

ANIMALS

VOLUME EDITOR
Prof. Dr Yong Hoi Sen



Contents



CLASSIFICATION OF MALAYSIAN ANIMALS 6

Yong Hoi Sen

INTRODUCTION 8

Ahmad Mustaffa Babjee

Animals and people 10

Ahmad Mustaffa Babjee

MAMMALS 12

Yong Hoi Sen

**Evolution of the mammals
of Sundaland 14**

Earl of Cranbrook

The orang utan 16

Mahedi Andau and Edwin Bosi

Monkeys and gibbons 18

Sivananthan Elagupillay

**The elephant, the tapir
and the rhinoceros 20**

Mohd Khan bin Momin Khan

The tiger and other cats 22

Sivananthan Elagupillay

The sun bear 24

Lim Boo Liat

Otters, civets and mongooses 26

Lim Boo Liat

The seladang and wild pigs 28

Lim Boo Liat

Deer and mouse deer 30

Pan Khang Aun

The pangolin and porcupines 32

Lim Boo Liat

Bats 34

Lim Boo Liat

Squirrels and the flying lemur 36

Lim Boo Liat

Shrews, rats and mice 38

Lim Boo Liat

BIRDS 40

Yong Hoi Sen

Birds of prey 42

Siti Hawa bt Yatim

Nocturnal birds 44

Siti Hawa bt Yatim

Songbirds 46

Siti Hawa bt Yatim

Swifts and swiftlets 48

Leh Moi Ung

Pheasants and the jungle fowl 50

Siti Hawa bt Yatim

Pigeons and doves 52

Siti Hawa bt Yatim

Hornbills 54

Siti Hawa bt Yatim

Kingfishers and woodpeckers 56

Siti Hawa bt Yatim

Waterbirds 58

Siti Hawa bt Yatim

REPTILES AND AMPHIBIANS 60

Yong Hoi Sen

The crocodile and the false gharial 62

Jasmi bin Abdul

Tortoises and turtles 64

Lim Boo Liat

Lizards 66

C. H. Diong

Flying reptiles 68

Lim Boo Liat

Poisonous snakes 70

Lim Boo Liat

Nonpoisonous snakes 72

Lim Boo Liat

Frogs and toads 74

Kiew Bong Heang

AQUATIC ANIMALS 76

Yong Hoi Sen

Freshwater ecosystems 78

Mohd Zakaria-Ismail

Carp and catfishes 80

Mohd Zakaria-Ismail

Aquarium fishes 82

Mohd Zakaria-Ismail

Mudskippers 84

Durriyyah S. H. Adli

Freshwater crabs, prawns and snails 86

Peter K. L. Ng and Stephen Ambu

Fiddler, hermit and soldier crabs 88

Peter K. L. Ng

CHELICERATES, MYRIAPODS AND ANNELIDS 90

Yong Hoi Sen

Horseshoe crabs 92

Peter K. L. Ng

Spiders 94

Yong Hoi Sen

**Scorpions, centipedes
and millipedes 96**

Stephen Ambu

Leeches and earthworms 98

Stephen Ambu

INSECTS 100

Yong Hoi Sen

Butterflies and moths 102

Chey Yun Khen

Dragonflies and damselflies 104

Y. Norma-Rashid

Bees, wasps and hornets 106

Khoo Soo Ghee

Ants and termites 108

Arthur Y. C. Chung

Stick and leaf insects 110

Chan Chew Lun

Beetles and weevils 112

Mohamed Salleh Mohamedsaid

Cicadas and bugs 114

Mohd Sofian Azirun

Grasshoppers and crickets 116

Yong Hoi Sen

**Cockroaches, houseflies
and blowflies 118**

Yap Han Heng

Mosquitoes 120

Yap Han Heng

PARASITES 122

Yong Hoi Sen

Malaria and filaria parasites 124

Mak Joon Wah

**Roundworms, tapeworms
and flukes 126**

Mak Joon Wah

Bedbugs, fleas and lice 128

Lee Han Lim

Ticks and mites 130

Ho Tze Ming

CONSERVATION 132

Yong Hoi Sen

In situ and ex situ conservation 134

Jasmi bin Abdul

GLOSSARY 136

BIBLIOGRAPHY 138

INDEX 140

PICTURE CREDITS 143

