

ANIMAL KINGDOM

THE STRANGE AND WONDERFUL WAYS
OF MAMMALS, BIRDS, REPTILES,
FISHES AND INSECTS. A NEW AND
AUTHENTIC NATURAL HISTORY OF
THE WILDLIFE OF THE WORLD.

FREDERICK DRIMMER, M.A.

EDITOR-IN-CHIEF

VOLUME I

GREYSTONE PRESS, NEW YORK

COPYRIGHT 1954 BY THE GREYSTONE PRESS

100 SIXTH AVENUE

NEW YORK 13, NEW YORK

10554-15M

LIBRARY OF CONGRESS CATALOG NUMBER 53-11687

Designed by Sidney Feinberg

MANUFACTURED IN THE UNITED STATES OF AMERICA
AMERICAN BOOK-STRATFORD PRESS, INC., NEW YORK

THE ANIMAL KINGDOM

THE

George G. Goodwin

ASSOCIATE CURATOR OF MAMMALS,
THE AMERICAN MUSEUM OF NATURAL HISTORY

Charles M. Bogert

CURATOR OF AMPHIBIANS AND REPTILES,
THE AMERICAN MUSEUM OF NATURAL HISTORY

Dean Amadon

E. Thomas Gilliard

ASSOCIATE CURATORS OF BIRDS,
THE AMERICAN MUSEUM OF NATURAL HISTORY

Christopher W. Coates CURATOR

James W. Atz ASSISTANT CURATOR,
AQUARIUM OF

THE NEW YORK ZOOLOGICAL SOCIETY

John C. Pallister

RESEARCH ASSOCIATE, INSECTS,
THE AMERICAN MUSEUM OF NATURAL HISTORY

About This Book

THE ANIMAL KINGDOM is an epochal work in the field of natural history. Written by seven eminent naturalists on the staffs of the American Museum of Natural History and the New York Zoological Society, it has been four years in preparation, and comprises over two thousand pages and six hundred thousand words of authentic and interesting information about the wildlife of the world. It is far and away the most complete, authoritative, and up-to-date natural history in the English language today.

The Animal Kingdom will supply you with the knowledge you need if you are to understand the animals that share the world in which you live. Based on the most recent research and investigation, this great work explains simply and colorfully the intimate lives of wild animals, both common and exotic, of all lands — not only the mammals, but the birds, amphibians, reptiles, fishes, insects and other invertebrates. The writers tell you how you can recognize each important animal, where it lives, its habits, courtship, family life, how it raises its young, how it combats enemies and gets its food, and a wealth of other fascinating information — in short, the animal's natural history.

ANIMALS ALIVE

This is a book of animals alive. The distinguished authors of *The Animal Kingdom*, although outstanding scientists, are no mere dry-as-dust museum specialists. They have a deep love of animals and have tracked and observed them in the remote fastnesses of the earth.

In these pages they share many a thrilling adventure with you, many a startling encounter they have had in the wild — with the giant brown bears and the wolves of the Arctic tundra, with the lions of the African veld, the poisonous reptiles of the American deserts and woodland, the exotic birds of the rain forests of New Guinea, the strange insects of the jungles of South America. You will read of hairbreadth escapes, and the curious ways of primitive peoples in the native lands of these animals.

A BOOK OF MARVELS

This is a book of marvels as well. Animals have a way of not living up to our preconceived notions, yet what they will do often exceeds our most fantastic expectations. Thus the authors tell you about fishes that build nests in the water or hop about on land, about desert rodents that never drink water and will refuse it when offered, about ants that keep herds of insect "cows," salamanders that have elaborate courtship rites, young elephants that make their own playthings, bats that go fishing, whales that commit suicide, birds that cannot fly but can run faster than most other animals.

Nature teems with such oddities, and since they are of considerable scientific and popular interest, the authors describe them at length.

WHAT ANIMALS MEAN TO MAN

This is also a book about what animals mean to man. The story of how wild creatures are hunted and trapped or tamed is spread through these pages.

You will read here how the Japanese rear silkworms, how the Indians tame the elephant, and how South American natives hunt the capybara, the biggest rodent on earth, along the Orinoco and the Amazon. You will learn how the whale is fished today by modern fleets in the icy waters of the Antarctic, and the uses to which ambergris, whale oil, whale meat, and whalebone are put. Few stories are more tragic than those told here about the large-scale slaughter of fur seals, ostriches, birds of paradise, bison, Colobus monkeys, and other animals, which once brought these creatures close to extinction.

Bears and seals as entertainers — the comparative reliability of lions and tigers as circus performers — the humble origins of some furs with glamorous names — the ancestry of our domestic cats, canaries, and other creatures — these are merely a few of the fascinating subjects touched on, in which man and the animals are linked.

The authors also take you on diverting excursions into the romantic realm of folklore, tell you of the odd beliefs people have about animals around the globe, and explain the origin of many legendary beasts such as the unicorn and the sea serpent.

A WORK OF SCIENTIFIC INFORMATION

Although those aspects of animal life that are of most interest to the general reader have been stressed in *The Animal Kingdom*, and technical jargon has been avoided, this book is thoroughly scientific in approach and content. You will find highly accurate and lucid explanations of how such mammals as the weasel change colors with the seasons, how the heat-detecting mechanism of reptiles works, how birds can fly, how fishes breathe, and countless other important facts.

The wonderful story of the development of the animals is related simply and clearly, and frequent glimpses are afforded of the rich animal life of the past — of odd or spectacular creatures like the dinosaur and

the four-toed horse that became extinct ages ago, as well as those that, like the dodo and the passenger pigeon, vanished within historic time. The common and zoological names of the various animals are given — approximately eight thousand are listed in the Complete Ready Reference Index at the end of this work — and their position in the scheme of living things is explained.

SEVEN EMINENT AUTHORS

To give *The Animal Kingdom* unimpeachable authority, the task of producing this monumental work was entrusted to seven leading authorities on animal life:

Book I — “Mammals of the Land, Air, and Waters of the World” — was written by George G. Goodwin, Associate Curator of the Department of Mammals of the American Museum of Natural History. Dr. Goodwin has studied mammals in their native habitat all over the world: his explorations have taken him to Siberia, Turkestan, Persia, Syria, Egypt, Kenya, Tanganyika, the West Indies, the Arctic, and many other remote places. He has collected forty-five hundred specimens for the Museum, and named sixty mammals new to science. He is the author of numerous articles and seventy popular and scientific publications, including *Mammals of Honduras*, *Mammals of Costa Rica*, *Mammals of Connecticut*, etc.

Although the mammals are not the most numerous of the animals, more interest attaches to them than to other forms of wildlife and so Book I is the longest in *The Animal Kingdom*; in point of fact it is the most up-to-date and comprehensive popular work on mammals of the world in the English language.

Book II — “Birds of the World” — is the work of two outstanding bird experts, Dean Amadon and E. Thomas Gilliard, Associate Curators of the Department of Birds of the American Museum of Natural History. They have devoted many years to the study of birds in North and South America, Australia, New Guinea, the Hawaiian Islands and the Philippines. Dr. Amadon and Mr. Gilliard are the authors of articles that have appeared in many leading scientific and popular periodicals.

Book III — “Amphibians and Reptiles of the World” — was written by Charles M. Bogert, Chairman and Curator of the Department of Amphibians and Reptiles at the American Museum of Natural History. A distinguished explorer and scientist, Mr. Bogert has made many notable scientific contributions concerning the reptiles and amphibians of the United States, Mexico, Central America, New Guinea, and Africa. He has taught biology and zoology at the University of California.

Book IV — “Fishes of the World” — comes from the pens of Christopher W. Coates, Curator, and James W. Atz, Assistant Curator, of the New York Aquarium of the New York Zoological Society. Mr. Coates is the leading public aquarist in the United States, and one of the leaders in the world. For his use of aquatic animals in medical research he has won two awards for Advancement of Medical Science. Both Mr. Coates and Mr. Atz are the authors of numerous scientific and popular writings in their field.

Book V — "Insects and Other Invertebrates" — is by John C. Pallister, Research Associate, Department of Insects and Spiders, at the American Museum of Natural History; he was formerly in charge of the Entomological Department of the Cleveland Museum of Natural History. An explorer, scientist, and lecturer of many years' experience, Mr. Pallister has studied and collected insects and other invertebrates in the United States, Canada, Mexico, Guatemala, British Honduras, Panama, Brazil, Peru, and on islands in the Pacific.

AN IMPRESSIVE GALLERY OF WILDLIFE PICTURES

Besides numerous black and white photographs and color plates, an impressive gallery of more than five hundred accurate drawings of animals in their natural surroundings illustrates this book. These pictures were prepared by a corps of highly skilled wildlife illustrators working under the direct supervision of the authors.

The greater number of the drawings of mammals, reptiles, amphibians, and invertebrates are the work of Thomas Voter, formerly Art Director of the American Museum of Natural History. Gardell Dano Christensen, noted wildlife artist, also drew some of the mammals; Russell Francis Peterson, Marjorie Statham, and Evelyn Hastings, all affiliated with the Museum, prepared a number of the insect drawings. The birds were drawn by Robert F. Seibert, formerly staff artist with *Audubon Magazine*. Lloyd Sandford, staff artist of the New York Zoological Society, drew the portraits of the fishes. Matthew Kalmenoff did the animal tracks.

Many other persons have given freely of their time and thought to help make *The Animal Kingdom* the classic work in its field. In particular, the publishers wish to acknowledge a debt of gratitude to Dr. Roy Chapman Andrews, President Emeritus of the American Museum of Natural History, for his generous encouragement during the initial stages. Dr. George G. Goodwin gave invaluable advice and guidance as the book grew, and so, too, did the other authors.

In its domain, this great work has no equal. We may still profitably follow the counsel of the Bible: "Go to the ant, thou sluggard; consider her ways, and be wise." There is no substitute for going out and seeing the animals at first hand, and it is hoped that the present work will encourage the reader to do so. But for a general understanding of the animals, however, we no longer need to travel afield, nor, indeed, to look into a multitude of books on the different classes of animal life. *The Animal Kingdom* now tells us, clearly and expertly, within the scope of a single comprehensive natural history, the things we want to know about the strange and wonderful ways of them all — the mammals, birds, amphibians, reptiles, fishes, insects and other invertebrates of the entire world.

FREDERICK DRIMMER
Editor-in-Chief

Contents—Volume I

BOOK I: Mammals of the Air, Land, and Waters of the World

BY GEORGE G. GOODWIN

UNDERSTANDING THE MAMMALS

3

Why we call them mammals — keen senses — camouflage — gay coats are camouflage, too — how animals move about — wonderful feet and legs — their tails help them travel — speed records — animals of the night and day — living by instinct — animals can learn — animal fathers and mothers — affection among the animals — how the mother bears her young — why animals love company — puzzling habits — teeth tell the story — social rank among the animals — how long they live — why every animal has a scientific name — tracing the wolf.

THE SPINY ANTEATER AND THE DUCKBILL PLATYPUS

24

Spiny anteaters, Australia's "porcupines" — how the anteater gets its food — baby echidnas — anteaters tame and wild — duckbill platypuses, a strange combination — mother duckbill and her babies — the dangerous male.

ANIMALS WITH POUCHES — KANGAROOS AND THEIR RELATIVES

29

Why the marsupials live where they do — primitive animals — opossums, America's only marsupials — birth and death among the opossums — a remarkable tail — "the incredible mother" — interesting opossums of Central and South America — Australia's pouched mammals — the thylacine or marsupial wolf — the Tasmanian devil — the marsupial cat — marsupial mice — the banded anteater or numbat — moles with pouches — bandicoots — the cuscus — the spotted cuscus — Australian or vulpine possums — sugar gliders or flying phalangers — pygmy gliders — honey possums — the koala — ring-tailed possums — great flying phalangers — wombats, skillful diggers — the banded wallaby — the rock wallaby — kangaroos — where they got their name — the great kangaroo or forester — kangaroo "mobs" — baby kangaroos — gentle unless provoked — old males are bold — the tree kangaroo — the musk kangaroo.

THE INSECT-EATERS — SHREWS AND THEIR RELATIVES

65

Neighbors of the dinosaur — solenodons, West Indian rarities — tenrecs, Madagascar's shrews and hedgehogs — potamogales, sturdy swimmers of Africa — golden moles — hedgehogs — battle between a hedgehog and a viper — elephant shrews: high-strung runners and fighters — the true shrews, smallest mammals in the world — red-toothed shrews — American water shrews — cinereous shrews — babies as small as honeybees — 1200 heartbeats a minute — common red-toothed shrews — the water shrew in action — notable short-tailed shrews — white-toothed shrews — cruel custom — stench into perfume — Indian house shrews — the hero shrew — desmans, slow swimmers in weary rivers — true moles, remarkable diggers — life under the ground — Europe's common moles — mating of the moles — the mole in folklore — common American garden moles — star-nosed moles — hairy-tailed moles.

FLYING LEMURS — GLIDERS OF THE JUNGLE

95

THE BATS

98

Mystery of the bats' origin — a natural "radar" system — babies and mothers — most bats are useful — Old World fruit bats and flying foxes — dog-faced bats — hammer-headed bats — yellow-haired fruit bats — sac-winged bats, sheath-tailed bats, and tomb bats: tropical insect-eaters — black tomb bats — ghost or white bats — bulldog bats, nighttime fishermen — hollow-faced bats and

false vampires — flesh-eating bats — yellow-winged bats — horse-shoe bats and cyclops bats — how bats sleep through the winter — America's nose-leaf bats and leaf-lipped bats — a visit with the javelin bats — leaf-chinned bats — flat-faced fruit bats — vampires, bats that drink blood — true insect-eating or common bats — little brown bats — fish-eating bats — pipistrelles — the neat noctule — red bats — long-eared bats — great northern or hoary bats — free-tailed bats — great guano deposits — bats in war.

THE CLEVER ONES — AN INTRODUCTION TO THE MONKEYS 137

TREE SHREWS, LEMURS, AND OTHER HALF-MONKEYS 143

Tree shrews: they look like squirrels — tame tree shrews — lemurs, the fox-faced “monkeys” of Madagascar—lemurs that sleep through the summer — the woolly lemurs — the indri — its protective coloring — how it got its name — the indri of legend — aye-ayes, mystery creatures of Madagascar — slender lorises — slow or gray lorises — the “bashful cat” — the common potto — like a little old man — a powerful hand grasp — the bush baby, ojam, or galago — a ball of bush babies — when the bush babies cry — tarsiers.

MONKEYS OF THE NEW WORLD 160

The night monkey or douroucouli — the uakari — capturing the uakari — the saki, intelligent and friendly — the howler monkey and its remarkable howl — family life of the howlers — the wonderful “monkey chain” — capuchins, or ring-tailed monkeys — full of pranks — squirrel monkeys — spider monkeys — a leap of thirty feet — family life among the spider monkeys — marmosets and tamarins, South America's “near-monkeys” — a fifty-foot fall — marmoset pets.

OLD WORLD MONKEYS 174

Macaques — monkey marauders — bullies and underdogs — rhesus monkeys — Europe's only monkey — the wily black ape — mangabeys, named for a place they never lived in — baboons, biggest of the monkeys — clever food-getters — baboon pests — the helpful tame baboon — hamadryas baboons — their battles — mandrills and drills — guenons, Africa's commonest monkeys — monkey mother love — a “sick” monkey — red monkeys — langurs, common monkeys of the Orient — the sacred monkey — proboscis monkeys — the guereza.

GIANTS OF THE MONKEY WORLD — THE GREAT APES 196

Gibbons: they race through the trees — a tremendous voice — the gibbons' family life — orangutans, "men of the woods" — the orangutan tests each branch — the orangutan in peace and war — a cheerful and intelligent animal — chimpanzees, smartest of the apes — their families — Peter, an educated chimpanzee — capturing the chimpanzee — gorillas, greatest of the great apes — the gorilla band — John Gorilla.

THE "TOOTHLESS" ONES 208

The great anteater — when anteaters turn savage — silky or two-toed anteaters — a captive silky anteater — three-toed anteaters — the sloth's topsy-turvy world — "fast" and "slow" sloths — giant sloths of yesterday — armadillos, enemies of the white ant — not a fighter — its home life — ancient giants — Theodore Roosevelt and the armadillo — powerful feet and claws — babies all of one sex — vulture into armadillo — giant armadillos — fairy armadillos — three-banded armadillos.

OLD WORLD ANTEATERS AND AARDVARKS 223

Pangolins or scaly anteaters — master of the art of self-defense — getting their food — slow breeders — common ground pangolins — a dangerous tail — "supernatural powers" — West Africa's tree pangolins — ground pangolins of southern Asia — aardvarks, Africa's "earth pigs" — hunting the aardvark — a prodigious eater of ants — how it defends itself.

THE SHY ONES — HARES, RABBITS, AND PIKAS 230

Why rabbits are important to us — rabbits in folklore — pikas or whistling hares — great white hares — battles at mating time — white-tailed jack rabbits — rabbit dances — white-sided jack rabbits — other jack rabbits — snowshoe rabbits: they change their coats — the European hare — "mad as a March hare" — hares in Asia and Africa — the red hare — American cottontails and pygmy rabbits — the cottontail, molly, or briar rabbit — a courageous mother — more American rabbits — Old World rabbits.

THE RODENTS — MAMMALS THAT GNAW 247

SQUIRRELS, CHIPMUNKS, AND THEIR RELATIVES

251

Mountain beavers — tree squirrels of Europe and Northern Asia — European pine squirrels — hunting the squirrel — folk tales about the squirrel — North America's tree squirrels — red squirrels — avoiding enemies — gray squirrels — strange squirrel migrations — tangled tails — tufted-eared squirrels — fox squirrels — other colorful tree squirrels — ground-dwelling squirrels — woodchucks and marmots — "ground-hog day" — hoary marmots, profound sleepers — prairie dogs and their dog towns — a prairie dog secret — prairie dog lynchings — chipmunks — spermophiles and susliks — thirteen-striped ground squirrels and others — flying squirrels, gliders of the night — pocket gophers: a life in total darkness — pocket mice: no heavier than an ounce — kangaroo rats — beavers — marvels of beaver construction — "devil's corkscrews" — springhaas, jumping hares of Africa.

SCURRIERS, JUMPERS, SWIMMERS, AND BURROWERS

304

Rice rats — an aggressive female — other rats and mice of Central and South America — American harvest mice: first-rate builders and acrobats — white-footed mice — grasshopper mice, ferocious hunters — cotton rats — pack rats and their "castle" — fish-eating rats — hamsters — true lemmings — strange lemming migrations — water voles or water rats — muskrats are only big meadow mice — how the muskrat got its name — pine mice and the great damage they do — common field mice, meadow mice, or voles — mouse plagues — gerbils — Old World rats and mice and their New World descendants — the true rats, quarrelsome and quick to learn — curious tales about rats — great mother of rodents — common mice — snared by a spider — "singing mice" — mice in the laboratory — bandicoot rats, raiders of the rice fields — rodent oddities of Australia — dormice — jumping mice — jerboas, "kangaroos" of the Old World's deserts — blind rats of southeastern Europe — bamboo rats, tastier than pork.

PORCUPINES, GUINEA PIGS, AND THEIR RELATIVES

351

Old World porcupines, "sword-rattling warriors" — New World tree porcupines — 30,000 quills and how they can kill — Patagonian caviés — capybaras — hunting the capybara — pacas and agoutis, rabbit-like rodents of the American tropics — false pacas — viscachas — chinchillas, important fur-bearers — breeding chinchillas — hutias and coypu rats, valuable for food and fur — other interesting dwellers in the "land of rodents" — tuco tuco: bold enough to attack sheep — African cane rats — gundis and World War II.

THE WHALES, DOLPHINS, AND PORPOISES**376**

How smart is a whale? — love among the whales — birth of a whale — hunting the whale — whale products — ambergris — the whale in danger — Jonah and the whale — sailor inside a whale — toothed whales — family life of the sperm whales — strange mass suicide of whales — beaked whales — cowfish — goose-beaked whales — bottle-nosed whales — white whales — counting a whale's heartbeats — Eskimo magic — narwhals, whales with tusks — the narwhal and the unicorn — dolphins — dolphin and the schoolboy — common dolphins — birth of a dolphin — killer whales — blackfish follow their leaders to death — river dolphins — true porpoises — saved by a porpoise — harbor porpoises and their relatives — whalebone or baleen whales — gray whales, vanishing giants of the North Pacific — rorquals, fastest of the whales — "whale with a wing" — humpback whales and their antics — blue whales, biggest animals that ever lived — a twenty-five-foot baby — right whales and bowheads.

THE WILD DOGS**424**

The great order of carnivores — wolves: not so fierce as reputed — wolves yesterday and today — the wolf as a hunter — its call — crossbreeding with dogs — the werewolf — human children reared by wolves — coyotes, wild singers — dingos, Australia's wild dogs — jackals — Arctic foxes, hunter of the frozen tundra — sleeping on the snow — red foxes — fox farming — gray foxes, the only ones that climb trees — enemies of the gray fox — kit foxes and swift foxes — chamas — fennec foxes and their enormous ears — the fox that migrates — raccoon dogs — Antarctic "wolves" — foxes of the pampas and savannas — foxes that walk on "stilts" — bush dogs — dholes, powerful wild dogs of India — Cape hunting dogs, outlaws of the African brush — an African dog town.

THE BEARS — SHAGGY GIANTS OF THE FOREST**458**

A close look at the bears — their family life — tame bears — bears of yesterday — American black bears — winter babies — not all black bears are black — the great grizzly in action — "the unexpected old bear" — black bears of other lands — moon bears — Andean black bears or spectacled bears — brown bears, including the biggest — unaggressive giants — Eurasian brown bears — Manchurian grizzlies — Syrian brown bears — sun bears — polar bears — sloth bears.

RACCOONS, PANDAS, AND THEIR FAMILY

479

Raccoons: intelligent and neat — life of a young raccoon — esteemed for flesh and fur — cacomistles, “miner’s cats” — creatures of rocky places — coatis: friendly but long-fanged — good climbers, staunch fighters — “a harum-scarum lot” — kinkajous, “honey bears” with remarkable tails — their curious feeding habits — kinkajous live long — giant pandas, forest-dwellers of China and Tibet — bearlike, but not a bear — how the great panda eats — lesser pandas.

THE WEASEL AND ITS FAMILY

493

Weasels: small but strong — ermine — why some weasels are white in winter — long-tailed weasels — short-tailed weasels — pygmy weasels — the kolinsky — minks — mink fur and farms — common polecats — hunting with ferrets — healing powers of the ferret — martens and sables, savage fighters — the fabulous Russian sable and others — stone marten and sweet marten — American pine martens — the “honey dog” — fishers, most ferocious of the martens — tayras, grisons, and zorillas — wolverines, ruthless destroyers — “the glutton” — common badgers of Europe and Asia — a remarkable badger “funeral” — American badgers — badgers in winter — “delayed” babies — ratels — skunks — the skunk’s big guns in action — spotted and hog-nosed skunks — otters, playful fishermen — sea otters, biggest of their tribe — life of a baby sea otter — other interesting otters.

GENETS, CIVETS, MONGOOSES, AND THEIR KIN

535

Genets: small, savage marauders — linsangs, handsome tree “cats” of the jungle — civet cats, the skunks’ Old World rivals — their scent — palm civets — curious civet cats of Madagascar — mongooses, expert snake-killers — Europe’s only mongoose — crab-eating mongooses — Indian mongooses — “the tracker” — Africa’s horde of mongooses — fossas, big cats of Madagascar.

HYENAS AND AARDWOLVES — EATERS OF CARRION

550

The bone-crunchers — laughing hyenas, beasts of might and magic — the hyena’s laugh — hyena fact and legend — death of a hyena — an odd female — young hyenas — hyenas striped and brown — aardwolves, African termite-eaters.

THE CATS — STALKERS AND SPRINGERS**559**

A cat's claws — exquisitely keen senses — seeing in the dark — cats old and new — some interesting smaller wild cats — Europe's wild cats — jungle cats — kaffir cats and black-footed cats — lynxes and bobcats — family life of the lynx — quick thinking of a bobcat mother — Old World lynxes — caracals — ocelots: famed for their fur — cats with long legs — cats that eat fruit — cats that go fishing — marbled cats — golden cats — Chinese money cats — rusty spotted cats — desert cats — rock-dwellers — some interesting South American cats.

THE BIG CATS**573**

Cougars: powerful voices and bodies — not a man-killer — a tame cougar — cougar kittens — leopards or panthers — intelligence of the leopard — a fearless animal — “false leopards” — clouded leopards — snow leopards — lions — man-eating lions — trained lions — the lion's honeymoon — tigers, Asia's biggest cats — climbers and swimmers — tiger kittens — tigers on the prowl — tigers with a taste for human flesh — appeasing the tiger's spirit in Siberia — hunting the tiger — jaguars, biggest cats of the New World — a dangerous sport — the children and the jaguar — cheetahs, fastest animals on land — hunting with a cheetah.

SEA LIONS, WALRUSES, AND SEALS**599**

Eared seals or sea lions — eating tools and habits — northern fur seals — their mating habits — the fur trade and its excesses — southern fur seals — California sea lions — trained seals and their antics — Steller's sea lion: it may weigh a ton — teaching a baby to swim — other eared seals or sea lions — walruses — life of a walrus — earless seals or true seals — harbor seals — ringed seals, most northerly of mammals — harp seals: great herds of the North Atlantic — gray seals: with faces almost human — battles at mating time — bearded seals — leopard seals — elephant seals — some other interesting seals.

SEA COWS, MANATEES, AND DUGONGS**622**

Dugongs, big game of the oceans — northern sea cows, giants of yesterday — manatees: too peaceable for their own good — manatees make good parents.