

Grzimek's Animal Life Encyclopedia



Second Edition
Volume 15 • Mammals IV



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

Devra G. Kleiman and Valerius Geist, Advisory Editors

Contents

Foreword	ix	Order PAUCITUBERCULATA	
How to use this book	xii	Shrew opossums	
Advisory boards.....	xiv	Family: Shrew opossums	267
Contributing writers.....	xvi	Order MICROBIOTHERIA	
Contributing illustrators.....	xx	Monitos del monte	
		Family: Monitos del monte	273
Volume 12: Mammals I		Order DASYUROMORPHIA	
What is a mammal?	3	Australasian carnivorous marsupials.....	277
Ice Age giants.....	17	Family: Marsupial mice and cats, Tasmanian	
Contributions of molecular genetics to		devil.....	287
phylogenetics.....	26	Family: Numbat	303
Structure and function.....	36	Family: Tasmanian wolves	307
Adaptations for flight.....	52	For further reading	311
Adaptations for aquatic life	62	Organizations	316
Adaptations for subterranean life.....	69	Contributors to the first edition	318
Sensory systems, including echolocation.....	79	Glossary	325
Life history and reproduction	89	Mammals species list	330
Reproductive processes.....	101	Geologic time scale.....	364
Ecology.....	113	Index.....	365
Nutritional adaptations.....	120		
Distribution and biogeography.....	129	Volume 13: Mammals II	
Behavior.....	140	Order PERAMELEMORPHIA	
Cognition and intelligence	149	Bandicoots and bilbies	1
<i>Migration</i>	164	Family: Bandicoots.....	9
Mammals and humans: Domestication and		Subfamily: Bilbies.....	19
commensals	171	Order NOTORYCTEMORPHIA	
Mammals and humans: Mammalian invasives and		Marsupial moles	
pests	182	Family: Marsupial moles.....	25
Mammals and humans: Field techniques for studying		Order DIPROTODONTIA	
mammals.....	194	Koala, wombats, possums, wallabies, and kangaroos	31
Mammals and humans: Mammals in zoos.....	203	Family: Koalas.....	43
Conservation	213	Family: Wombats.....	51
		Family: Possums and cuscuses.....	57
Order MONOTREMATA		Family: Musky rat-kangaroos.....	69
Monotremes	227	Family: Rat-kangaroos	73
Family: Echidnas	235	Family: Wallabies and kangaroos.....	83
Family: Duck-billed platypus	243	Family: Pygmy possums	105
		Family: Ringtail and greater gliding possums.....	113
Order DIDELPHIMORPHIA		Family: Gliding and striped possums	125
New World opossums			
Family: New World opossums.....	249		

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: Kittie'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		191
Family: Dugongs and sea cows	199	
Family: Manatees	205	
Order PERISSODACTYLA		
Odd-toed ungulates		215
Family: Horses, zebras, and asses	225	
Family: Tapirs	237	
Family: Rhinoceroses	249	
Order ARTIODACTYLA		
Even-toed ungulates		263
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