra, 77–79, 497
 Lull, R.S., 426
 Lyell, Charles, 442
 Lyson, T. R., 476
- M**
- macroflora, 466
 Macronaria, 231
 Madill, Amelia, 276
 Main, R. P., 267
 mammals
 extinctions, 469
 food chewing, 246–247
 speciation and specialization in Cretaceous, 476–478
 mandible, 497
 mandibular foramen, 252, 497
 Maniraptora, 167–172
 Mantell, Gideon, 420
 Mantell, Mary Ann (Woodhouse), 420
 marginocephalia
 Ceratopsia, 296–316
 characteristics of, 252
 cladogram of, 286
 defined, 286, 497
 Pachycephalosauria, 286–296
 marginocephalian shelf, 291
 marine fossils
 Cretaceous Period, 464–465
 and evidence for asteroid extinctions, 478–479
 Marsh, O. C., 232, 236, 266, 423, 428–429
 mass extinctions, 402–403, 458–459, 497
 maternal behavior
 Ceratopsia, 317
 Ornithopoda, 339
 theropod, 145–147
 matrix (rock), 19, 497
 Matthew, W.D., 426
 Mayor, Adrienne, 420
 McIntosh, J. S., 236–237
 McKinney, M. L., 458
 MDT, *see* minimal divergence time
 media and science, 4–5
 megafloora, 497
 megaomnivore, 166–167
 melanosomes, 144, 311–312
 Meng, Q., 182
 mesotarsal ankle, 90, 497
 mesotarsal joint, 81
 mesothermy, 387
 Mesozoic Era
 climate of, 37
 defined, 497
 dinosaur geographic distribution, 394–400
 dinosaurs of, 394–400
 geologic time of, 33
 timeline, 34
 metabolism, 372, 386–388, 497
 metacarpals, 71, 498
 metapodials, 71, 498
 metatarsals, 71, 498
 Michel, Helen V., 455
 micropaleontologists, 464, 498
 microtektites, 456, 460, 498
 Middle Jurassic, 404–405
 migration, 315
mille annos (Ma), 29
 minimal divergence time (MDT), 399, 498
 minimum number (dinosaur), 472, 498
 Mitchell, Mark, 274
 mold (trace fossil), 11, 498
 molecular clocks, 194–195, 443, 498
 molecular evolution, 498
 monofilamentous feathers, 108
 monophyletic groups, 55, 498
 monospecific bonebeds, 10
 monotypic bonebeds, 333, 498
 morphology, 46, 498
 Morrison Formation (United States), 227
 mosasaurs, 464, 498
 multiple causes hypothesis (extinction), *see* press-pulse hypothesis
 mummies (hadrosaurid), 326
 muscle scars, 133

- musculature
 bird, 209
 theropod, 133
- N**
- nares, 74, 219, 498
 natural groups, 55
 natural selection, 62, 498
 neck (Sauropoda), 219, 226
 Neoceratopsia, 313
 neoceratosaurs, 156, 498
 neonates, 229
 Neornithes, 180, 190, 193–195
 Neornithischia, 251–252
 Neosauropoda, 231–232
 Neotheropoda, 152–154
 Nesbit, Sterling, 92, 448
 nests
 Ceratopsia, 306
 Ornithopoda, 333
 prosauropod, 215–217
 neural arch, 69, 498
 neurons, 40
 neutrons, 499
 node, 52, 499
 Nodosauridae
 Borealopelta, 274–275
 characteristics of, 271
 defined, 499
 evolution of, 279–282
 nodosaurids, 277
 nonavian dinosaurs, 2–3, 120, 499
 nondiagnostic features, 499
 Nopcsa, Franz Baron, 438
 Norell, Mark A., 439–441
 Norian Stage, 101
 Norman, D.B., 98
 notochord, 499
 nuchal ligament, 220, 499
 nucleus (atom), 40, 499
 nutrient cycling, 466, 499
 nutrient turnover, 380, 499
- O**
- obligate bipeds, 100, 121, 499
 obligate quadrupeds, 323
 occipital condyle, 71, 499
 occiput, 290–291, 499
 occlusion (teeth), 247, 499
 ocean extinctions, 464–466
 O'Connor, Jingmai, 448–449
 olfactory bulbs, 263, 499
On the Origin of Species, 47, 57, 61, 63, 181
Onchopristis (giant saw), 139
 ontogeny, 305, 307, 499
 opisthopubic orientation, 244, 499
 orbit, 74, 499
- organic evolution, 61–63
 organismic evolution, 46, 55–56
 Ornithischia
 Ceratopsia, 252
 defined, 499
 derived characters, 244–245
 feeding and diet, 246
 Genasauria, 251–252
 Neornithischia, 252
 primitive, 248–251
 Saurischia and, 95–96
 Thyreophora, 252
 Ornithodira, 80, 88–90, 499
 Ornithomimosauria, 129–131, 163–165
 Ornithopoda
 basal, 335
 basal Ornithopoda, 335
 brains of, 328–329
 cladogram of, 323–324
 defined, 499
 demographics of, 322
 display, 333–334
 evolution of, 337–339
 feeding and diet, 326–328
 limbs, 324–326
 locomotion of, 323–324
 maternal behavior, 333–334, 339
 phylogeny of, 322–323
 social behavior, 329–336
 Ornithoraces, 189
 Ornithoscelida, 97–99
 Ornithothoraces, 499
 Ornithurae, 500
 Ornithuromorpha, 190–194, 204–205, 500
 Osborn, H.F., 161, 163, 236
 ossification, 277
 ossified tendons, 324–325
 Osteichthyes, 67, 500
 osteoderms, 238, 257, 264–265, 291, 500
 Ostrom, John H., 181, 185, 374, 427–428, 439, 450
 Otero, A., 215, 217
 oviraptorosaurids, 131–132
 Owen, Sir Richard, 2, 322, 372, 424–425
 oxidation, 391, 500
- P**
- Pachycephalosauria
 brain size of, 288–290
 cladogram of, 293–294
 defined, 500
 development of, 295
 display features, 291
 dome for defense, 291–292
 evolution of, 293–296
 feeding and diet, 288
 global distribution, 287–290
 skeletal system of, 290–293
 social behavior, 291
 pack-hunting, 141–145
 Padien, K., 354, 404
 palate, 74, 500
 paleobiology (dinosaur)
 breathing, 350–351
 defined, 427, 500
 endotherms versus ectotherms, 372–373
 reasons for, 350
 paleobiology (warm bloodedness)
 cladogram, 374
 endotherms versus ectotherms, 373–380
 evidence for, 374–380
 paleobotanists, 407
 paleobotany, 500
 Paleocene, 466–468
 paleoclimates, 36, 500
 paleoenvironments, 18, 398–400, 500
 paleontology
 cost of, 22–23
 defined, 500
 finding fossils, 13
 scientific logistics of, 17–19
 paleontology history
 asteroid extinctions, 441–442
 baby boomer leaders in, 436–441
 beginnings of, 420–423
 birds and dinosaurs in, 432–440
 cladistic revolution, 431–440
 contemporary, 444–449
 early twentieth century, 425–431
 Ernst Stromer, 434–435
 Franz Baron Nopcsa, 438
 late twentieth century, 427–434, 442–444
 nineteenth century, 424–425
 seventeenth and eighteenth centuries, 421–422
 Tendaguru (Tanzania), 435–442
 Victorian, 422–430
 Paleozoic Era, 33, 500
 palpebral bone, 500
 palynoflora, 466, 500
 Pangaea, 33, 36, 101, 103, 404, 500
 parasagittal stance, 81–84, 402, 500
 parascapular spine, 500
 Paraves, 169–175, 203–204
 parsimony, 58, 500
 patellar groove, 500
 Paul, Gregory, 163
 pectoral girdle, 71, 500
 pectoralis muscle, 209, 500
 pedestal, 500
 peer-review process, 4
 pelvic girdle, 71, 500
 pelvis
 ornithischia, 244

- pelvis (cont.)
 retroverted, 159
 perforate acetabulum, 81–82, 93, 500
 perimineralization, 500
 periods (geologic), 33, 500
 permineralization, 10
 Permo-Triassic extinction, 459, 501
 Persons, W.S., 106
 phalanges, 71, 501
 Phanerozoic time, 501
 phenotype, 62, 501
 photosynthesis, 501
 phylogenetic bracketing, 133
 phylogenetic classification, 60
 phylogenetic systematics, 45, 48–49, 57–58, 501
 phylogenetic tree
 cladograms and, 57
 science of, 59
 phylogeny, 45–46, 501
 phylum, 501
 phytosaur, 501
 piscivorous diet, 138
 planktonic organisms, 464, 501
 planning (collection process), 13–19
 plant diversity, 412–415
 plant extinctions, 466–467
 plant herbivores, 407–414
 plantigrade feet, 222, 224, 501
 plantigrade stance, 124
 plate tectonics, 33, 41, 455
 pleisiosaurs, 464, 501
 pleurocoels, 154, 219, 226, 501
 pleurokinesis, 328, 501
 Plot, Robert, 422–423
 pneumatic bones, 208, 219, 226
 pneumatic foramina, 154, 219, 501
 pneumaticity, 374, 501
 poikilothermy, 372, 383–386, 501
 Popper, Karl, 3
 Powell, J. L., 455
 precocial offspring, 501
 predator/prey biomass ratio, 377, 501
 predeulatory bone, 244–245, 501
 preparation (fossil), 21–22
 preparation laboratory, 21, 501
 preparators, 21
 prepubic process, 501
 preservation (fossil), 394
 press-pulse hypothesis, 481–484
 primary bone, 352–353
 primary production (oceanic), 465
 primary productivity, 478–479, *see also*
 ancestral characters
 primitive characters, 55–56, *see also* ancestral
 characters
 processes (vertebral), 69, 501
 productivity, 502
 prosauropods, 212, 214–217, 502
 prospecting (fossil), 19, 502
 protons, 40, 502
 proximal direction, 502
 proxy, 373
 psaudosuchians, *see* dinosauromorphs
 Pterosauria
 defined, 502
 and dinosaur ancestry, 81
 pterosaurs, 97–100, 203, 401
 pubis, 71
 publis, 502
 pull of the Recent, 395, 502
 pygostyle, 187, 208, 502
- R**
- radiometric (numeric) dating, 502
 radius, 71, 502
 rarefaction, 398
 rate of decay reaction, 29–31
 Raup, D. M., 459
 Rayfield, E., 446
 recent time, 502
 recurved teeth, 128, 502
 Red Deer River (Alberta, Canada), 433
 regression, 502
 relationship
 defined, 46, 502
 determining, 47–50
 hypothesis of, 58
 and Linnaean classification system, 46–47
 relative dating, 32, 503
 remodeled bone, 352
 remodeling process, 352, 503
 renewable resources, 503
 replacement (bones), 9–11, 503
 Reptilia, 78–79, 503
 respiration, 391
 respiratory turbinates, 378, 503
 Retallack, G., 444
 retroverted pelvis, 159
 rhamphotheca, 248, 259, 503
 Richards, M. A., 455, 481
 Ricqlès, A. de, 354
 Ridgely, R. C., 132
 Riggs, E. S., 236
Rise and Fall of Dinosaurs, The, 92
 Robertson, D. S., 460
 robust anatomy, 503
 robust hypothesis, 503
 rock, 503
 Rogers, R., 385
 rostral bone, 297, 299, 503
 Rozhdestvensky, A.K., 426
r-strategy, 229–230, 336, 502
 Ruben, J. A., 374, 378
- running
 dinosaurs, 81
 theropod, 121–124
 Rutherford, Ernest, 419
- S**
- sacrum, 71, 503
 Sadler, P.M., 398
 Saharan dinosaurs, 434–435
 Sakamoto, M., 406
 Sarcopterygii, 67, 503
 Saurapoda, 503
 Saurischia, 95–99, 114, 202, 503
Sauropod Dinosaurs, The, 220
 Sauropoda
 brain size of, 222–223
 cladogram of, 218
 defense, 228
 defined, 217
 environment of, 223
 evolution of, 230–238
 feeding and diet, 226
 growth and development of, 228–230
 high-browsing morphology of,
 223–226
 locomotion, 227
 morphology of, 218–224
 skeletal system of, 219
 skull, 218–220
 social behavior of, 227–228
 teeth, 218–219
 types of, 223–226
 Sauropodomorpha
 definition of, 212–213
 demographics of, 212
 evolution of, 230–238
 as one of first dinosaurs, 213–214
 phylogeny of, 98
 Scansoriopterygidae, 172–177
 scapula, 71, 503
 scenario (evolutionary tree), 54
 Schoene, Blair, 463, 481
 Schuchert Award, 449
 Schweitzer, Mary H., 364, 443
 science
 chemistry basics, 40
 hypotheses in, 3
 paleontological logistics, 17–19
 phylogenetic systematics and, 59
 in popular media, 4–5
 testing proof in, 3–4
 sclerotic rings, 330, 503
 scutes (bony plates), 252, 503
 seasonality, 37, 503
 secondary bone, 352, 503
 secondary evolution, 100, 503
 secondary palate, 75, 272, 503

- sedimentary rock
 defined, 503
 finding fossils in, 13
 limitations of, 394
 right rocks for fossils, 18
 sedimentologists, 18, 503
 seed, 407, 503
 Seeley, H. G., 95–96, 114, 249, 423, 431
 Sellers, W. I., 363
 semi-lunate carpal, 168, 503
 senses
T. rex, 162
 theropod, 131–135
 tyrannosaur, 132–135
 Sepkoski, J. J., 459
 Sereno, Paul, 441
 sexual dimorphism
 Ceratopsia, 305–307
 defined, 143, 504
 hadrosaurid, 331
 Pachycephalosauria, 291
 prosauropod, 215
 Stegosauria, 263
 sexual selection
 Ceratopsia, 305–307
 defined, 143, 504
 hadrosaurid, 329–331
 Pachycephalosauria, 291
 theropod, 142–145
 shaft, 504
 Sheehan, P. M., 460, 469
 shocked quartz, 456–462, 504
 short-frill, 314
 Showers, W., 383–384
 Shubin, Neil, 71
 Shultz, P. H., 462
 sigmoidal shape, 504
 Signor, P., 470
 Signor–Lipps Effect, 469–471
 silesaurids, 99–101
Sin in the Sediment, 482
 sinus cavity, 504
 skeletal system
 bird, 208–209
 defined, 504
 Dinosauria pelvises, 95–96
 for erect stance, 81–84
 heterodontosaurids, 249
 ornithischian, 251
 Pachycephalosauria, 290–293
 Sauropoda, 219–224
 tetrapod, 71–72
 skin impression fossils, 8
 skull
 Ankylosauria, 270
 Archosauromorpha, 80
 Borealopelta, 274
 Ceratopsia, 296–300
 defined, 504
 ectothermy and, 378–379
 hadrosaurid, 332
 mammal, 248
 mammalian, 246–247
 ornithischian, 251
 Ornithopoda, 338, 340
 Pachycephalosauria, 289
 prosauropod, 215
 Sauropoda, 218–220
 Stegosauria, 261
 tetrapod, 71–75
Titanosaur, 229
Triceratops, 301
 Zuul, 275
 skull roof, 74, 504
 smell
 Ankylosauria, 268–271, 276
 olfactory bulbs, 263
 Pachycephalosauria, 288
 theropod, 132
 Smith, John Maynard, 264
 social behavior
 Ceratopsia, 305, 307–308
 Ornithopoda, 329–336
 Pachycephalosauria, 291
 prosauropod, 215
 Sauropoda, 227–228
 Stegosauria, 263
 soft tissue, 504
 soft tissue fossils, 8
 specializations (species), 476, 504
 speciation, 476
 species name, 46
 species specific characteristics, 264, 504
 specific name, 46, 504
 speed, *see* locomotion
 sphenopsid plant, 504
 spines and plates (Ornithopoda), 333
 Sprain, Courtney, 463
 sprawling stance, 88, 504
 stable isotopes, 382–383, 504
 stance, *see also* locomotion
 digitigrade, 122
 endothermy and, 375–376
 evolution of, 83
 parasagittal, 402
 plantigrade, 124
 stapes, 74, 504
 statistics, 443, 472
 Stegosauria
 braincase of, 261–263
 characteristics of, 257–259
 cladogram of, 279
 defined, 504
 development of, 258–259
 evolution of, 278–280
 feeding and diet, 259–261
 locomotion, 258
 phylogeny of, 256
 plates and spines of, 264–265
 skull, 261
 social behavior, 263
 thermoregulation in, 265–267
 Sternberg, Charles H., 426
 Sternberg, R. M., 426
 sternum, 504
 Steward, Thomas, 197
 Strangelove oceans, 466
 strata, 28, 31, 504
 stratigraphy
 defined, 28, 504
 divisions of, 28
 Strauss, D. J., 398
 stride length, 361
 Stromer, Ernst, 434–435
 styliform element, 174
 subatomic particles, 40, 504
 substitutions (DNA rate), 195, 504
 Sue (*Tyrannosaurus rex*), 16–17
 Sues, H.-D., 290
 sulfur dioxide (SO₂), 480–481
 superposition, 504
 supracoracoideus muscle, 209, 505
 survivorship patterns, 467, 469, 485, 505
 Synapsida, 76–78, 505
 synsacrum, 208, 505
- T**
 tactile organs (feather), 106
 tail
 Ankylosauria, 277–278
 sauropod, 225–226
 Sauropoda, 225
 theropod, 153
 tail-club, 277–278
 taphonomy, 18
 tarsals, 71, 505
 tarsometatarsus, 208, 505
 taxa, 46
 taxon, 46, 505
 Taylor, Bert L., 264
 tectonic activity, 38, 505
 teeth, *see also* chewing food
 Ankylosauria, 270, 272–273
 bite lack of, 208
 cheek, 247
 dental battery, 298
 ectothermy and, 385–386
 heterodontosaurid, 250–251
 leaf-shaped, 288
 Ornithopoda, 327
 Pachycephalosauria, 290

- teeth (cont.)
 prosauropod, 216
 recurved, 128
 Sauropoda, 218–219, 226–227
 Stegosauria, 259–260, 262
T. rex, 162
 theropod, 126–128
 tyrannosaururoid, 129
 temnospondyl, 379, 401–402, 505
 temporal fenestrae, 76–77, 505, *see also* upper temporal fenestra
 temporal time, 505
 terrestrial organisms, 478–479
 terrestrial dinosaurs
 evidence for asteroid extinctions, 478–479
 logistics of finding, 18
 terrestrial life, 505
 testable hypothesis, 3, 59, 474, 505
 Tetanurae, 152–155, 505
 Tethyan Seaway (Greek), 505
 Tethys Ocean, 35
 Tetrapoda
 definition of, 69
 derived features, 75
 diversity, 395
 defined, 505
 limbs, 71
 skeleton components, 69–75
 sprawling stance, 83
 Thecodontia, 97, 505
 Theropoda
 balance of, 132–135
 and birds, 180–204
 brain function, 135
 cannibalism, 139–141
 carnivorous characters of, 120
 convergent evolution, 155–158
 dimensionless speed, 362
 evolution main events, 152
 feathers, 136
 feathers for insulation in, 202
 feathers in, 197–198
 feet, 125
 hands, 124–126
 jaws, 129–130
 maternal behavior, 145–147
 pack-hunting, 141
 prey and predators, 136–139
 running, 121–124
 senses, 131–135
 sexual behavior, 142–145
 teeth, 126–128
 toothless, 129–132
 therapsids, 401, 505
 therizinosaur, 168, 415
 thermoregulation
 defined, 265, 505
 Stegosauria, 265–267
 thorax, 505
 Thulborn, R. A., 362
 Thyreophora
 cladogram of, 256
 defined, 256, 505
 Euryopoda, 257–263
 evolution of, 278–282
 as ornithischian, 252
 phylogeny of, 251
 primitive, 256–257
 tibia, 71, 505
 timeline and molecular clocks, 194–195
 titanosaurs, 229, 232–238
 tonnage (dinosaur), 357–360
 toothless theropoda, 129–132
 trace fossils, 8, 11–12, 505
 trachea, 505
 trackways, 11, 123, 141, 215, 222, 361–363, 506
 transgression, 506
 Triassic Epoch
 climate of, 37–38
 defined, 506
 Pangaea, 33
 time scale, 102
 timeline, 33
 Triassic–Jurassic mass extinction, 459
 trichomonas gallinae, 142
 triosseal foramen, 209, 506
 tripodal stance, 225–226
 Troodontids, 171–175
 tubercles, 506
 turn (a fossil), 506
 tympanic membrane, 74, 506
 Tyrannosauroida, 159
 Tyrannosaurus Sue, 357
- U**
 ulna, 71, 506
 unaltered mineralogy, 506
Unearthing the Dragon, 440
 ungual phalanges, 71, 506
 unidirectional respiration, 350–351
 unstable isotopes, 28–29, 506
 upper temporal fenestra, 79, 506, *see also* temporal fenestrae
- V**
 vane, 206, 506
 Varrachio, D., 141
 vascular plants, 407
 vascular system, 506
 vertebrae, 69
 vertebral column
 components of, 69–71
 defined, 506
 Pachycephalosauria, 291
 Sauropoda, 220–222
 Vertebrata, 67–70, 506
 vertebrate extinctions, 467–469
 vestigial limbs, 126
 Vinther, Jakob, 144
 viruses, 66
 vision, 132, 135
 volcanism, 462–464, 479–481
 von Branca, Wilhelm, 435–436
 von Huene, Friedrich, 423, 431
- W**
 Wadi el Natrum (Egypt), 434–435
 Wagner, G. P., 197
 Walker, C. A., 190
 Wang, S. C., 398
 Waterhouse Hawkins, Benjamin, 423, 426–427
 weathering (bone), 9, 14, 506
 Wedel, M., 220
 weight estimation, 215–237
 White, P., 472
 Wieland, G. R., 424
 William of Ockham, 58
 Williams, Maurice, 16–17
 Willis, K., 402
 Wilson, G. P., 469
 Witmer, L. M., 132
- X**
 Xing, Xu, 136, 162, 436–440
- Y**
 Young, C. C., 426
- Z**
 Zanno, Lindsay, 159, 446–448
 Zelenitsky, Darla, 446–447
 ziphodont teeth, 121
 zombie dinosaurs, 363–366
 Zuul, 275–276
 zygapophysis, 153, 506

INDEX OF GENERA

A

Acanthostega (*akantho* – spine; *stega* – roof, cover), 69
Achelousaurus (after Achelous, a Greek mythological river deity; *sauros* – lizard, reptile), 300, 383
Achillonychus (*Achillo* – after Achilles, the Greek hero; *onycho* – claw, nail), 440
Aegyptosaurus (Egypt's lizard; *sauros* – lizard, reptile), 434
Aerosteon (*aeros* – air; *osteon* – bone), 154
Afrovenator (*afro* – after Africa; *venator* – hunter), 158, 441
Agilisaurus (*agilis* – nimble; *sauros* – lizard, reptile), 323, 335, 337
Alamosaurus (after the Ojo Alamo Formation (Texas); *sauros* – lizard, reptile), 234, 238
Albertosaurus (after Alberta (Canada); *sauros* – lizard, reptile), 159, 161–163, 356
Alioramus (*ali* – other; *ramus* – branch, as in another branch of tyrannosaurids), 143
Allosaurus (*allo* – other, different; *sauros* – lizard, reptile), 23, 113, 122–123, 125–127, 129–130, 137, 142–143, 155, 157–158, 177, 376, 428, 458
Allosaurus fragilis, 122
Amargasaurus (after Amarga Canyon, Neuquen Province (Argentina); *sauros* – lizard, reptile), 235, 238
Ammosaurus, 115
Amphioxus, 67
Anchiornis (*anchi* – close; *ornis* – bird), 145, 171, 174–175, 197, 203, 311
Anchisaurus (*anchi* – close; *sauros* – lizard, reptile), 215
Ankylosaurus, 100
Anomospterus (*a* – without; *non* – law; *pteri* – fern, a reference to abundant growth), 408
Apatosaurus (*apato* – trick or false, because O. C. Marsh thought that the tail bones resembled those of a lizard, *sauros* – lizard, reptile), 96, 137, 219, 221, 223, 227, 230, 236–238, 381, 428, see also *Brontosaurus*
Apsaravis (*apsara* – winged consorts prominent in Buddhist and Hindu art; *aves* – bird), 440

Aquilapollenites (*aquila* – eagle; *pollenites* – pollen-like), 468
Araucaria (after Arauco Province (Chile)), 410
 arboreal hypothesis, 198, 488
Archaeopteryx (*archaeo* – ancient; *pteryx* – wing), 105, 145, 180–182, 184–187, 190, 197–198, 201, 204, 311, 356–358, 374, 450
Arcocanthosaurus, 143
Argentinosaurus (after Argentina; *sauros* – lizard, reptile), 236, 239
Arrhinoceratops (*a* – without; *rhinos* – nose, snout; *keras* – horn; *ops* – face), 300
Asilisaurus (*asili* – from the Swahili for ancestor; *sauros* – reptile, lizard), 91
Astrodon, 223
Auca Mahuevo (*Patagonia*), 228–229
Avaceratops (after amateur paleontologist Ava Cole, who collected the fossil; *keras* – horn; *ops* – face), 316

B

Bagaceratops (*baga* – small (in Mongolian); *keras* – horn; *ops* – face), 300, 313
Bahariasaurus (*bahariya* – Egyptian rock formation; *sauros* – lizard, reptile), 434
Baptornis (*bapto* – dipped, submerged; *ornis* – bird), 193
Barosaurus (*bary* – heavy; *sauros* – lizard, reptile), 23, 437
Baryonyx (*bary* – heavy; *onycho* – claw, nail), 136, 155–156
Beipiaosaurus (after Beipiao, Liaoning Province (China); *sauros* – lizard, reptile), 171
Blikanasaurus (from Bilikana (South Africa); *sauros* – lizard, reptile), 230
 Blincoe, L.J., 482
Borealopelta, 269, 274–275
 Bourke, Jason, 382
 Bowring, Samuel A., 102
 Boyd, C., 335–336
 brachiosaurs, 232
Brachiosaurus (*brachion* – arm; *sauros* – lizard, reptile), 220, 225, 227, 238–239, 405, 426, 437
Brachylophosaurus (*brachys* – arm; *lophos* – crest; *sauros* – lizard, reptile), 331, 340, 364
Brachyosaurus, 219

Brontosaurus (*bronto* – thunder; *sauros* – lizard, reptile), 212, 236–237, 432, see also *Apatosaurus*
Byronosaurus (from Byron Jaffe; *sauros* – lizard, reptile), 440

C

Caenagnathasia (*kainos* – recent; *gnathus* – jaw), 168
Caihong, 145
 calcareous nanofossils, 465, 489
 Camarasauromorpha, 231
Camarasaurus (*camara* – chamber; *sauros* – lizard, reptile), 216, 218, 220, 226–227, 232, 236–237, 405
 CAMP (Central Atlantic Magmatic Province), 403
Camptosaurus (*kamptos* – flexible; *sauros* – lizard, reptile), 337–338
 cannibalism, 139–141
 carapace, 274, 276
 carbohydrates, 489
 carbon dioxide (CO₂), 414, 480
 carbon-14 dating, 29–31
Carcharodontosaurus (*Carcharodon* – genus for the Great Whale Shark; *sauros* – lizard, reptile), 120, 126, 136, 155, 157, 161, 434, 441
 Carnian pluvial episode, 104
 Carnian Stage, 100
 Carnosauria, 155, 157
Carnotaurus (*carnis* – flesh, meat; *sauros* – lizard, reptile), 126–127, 129, 153, 155–158
 carpals, 71, 489
 Carpenter, Ken, 266–267
 carpometaacarpus, 208, 489
 Carrano, Matthew, T., 444
 Carrier, D. R., 83
 casts, 11, 21–22, 489
 caudal ligaments, 222
Caudipteryx (*cauda* – tail; *pteryx* – wing), 136, 169, 171–172
 cellular respiration, 391, 489
 Cenozoic Era, 33, 204, 489
 census (dinosaur), 473
 Central Asiatic Expeditions, 422
Centrosaurus (*centro* – center; *sauros* – lizard, reptile), 300, 306, 308–309, 313–314, 316

- centrum, 69, 489
Cephalaspis (*kephale* – head; *aspis* – shield), 68
 Cephalochordate, 67
 Cerapoda, 252, 489
 Ceratopsia
 brains of, 309–311
 chewing food, 298–302
 cladogram of, 311
 defense, 308
 defined, 489
 derived characters, 296–298
 development, 305, 307
 eggs, 304–305
 evolution of, 312–316
 feeding and diet, 301–303
 fossil record completeness, 399
 locomotion, 303–304
 migration, 315
 sexual selection, 305–307
 social behavior, 305, 307–308
 Ceratopsidae, 314
Ceratopsaurus (*keras* – horn; *sauros* – lizard, reptile), 127, 153–154, 498
 cervical ribs, 222
Changchengornis (Chang Cheng (Chinese) – Great Wall; *ornis* – bird), 187
Changyuraptor (long-feathered raptor (China)), 171
Chasmosaurus (*chasm* – ravine; *sauros* – lizard, reptile), 297, 299, 306, 308, 314, 316
Chindesaurus (from Chinde Mesa, Arizona; *sauros* – lizard, reptile), 102, 104
Chungkingosaurus (after Chungking (China); *sauros* – lizard, reptile), 262
Ciona, 67
Coelophysis (*koilos* – hollow; *physis* – nature), 22, 97, 102, 104, 127, 139, 142, 144, 147, 152–154
Coelurosauria (*koilos* – hollow; *sauros* – lizard, reptile), 152, 155–159, 185, 202, 374, 427
Coloradisaurus (after the Los Colorado Formation (USA); *sauros* – lizard, reptile), 215
Compsognathus (*compso* – neat, elegant; *gnathos* – jaw), 136, 160, 165, 376, 405
Confuciusornis (after the Chinese philosopher Confucius; *ornis* – bird), 145, 187–188, 381
Corythosaurus (*korytho* – from Corinthian, as in a Corinthian helmet (armor); *sauros* – lizard, reptile), 327, 329–331, 415
Cryolophosaurus (*cryo* – cold; *lophos* – crest; *sauros* – lizard, reptile), 143, 382
Cynognathus (*kyon* – dog; *gnathos* – jaw), 401
- D**
Dacentrurus (*da* – very; *kentron* – spine; *ura* – tail), 278
Daspletosaurus (*dasples* – frightful; *sauros* – lizard, reptile), 136, 142, 159, 162, 356
Deinocoelurus (*deino* – terrible; *cheirus* – hand), 164–167, 458
Deinonychus (*deino* – terrible; *onychos* – claw), 106, 125, 135, 153, 168, 182, 374, 427, 450
Deltadromeus (*delta* – delta; *dromeus* – runner), 441
Dicraeosaurus (*dikraios* – bifurcated; *sauros* – lizard, reptile), 437
Dicrodium (*dikos* – forked; *eidos* – similar to), 403
Dilong (emperor dragon (in Chinese)), 136
Dilophosaurus (*di* – two; *lophos* – crest; *sauros* – lizard, reptile), 143, 153–154, 376, 382, 458
Dimetrodon grandis, 77
Dimorphodon (*di* – two; *morphos* – shape; *don* – tooth), 402
Diplodocus (*diplo* – two, twin; *docus* – spar, beam), 98, 210, 216, 219–220, 227, 237–238, 405
Dreadnoughtus (*dreadnought* – English battleship), 234, 236–237, 239, 360
Dromaeosaurus, 129
Dromiceiomimus (*Dromiceius* – genus of emu (older nomenclature); *mimus* – mimic), 163
Dromomeron (*drom* – run; *meros* – femur), 104
Dryosaurus (*dryos* – oak; *sauros* – lizard, reptile), 333, 338, 437
Dryptosaurus (*drypto* – tearing; *sauros* – lizard, reptile), 159
Dynamosaurus imperiosus, 161
Dynamoterror, 159
- E**
Edmontonia (after Edmonton Formation (Canada)), 270, 273
Edmontosaurus (after Edmonton, Alberta (Canada); *sauros* – lizard, reptile), 137, 320, 328, 332, 340, 376, 415
Einiosaurus (*einio* – derived from North American Indian Blackfoot for buffalo; *sauros* – lizard, reptile), 300
Elaphrosaurus (*elaphros* – fleet; *sauros* – lizard, reptile), 437
Elasmosaurus (*elasma* – beaten metal; *sauros* – lizard, reptile), 465
Emausaurus (EMAU is an abbreviation for Ernst Moritz Arndt Universität; *sauros* – lizard, reptile), 256–257
- Enaliornis* (*en* – belonging to; *ali* – other; *ornis* – bird), 193
Eocursor (*Eos* – Greek goddess of dawn; *cursor* – runner), 94, 101, 104
Eodromaeus (*eo* – dawn; *drom* – run), 94, 121
Eoraptor (*Eos* – Greek goddess of dawn; *raptor* – thief, stealer), 93–94, 109, 213, 215, 441
Eozostrodon – (*Eos* – Greek goddess of dawn; *oster* – nimble; *don* – tooth), 401
Epidendrosaurus (*dendro* – tree; *sauros* – lizard, reptile), 172
Epidexpteryx (*epi* – close; *pteryx* – bird), 172
Equisetum (*Equus* – genus of modern horse; *saeta* – hair, the modern horsetail plant), 408
Eshanosaurus (*Eshan* – Eshan county (China); *sauros* – lizard, reptile), 168
Euoplocephalus (*eu* – true; *hoplon* – shield; *kephale* – head), 268–272, 277, 382
Eusthenopteron (*eu* – true; *theno* – palm of hand; *pteryx* – fin), 68–69
- F**
Fostoria, 10
- G**
Gallimimus (*Gallus* – genus of chicken; *mimus* – mimic), 12, 131, 163
Gasparinisaura (after Argentinian paleontologist Z. Gasparini; *sauros* – lizard, reptile), 335–337
Gastonia (after R. Gaston, who discovered it), 254
Giganotosaurus (*giga* – large; *noto* – south, southern; *sauros* – lizard, reptile), 120, 142, 155, 157–158, 161, 177
Gigantoraptor, 168
Ginkgoites (ginko-like), 410
Giraffatitan (*giraf* – tall; *titan* – large), 236, 238, 360
Gorgosaurus (*gorgo* – after the gorgons of Greek mythology; *sauros* – lizard, reptile), 140, 159, 162, 356, 376
Gryposaurus (*grypos* – hooked nose; *sauros* – lizard, reptile), 331–332, 340
Guaibasaurus (after the Guaiba River (Brazil); *sauros* – lizard, reptile), 94–95, 102, 121
- H**
Haplocanthosaurus (*haplos* – single; *akantha* – spine; *sauros* – lizard, reptile), 227
Herrerasaurus (after V. Herrera, the Argentine rancher who discovered it; *sauros* – lizard, reptile), 93–94, 102, 109, 121, 441
Hesperornis, 194

- Heterodontosaurus* (*hetero* – different; *don* – tooth; *sauros* – lizard, reptile), 249–250, 376
- Hexinlusaurus* (after He Xin-Lu (China); *sauros* – lizard, reptile), 323, 335
- Heyunannia*, 147
- Homalocephale* (*homalos* – even; *kephale* – head), 284, 288, 290–292
- Huayangosaurus* (after Hua Yang Guo Zhi (Chin Dynasty name for Sichuan Province, China); *sauros* – lizard, reptile), 261, 278
- Hylaesaurus* (*hylaios* – forest; *sauros* – lizard, reptile), 425
- Hypacrosaurus* (*hypakros* – highest, referring to the spine; *sauros* – lizard, reptile), 330, 333, 336, 383
- Hypsilophodon* (*hypsi* – high; *lophos* – crest; *don* – tooth), 327, 335, 337–338
- I**
- Ichthyornis* (*ishthys* – fish; *ornis* – bird), 193–194, 200, 381
- Ichthyostega* (*ichthys* – fish; *stegos* – roof), 69
- Iguanodon* (*iguana* – iguana; *don* – tooth), 322–325, 327, 333, 337–338, 421, 423–427, 430, 458
- Ingenia* (after the Ingeni locality (Mongolia)), 168
- J**
- Janenschia* (after German paleontologist Werner Janensch), 356, 358, 435
- Jeholosaurus* (after Jehol (China); *sauros* – lizard, reptile), 335
- Jobaria* (after Jobar, a creature in Tuareg (Saharan nomadic tribe) mythology), 441
- K**
- Kannemeyeria* (after the South African D. R. Kannemeyer), 401
- Kentrosaurus* (*kentron* – prickly, spiny; *sauros* – lizard, reptile), 262–263, 266, 278, 437
- Kotasaurus* (after the Kota Formation (India); *sauros* – lizard, reptile), 230
- Kulindadromeus*, 245
- L**
- Lagerpeton* (*lagos* – hare; *erpeto* – creep), 91, 100, 104
- Lagosuchus* (*lagos* – hare; *suchus* – crocodile), 100
- Lambeosaurus* (after Canadian paleontologist L. M. Lambe; *sauros* – lizard, reptile), 327, 330–331
- Larus*, 200–201
- Leaellynasaura* (after Leaellyn Rich, who helped to discover it; *sauros* – lizard, reptile), 328, 379
- Leptoceratops* (*lepto* – slender; *keras* – horn; *ops* – face), 300, 313, 316
- Lesothosaurus* (after Lesotho (southern Africa); *sauros* – lizard, reptile), 251, 256, 335
- Lewisuchus* (*Lewis* – A. D. Lewis, Chief Preparator at Harvard's Museum of Comparative Zoology; *suchus* – crocodile), 91
- Lexovisaurus* (after the Lexovii, Gallic Celts enlisted to fight Julius Caesar; *sauros* – lizard, reptile), 261
- Lufengosaurus* (after Lu-Feng, Yunnan Province (China); *sauros* – lizard, reptile), 215
- Lycorhinus* (*likos* – wolf; *rhinus* – snout, nose), 250
- M**
- Macroolithus* (*macro* – large; *lithos* – eggs), 147
- Magyarosaurus* (after Magyars – Hungarian people; *sauros* – lizard, reptile), 237
- Maiasaura* (*maia* – mother; *saura* – lizard, reptile (female ending)), 331, 333–334, 340–341, 356–359, 381
- Majungasaurus* (from Mahajanga (Madagascar); *sauros* – lizard, reptile), 130, 137, 139–140
- Malawisaurus* (after Malawi; *sauros* – lizard, reptile), 237
- Mapusaurus* (*Mapu* is an abbreviation of the word Mapuche, an indigenous Argentinian people, and refers to “Earth”; *sauros* – lizard, reptile), 142
- Marasuchus* (a reference to the mara, a Patagonian rodent; *sauros* – lizard, reptile), 91–92, 100, 376
- Marrasuchus*, 403
- Massospondylus* (*masso* – massive; *spondyl* – spool, referring to the centrum), 215, 381
- Matonidium* (after British botanist W. G. Maton; *eidos* – similar to (in this case, the genus *Matonia*, a living genus of fern)), 408
- Megalosaurus* (*mega* – large, great; *sauros* – lizard, reptile), 155–156, 158, 177, 421, 423, 425
- Melanorosaurus* (*melanos* – black; *oros* – mountain; *sauros* – lizard, reptile), 215
- Microraptor* (*micro* – small; *raptor* – thief, stealer), 120, 136, 169, 174, 181, 197, 203
- Mononykus* (*mono* – one; *onychus* – claw), 168–169, 422, 439
- Montanoceratops* (from Montana (USA); *keras* – horn; *ops* – face), 313, 316, 383
- Mussasaurus* (*mus* – mouse, because the specimen, a hatchling, was small; *sauros* – lizard, reptile), 215–217
- Muttaborrasaurus* (after Muttaborra (Australia); *sauros* – lizard, reptile), 333
- N**
- Nemegtosaurus* (after the Nemegt Formation (Mongolia); *sauros* – lizard, reptile), 219–220
- Neocalamites* (*neo* – new; *calamus* – a reed), 408
- Nigersaurus* (after Niger; *sauros* – lizard, reptile), 219
- Nothorhynchus*, 170
- O**
- Onchopristis* (giant saw), 139
- ontogeny, 305, 307, 499
- Onychiopsis* (appearing like *Onychium*, a living genus of fern; *onychus* – claw, a reference to the curved “fiddlehead”), 408
- Opisthocoelicaudia*, 227
- Ornitholestes* (*ornitho* – bird; *lestes* – robber), 143
- Ornithosuchus* (*ornitho* – bird; *suchus* – crocodile), 185
- Orodromeus* (*oros* – mountain; *dromeus* – runner), 322, 333, 335–337, 339, 341, 383
- Oryctodromeus* (*orycto* – dug out; *dromeus* – runner), 13, 18, 333–334
- Othnielosaurus* (after Charles Othniel; *sauros* – lizard, reptile) Charles, 335
- Otozoum* (from Otis, a giant), 215
- Ouranosaurus* (*ourane* – brave (in Nigerian); *sauros* – lizard, reptile), 329, 333–334, 338, 458
- Oviraptor* (*ovi* – egg; *raptor* – thief, stealer), 132, 143, 145–147, 168, 305, 422, 439
- P**
- Pachycephalosaurus* (*pachy* – thick; *kephale* – head; *sauros* – reptile, lizard), 287
- Pachyrhinosaurus* (*pachy* – thick; *rhinos* – nose, snout; *sauros* – lizard, reptile), 290, 294–295, 300, 316
- Pagiophyllum* (*pagio* – fixed, fastened; *phyllum* – leaf), 410
- Panoplosaurus* (*pan* – all; *hoplon* – shield; *sauros* – lizard, reptile), 270–271, 382

- Panphagia* (*pan* – all; *phagein* – to eat, referring to its inferred omnivorous diet), 94
- Parahesperornis* (*para* – near; that is, similar to *Hesperornis*), 193
- Paralititan* (*para* – near; *titan* – large), 236
- Paranthodon* (*para* – near; *anthos* – flower; *don* – tooth), 262
- Parasaurolophus* (*para* – near; that is, similar to *Saurolophus*), 14, 330–331, 337
- Parksosaurus* (after paleontologist W. A. Parks; *sauros* – lizard, reptile), 335, 337
- Passer* (to pass), 81, 92, 98, 120, 180–181
- Patagopteryx* (after Patagonia (Argentina); *pteryx* – wing), 190–193, 381
- Pentaceratops* (*penta* – five; *keras* – horn; *ops* – face), 22, 300, 316
- Pikaia* (after Mt. Pika (British Columbia, Canada)), 66
- Pinacosaurus* (*pina* – pine, pine nut; *sauros* – lizard, reptile), 269–270, 277
- Pisanosaurus* (*Pisano* – after Juan A. Pisano, and Argentine paleontologist), 94, 101, 249–250, 335
- Plateosaurus* (*plateos* – flat; *sauros* – lizard, reptile), 72, 74, 212, 215–216, 376
- Platypterygius* (*platys* – broad; *pteryion* – fin), 465
- Pleuromeia* (*pleuro* – rib; *meion* – small; a reference to the underground nutrient-storing part of the stem (corm) which is small relative to its ancestors), 408
- Postosuchus* (*post-* – behind; *suchus* – crocodile), 90
- Prenocephale* (*prenes* – sloping; *kephale* – head), 288
- Proceratosaurus* (*pro* – before; that is, before *Ceratosaurus*), 143
- Proganochelys*, 401
- Prosaurolophus* (*pro* – before; that is, before *Saurolophus*), 332, 340
- Protarchaeopteryx* (*pro* – before; that is, before *Archaeopteryx*), 136
- Proteacidites*, 468
- Protoceratops* (*proto* – before, early; that is, before *Ceratops*), 136–137, 145, 284, 298–299, 304–306, 309, 313, 316, 333, 420–422, 458, 482
- Protosuchus* (*proto* – before; *suchus* – crocodile), 90
- Pseudolagosuchus* (*pseudo* – false; that is, false *Lagosuchus*), 91–92, 403
- Psittacosaurus* (*psittaco* – parrot; *sauros* – lizard, reptile), 298–301, 303, 305–307, 309, 311–313, 356, 358, 381
- R**
- Rahonavis* (*rahon* – menace from the clouds (in Malagsay); *avis* – bird), 184–185, 188, 364
- Rajasaurus* (real dinosaur (Indian)), 441
- Rapetosaurus* (*rapeto* – mischievous; *sauros* – lizard, reptile), 137
- Regaliceratops* (*regalis* – royal; *ceratops* – horned face), 300
- Rhea* (the wife of the Titan Kronos, in Greek mythology), 379
- Riojasaurus* (after Rioja (Argentina); *sauros* – lizard, reptile), 215
- Rugops* (*ruqa* – wrinkle; *ops* – face), 441
- Rutiodon* (*ruti* – wrinkle; *don* – tooth), 90
- S**
- Saltosaurus* (after Salta Province (Argentina); *sauros* – lizard, reptile), 212, 217, 237
- Sanjuansaurus* (from San Juan Province, Argentina; *sauros* – lizard, reptile), 94
- Sapeornis chaoyangensis*, 189
- Sarcosuchus* (*sarco* – carnivorous; *suchus* – crocodile), 441
- Saturnalia* (after the Roman festival of the winter solstice), 94–95
- Saurolophus* (*sauros* – lizard, reptile; *lophos* – crest), 141, 332, 340
- Sauropelta* (*sauros* – lizard, reptile; *pelte* – shield), 272
- Scelidosaurus* (*skelis* – limb; *sauros* – lizard, reptile), 256–257, 278, 280
- Schizoneura* (*schizo* – split, divided; *neura* – neuron, brain), 408
- Scutellosaurus* (*scutellum* – small shield; *sauros* – lizard, reptile), 256–257, 278
- Shamosaurus* (*shamo* – desert (in Chinese); *sauros* – lizard, reptile), 270, 279
- Shunosaurus* (after Shuno, an old name for Sichuan Province (China); *sauros* – lizard, reptile), 219–220, 227, 230, 232
- Shuvuuia* (bird (in Mongolian)), 364, 381, 440
- Silesaurus* (*sil* – from Silesia; *sauros* – lizard, reptile), 91–92, 403
- Silvisaurus* (*silva* – forest; *sauros* – lizard, reptile), 270
- Sinornithosaurus* (*sino* – China; *ornitho* – bird; *sauros* – lizard, reptile), 136, 145, 169, 173, 197
- Sinosauripteryx* (*sino* – China; *sauros* – lizard, reptile; *pteryx* – wing), 136, 144–145, 160, 163, 166, 168, 197
- Sinraptor* (*sinae* – indigeneous Chinese people; *raptor* – thief, stealer), 155, 157
- Sordes* (Latin for filth), 108
- Sphaerolitholus* (*sphaira* – ball; *tholos* – dome), 379
- Spinosaurus* (*spina* – spine; *sauros* – lizard, reptile), 120, 138–139, 152, 155–156, 158, 161, 177, 333, 426, 434–435, 441
- Stagonolepis* (*stagon* – drop, a reference to the drop-like pits on the scutes; *lepis* – scale), 90
- Staurikosaurus* (*stauriko* – a reference to the Southern Cross, a constellation; *sauros* – lizard, reptile), 94–95, 102
- Stegoceras* (*stegos* – roof; *keras* – horn), 288, 290–293, 379
- Stegosaurus* (*stegos* – roof; *sauros* – lizard, reptile), 96, 100, 137, 244, 254, 259, 261–267, 278–279, 281, 295, 428
- Stormbergia* (after Stormberg, South Africa), 335
- Struthiomimus* (*strouthion* – ostrich; *mimos* – mimic), 124, 127, 163, 167, 265, 361
- Stryacosaurus*, 458
- Stygimoloch* (*stygi* – of the river Styx (boundary of Hades or hell); *moloch* – devil), 291, 294–295
- Styracosaurus* (*styrax* – spike on the end of spear; *sauros* – lizard, reptile), 299–300, 458
- Suchomimus* (*suchus* – crocodile; *mimus* – mimic), 441
- Sulcavis georum*, 191
- Suskityrannus*, 448
- Syntarsus* (*syn* – fused; *tarsos* – tarsus), 142–144, 147, 381
- Szechuanosaurus* (after Szechuan Province (China); *sauros* – lizard, reptile), 158
- T**
- Tarbosaurus* (*tarbos* – terror; *sauros* – lizard, reptile), 141, 162–163
- Tarchia* (*tarchi* – brain (in Mongolian)), 270
- Tawa hallae*, 97
- Telmatosaurus* (*telmat* – swamp; *sauros* – lizard, reptile), 340
- Tendaguru (Tanzania)*, 223, 227, 263, 435–442
- Tenontosaurus* (*tenon* – tendon; *sauros* – reptile), 141, 338
- Texacephale* (Texas – state of origin (USA); *cephale* – head), 311
- Thecodontosaurus* (*theko* – socket; *don* – tooth; *sauros* 215)
- Thescelosaurus* (*theskelos* – astonishing; *sauros* – lizard, reptile), 335, 337, 378
- Tianyulong* (from the Tianyu Museum of Nature (China)), 245, 247, 251, 309, 374
- Tikaalik* (Inuktitut eskimo (Canada) word for “burbot” a freshwater fish), 68–69

- Titanoceratops* (*titan* – large; *kera* – horn; *ops* – face), 300
- Tornieria* (after German paleontologist G. Tornier), 437
- Torosaurus* (*tauro* – bull; *sauros* – lizard, reptile), 300, 314
- Torvosaurus* (*torvus* – savage; *sauros* – lizard, reptile), 155–156, 315–316
- Triceratops* (*tri* – three; *kera* – horn; *ops* – face), 81, 92, 98, 100, 136, 140–142, 305, 307–309, 313–316, 337
- Troodon* (*troo* – wound; *don* – tooth), 129, 141, 380
- Tuojiangosaurus* (after Tuojiang (China); *sauros* – lizard, reptile), 258, 261, 278
- Turanoceratops*, 314
- Tylosaurus* (*tylos* – projection; *sauros* – lizard, reptile), 465
- Tyrannosaurus* (*tyranno* – tyrant; *sauros* – lizard, reptile), 8, 15, 32, 46, 82, 119–120, 126–127, 129, 132–135, 137, 141–142, 144, 147, 152, 161–164, 355–357, 362, 365, 376, 383, 424, 426, 441
- Tyrannosaurus Sue, 357
- V**
- Vegavis* (after Vega Island Province; *avis* – bird), 193–195, 446
- Velociraptor* (*velo* – swift; *raptor* – thief, stealer), 12, 129, 136–137, 168, 364, 376, 379, 422, 482
- Vulcanodon* (after Vulcanus, the Roman god of Fire; *don* – tooth), 217, 230
- W**
- Wendiceratops* (after Wendy Sloboda, who discovered it, *kera* – horn; *ops* – face), 300, 313, 315
- Wielandiella* (after US paleontologist/paleobotanist G. R. Wieland), 410
- Williamsoniella* (after British paleobotanist W. C. Williamson) 410
- Wuerhosaurus* (after Wuerho (China); *sauros* – lizard, reptile), 278
- Y**
- Yandusaurus* (*yan* – salt; *du* – capital (in Chinese); *sauros* – lizard, reptile), 335, 338
- Yangchuanosaurus* (after Yangchuan County (China); *sauros* – lizard, reptile), 143
- Yi qi* (Mandarin pronunciation of dinosaur), 172, 176
- Yinlong* (hidden dinosaur (Chinese)), 301, 312
- Yunnanosaurus* (after Yunnan Province (China); *sauros* – lizard, reptile), 215
- Yutyranus* (*yu* – feather; *tyrannus* – tyrant), 136, 160–164, 375
- Yutyranus huali*, 136
- Z**
- Zephyrosaurus* (*Zephyros* – Greek god of the West Wind; *sauros* – lizard, reptile), 335, 338
- Zhouornis hani*, 191