

This book is the second in the 50 Questions series. Text © 2011 Tanya Lloyd Kyi Illustrations © 2011 Ross Kinnaird

ANNICK PRESS LTD.

All rights reserved. No part of this work covered by the copyrights hereon may be reproduced or used in any form or by any means—graphic, electronic, or mechanical—without prior written permission of the publisher.

Edited by Catherine Marjoribanks Copyedited by Elizabeth McLean Cover and interior design by Irvin Cheung / iCheung Design, inc. Cover illustration by Ross Kinnaird oil barrel image: © istockphoto.com / Valerie Loiseleux

We acknowledge the support of the Canada Council for the Arts, the Ontario Arts Council, and the Government of Canada through the Canada Book Fund (CBF) for our publishing activities.



CATALOGING IN PUBLICATION

Kyi, Tanya Lloyd, 1973-

50 poisonous questions: a book with bite / Tanya Lloyd Kyi; illustrated by Ross Kinnaird.

(50 questions series)

RA1214.K95 2011

Includes bibliographical references and index. ISBN 978-1-55451-281-2 (bound).—ISBN 978-1-55451-280-5 (pbk.)

j615.9

1. Poisons—Juvenile literature. I. Kinnaird, Ross, 1954- II. Title. III. Title: Fifty poisonous questions. IV. Series: 50 Questions series; 2

C2010-906868-8



Distributed in the U.S.A. by

Firefly Books (U.S.) Inc. P.O. Box 1338 **Ellicott Station** Buffalo, NY 14205

Visit our website at www.annickpress.com

Visit Tanya Lloyd Kyi at www.tanyalloydkyi.com

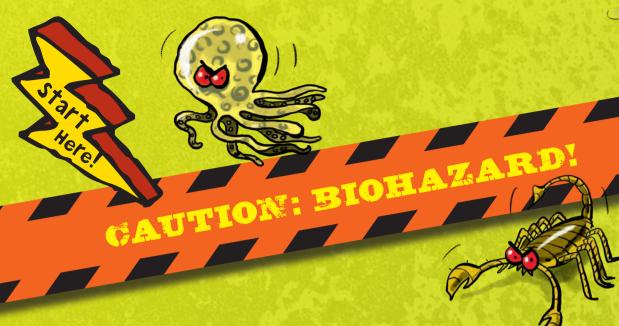
Acknowledgments

A big thank you to Catherine Marjoribanks and Elizabeth McLean for guiding this book, and to Irvin Cheung for a design which exploits all its poisonous possibilities.



TABLE OF CONTENTS

2	Caution: Biohazard!
4	Spikes & Fangs
16	CHAPTER 2 Bugged Out
26	CHAPTER 3 Lethal Leaves
36	CHAPTER 4 Murderous Minerals
50	CHAPTER 5 Gas Blasts
61	CHAPTER 6 Vile Villains
72	CHAPTER 7 Spills & Disasters
87	CHAPTER 8 Poison Positive
100	conclusion The Last Gasp
103	FURTHER READING
104	BIBLIOGRAPHY
106	INDEX



Introduction

STOP! DO NOT, UNDER ANY CIRCUMSTANCES, EAT THIS BOOK.

Do not drink it. Do not touch it without the protection of latex gloves. Every single page is coated in poison. Unidentified noxious substances might drip from the spine at any time, and the fumes have yet to be tested in reliable laboratories. While reading some chapters, you may want to hold your breath.

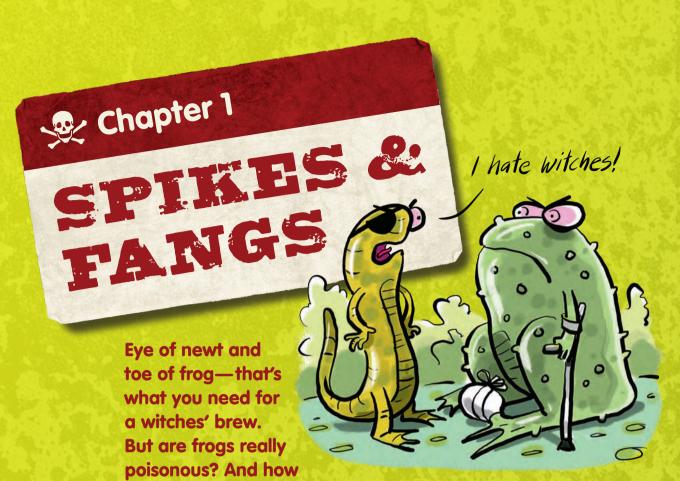


2

The poisons contained here range from the venom of the tiniest ant to the toxic waste of the largest factories. There are spider bites, jellyfish tentacles, scorpion tails, berries, weeds, leaves, rocks, gases, lakes, clouds, chemical corporations, and ocean bays. For safety reasons, oceans should probably be avoided altogether.

FEED (OR TOUCH) THE ANIMALS.





noxious is a newt? What most of us know about venomous snakes, amphibians, and sea creatures is a mixture of fact and fiction. Some of it comes from textbooks and some comes from scary stories and superstitions.

In reality, a *poison* is a substance that's harmful when eaten, breathed, or absorbed. *Venom* is a poison that's injected—as in, through a snake's fangs. And *toxin* is another name for a poison produced by a living thing. The questions in this chapter help sort the real toxins from the tall tales.

SLIPPERY AND SLITHERING, maws dripping with venom, snakes have wound their way into horror movies and nightmares. Not many of them deserve this frightening reputation. There are almost 3000 species of snakes in the world and many

of them do have poisonous saliva. But a snake needs two things to be considered venomous—a toxin, and a way to inject it.

It needs fangs!

Only about 500 species have teeth long and sharp enough to effectively poison their prey. The most toxic of these is the beaked sea snake, a brown-patterned water-dweller the length of a skipping rope. With its specially adapted lungs and nostrils, the serpent can remain underwater for up to eight hours, feasting on fish. But when threatened by a predator, it can easily turn aggressive.

QUESTION 1

What has the

fiercest fangs?

On land, the world's most venomous snake is the inland taipan of Australia. It injects enough poison in one bite to kill 100 people.

Neither of these snakes is responsible for many human deaths. That's because there aren't a lot of people swimming the Indian Ocean or hiking the Australian outback. Most of the 30,000 to 40,000 people killed by snakes each year live in rural areas of the tropics, in developing countries where people walk barefoot and the nearest medical clinic might be hours away.





FANG FLAVORS

Snake venom is a combination of proteins and enzymes—a kind of super-saliva that starts dissolving prey on contact.

The three main varieties of venom have scientific names that give you a clue to understanding what makes them so dangerous. For starters, the word "toxic" refers to a poisonous substance produced by living cells or organisms. Since hemo is the Greek word for "blood," a hemotoxic venom is one that affects the

blood; neuro means "nerve," so a neurotoxic venom affects the nervous system, causing breathing problems and paralysis (not to mention excruciating pain); and cyto means cell, so a cytotoxic venom affects only the cells in the area of the bite.

56 Flavors



Even in Australia, with more than 60 poisonous species of snake, only a few people die each year from snake bites. People are more likely to be killed by lightning.