

Grzimek's Animal Life Encyclopedia



Second Edition
Volume 16 • Mammals V



Michael Hutchins, Series Editor,
in association with the American Zoo and Aquarium Association

Devra G. Kleiman and Valerius Geist, Advisory Editors

Contents

Foreword	ix
How to use this book	xii
Advisory boards.....	xiv
Contributing writers	xvi
Contributing illustrators.....	xx

Volume 12: Mammals I

What is a mammal?	3
Ice Age giants.....	17
Contributions of molecular genetics to phylogenetics.....	26
Structure and function.....	36
Adaptations for flight.....	52
Adaptations for aquatic life	62
Adaptations for subterranean life.....	69
Sensory systems, including echolocation.....	79
Life history and reproduction	89
Reproductive processes.....	101
Ecology.....	113
Nutritional adaptations.....	120
Distribution and biogeography	129
Behavior.....	140
Cognition and intelligence	149
Migration.....	164
Mammals and humans: Domestication and commensals	171
Mammals and humans: Mammalian invasives and pests	182
Mammals and humans: Field techniques for studying mammals.....	194
Mammals and humans: Mammals in zoos.....	203
Conservation	213

Order MONOTREMATA

Monotremes	227
Family: Echidnas.....	235
Family: Duck-billed platypus	243

Order DIDELPHIMORPHIA

New World opossums	
Family: New World opossums.....	249

Order PAUCITUBERCULATA

Shrew opossums	
Family: Shrew opossums	267

Order MICROBIOTHERIA

Monitos del monte	
Family: Monitos del monte	273

Order DASYUROMORPHIA

Australasian carnivorous marsupials.....	277
Family: Marsupial mice and cats, Tasmanian devil.....	287
Family: Numbat	303
Family: Tasmanian wolves	307

For further reading.....	311
Organizations	316
Contributors to the first edition	318
Glossary	325
Mammals species list	330
Geologic time scale.....	364
Index	365

Volume 13: Mammals II

Order PERAMELEMORPHIA

Bandicoots and bilbies	1
Family: Bandicoots.....	9
Subfamily: Bilbies.....	19

Order NOTORYCTEMORPHIA

Marsupial moles	
Family: Marsupial moles.....	25

Order DIPROTODONTIA

Koala, wombats, possums, wallabies, and kangaroos	31
Family: Koalas.....	43
Family: Wombats.....	51
Family: Possums and cuscuses.....	57
Family: Musky rat-kangaroos.....	69
Family: Rat-kangaroos	73
Family: Wallabies and kangaroos.....	83
Family: Pygmy possums	105
Family: Ringtail and greater gliding possums	113
Family: Gliding and striped possums	125

Family: Honey possums.....	135
Family: Feather-tailed possums.....	139
Order XENARTHRA	
Sloths, anteaters, and armadillos.....	147
Family: West Indian sloths and two-toed tree sloths.....	155
Family: Three-toed tree sloths.....	161
Family: Anteaters.....	171
Family: Armadillos.....	181
Order INSECTIVORA	
Insectivores.....	193
Family: Gymnures and hedgehogs.....	203
Family: Golden moles.....	215
Family: Tenrecs.....	225
Family: Solenodons.....	237
Family: Extinct West Indian shrews.....	243
Family: Shrews	
I: Red-toothed shrews.....	247
II: White-toothed shrews.....	265
Family: Moles, shrew moles, and desmans.....	279
Order SCANDENTIA	
Tree shrews	
Family: Tree shrews.....	289
Order DERMOPTERA	
Colugos	
Family: Colugos.....	299
Order CHIROPTERA	
Bats.....	307
Family: Old World fruit bats	
I: <i>Pteropus</i>	319
II: All other genera.....	333
Family: Mouse-tailed bats.....	351
Family: Sac-winged bats, sheath-tailed bats, and ghost bats.....	355
Family: Kitti's hog-nosed bats.....	367
Family: Slit-faced bats.....	371
Family: False vampire bats.....	379
Family: Horseshoe bats.....	387
Family: Old World leaf-nosed bats.....	401
Family: American leaf-nosed bats.....	413
Family: Moustached bats.....	435
Family: Bulldog bats.....	443
Family: New Zealand short-tailed bats.....	453
Family: Funnel-eared bats.....	459
Family: Smoky bats.....	467
Family: Disk-winged bats.....	473
Family: Old World sucker-footed bats.....	479
Family: Free-tailed bats and mastiff bats.....	483
Family: Vespertilionid bats	
I: Vespertilioninae.....	497
II: Other subfamilies.....	519
For further reading.....	527
Organizations.....	532
Contributors to the first edition.....	534

Glossary.....	541
Mammals species list.....	546
Geologic time scale.....	580
Index.....	581

Volume 14: Mammals III

Order PRIMATES

Primates.....	1
Family: Lorises and pottos.....	13
Family: Bushbabies.....	23
Family: Dwarf lemurs and mouse lemurs.....	35
Family: Lemurs.....	47
Family: Avahis, sifakas, and indris.....	63
Family: Sportive lemurs.....	73
Family: Aye-ayes.....	85
Family: Tarsiers.....	91
Family: New World monkeys	
I: Squirrel monkeys and capuchins.....	101
II: Marmosets, tamarins, and Goeldi's monkey.....	115
Family: Night monkeys.....	135
Family: Sakis, titis, and uakaris.....	143
Family: Howler monkeys and spider monkeys.....	155
Family: Old World monkeys	
I: Colobinae.....	171
II: Cercopithecinae.....	187
Family: Gibbons.....	207
Family: Great apes and humans	
I: Great apes.....	225
II: Humans.....	241

Order CARNIVORA

Land and marine carnivores.....	255
Family: Dogs, wolves, coyotes, jackals, and foxes.....	265
Dogs and cats.....	287
Family: Bears.....	295
Family: Raccoons and relatives.....	309
Family: Weasels, badgers, skunks, and otters.....	319
Family: Civets, genets, and linsangs.....	335
Family: Mongooses and fossa.....	347
Family: Aardwolf and hyenas.....	359
Family: Cats.....	369
Family: Eared seals, fur seals, and sea lions.....	393
Family: Walruses.....	409
Family: True seals.....	417
For further reading.....	437
Organizations.....	442
Contributors to the first edition.....	444
Glossary.....	451
Mammals species list.....	456
Geologic time scale.....	490
Index.....	491

Volume 15: Mammals IV

Order CETACEA

Whales, dolphins, and porpoises.....	1
Family: Ganges and Indus dolphins.....	13

Family: Baijis.....	19
Family: Franciscana dolphins.....	23
Family: Botos.....	27
Family: Porpoises.....	33
Family: Dolphins.....	41
Family: Beaked whales.....	59
Family: Sperm whales.....	73
Family: Belugas and narwhals.....	81
Family: Gray whales.....	93
Family: Pygmy right whales.....	103
Family: Right whales and bowhead whales.....	107
Family: Rorquals.....	119
The ungulates.....	131
Ungulate domestication.....	145
Order TUBULIDENTATA	
Aardvarks	
Family: Aardvarks.....	155
Order PROBOSCIDEA	
Elephants	
Family: Elephants.....	161
Order HYRACOIDEA	
Hyraxes	
Family: Hyraxes.....	177
Order SIRENIA	
Dugongs, sea cows, and manatees	
Family: Dugongs and sea cows.....	199
Family: Manatees.....	205
Order PERISSODACTYLA	
Odd-toed ungulates	
Family: Horses, zebras, and asses.....	225
Family: Tapirs.....	237
Family: Rhinoceroses.....	249
Order ARTIODACTYLA	
Even-toed ungulates	
Family: Pigs.....	275
Family: Peccaries.....	291
Family: Hippopotamuses.....	301
Family: Camels, guanacos, llamas, alpacas, and vicuñas.....	313
Family: Chevrotains.....	325
Family: Deer	
Subfamily: Musk deer.....	335
Subfamily: Muntjacs.....	343
Subfamily: Old World deer.....	357
Subfamily: Chinese water deer.....	373
Subfamily: New World deer.....	379
Family: Okapis and giraffes.....	399
Family: Pronghorn.....	411
For further reading.....	419
Organizations.....	424
Contributors to the first edition.....	426
Glossary.....	433
Mammals species list.....	438

Geologic time scale.....	472
Index.....	473

Volume 16: Mammals V

Family: Antelopes, cattle, bison, buffaloes, goats, and sheep.....	1
I: Kudus, buffaloes, and bison.....	11
II: Hartebeests, wildebeests, gemsboks, oryx, and reedbucks.....	27
III: Gazelles, springboks, and saiga antelopes.....	45
IV: Dikdiks, beiras, grysboks, and steenboks.....	59
V: Duikers.....	73
VI: Sheep, goats, and relatives.....	87

Order PHOLIDOTA

Pangolins

Family: Pangolins.....	107
------------------------	-----

Order RODENTIA

Rodents.....	121
Family: Mountain beavers.....	131
Family: Squirrels and relatives	
I: Flying squirrels.....	135
II: Ground squirrels.....	143
III: Tree squirrels.....	163
Family: Beavers.....	177
Family: Pocket gophers.....	185
Family: Pocket mice, kangaroo rats, and kangaroo mice.....	199
Family: Birch mice, jumping mice, and jerboas.....	211
Family: Rats, mice, and relatives	
I: Voles and lemmings.....	225
II: Hamsters.....	239
III: Old World rats and mice.....	249
IV: South American rats and mice.....	263
V: All others.....	281
Family: Scaly-tailed squirrels.....	299
Family: Springhares.....	307
Family: Gundis.....	311
Family: Dormice.....	317
Family: Dassie rats.....	329
Family: Cane rats.....	333
Family: African mole-rats.....	339
Family: Old World porcupines.....	351
Family: New World porcupines.....	365
Family: Viscachas and chinchillas.....	377
Family: Pacaranas.....	385
Family: Cavies and maras.....	389
Family: Capybaras.....	401
Family: Agoutis.....	407
Family: Pacas.....	417
Family: Tuco-tucos.....	425
Family: Octodonts.....	433
Family: Chinchilla rats.....	443
Family: Spiny rats.....	449
Family: Hutias.....	461
Family: Giant hutias.....	469
Family: Coypus.....	473

Order LAGOMORPHA	
Pikas, rabbits, and hares	479
Family: Pikas	491
Family: Hares and rabbits	505
Order MACROSCELIDEA	
Sengis	
Family: Sengis	517

For further reading	533
Organizations	538
Contributors to the first edition	540
Glossary	547
Mammals species list	552
Geologic time scale.....	586
Index	587