

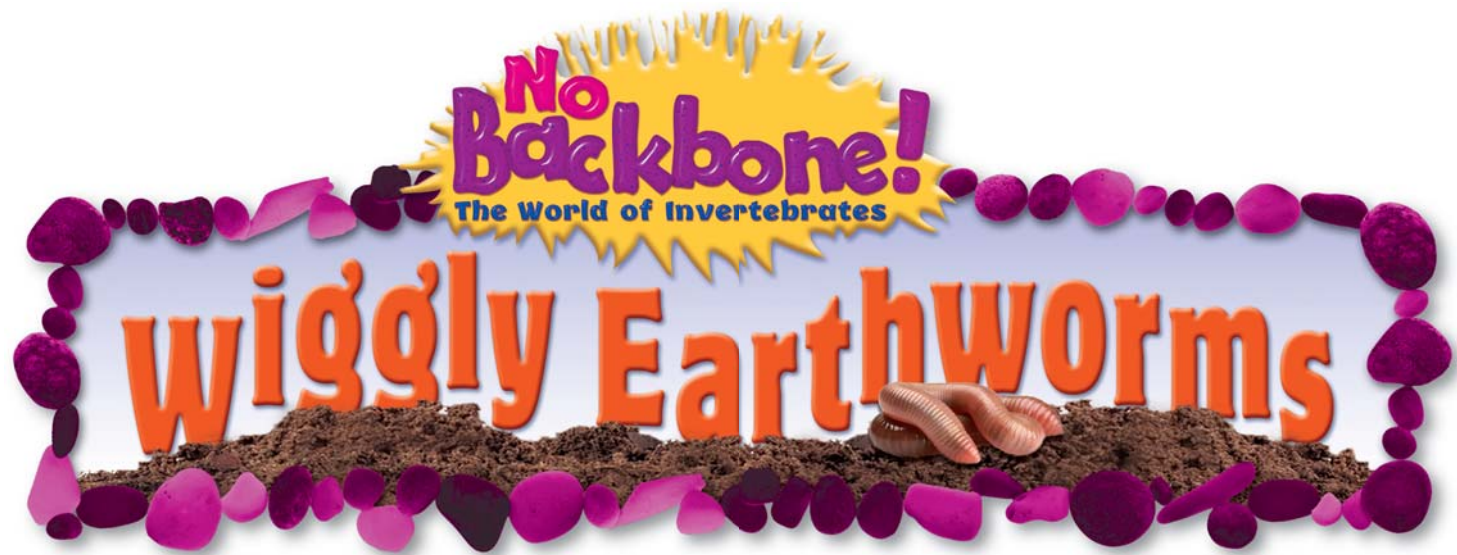
**No
Backbone!**

The World of Invertebrates

wiggly Earthworms

by Natalie Lunis

[Intentionally Left Blank]



by Natalie Lunis

Consultants:

Dr. John W. Reynolds
Oligochaetology Laboratory
Kitchener, Ontario, Canada

Patricia S. Sadeghian
Associate Curator of Invertebrate Zoology
Santa Barbara Museum of Natural History

BEARPORT
PUBLISHING

NEW YORK, NEW YORK

Credits

Cover, © Ed Reschke/Photolibrary and © Pavel Lebedinsky; TOC, © Mashe/Shutterstock; 4–5, © Dwight Kuhn/Dwight Kuhn Photography; 6, © Bruce Davidson/Nature Picture Library; 7, © Paul Debois/Gap Photo/Visuals Unlimited, Inc.; 8T, © Dwight Kuhn/Dwight Kuhn Photography; 8B, © Dwight Kuhn/Dwight Kuhn Photography; 9, © Phil Degginger/Alamy; 10–11, © Ed Reschke/Photolibrary; 12–13, © David M. Dennis/Photolibrary; 14T, © Dwight Kuhn/Dwight Kuhn Photography; 14B, © Dwight Kuhn/Dwight Kuhn Photography; 15, © Dwight Kuhn/Dwight Kuhn Photography; 16, © Dwight Kuhn/Dwight Kuhn Photography; 17, © Tony Wharton/FLPA; 18–19, © Andrew Bailey/FLPA; 20–21, © Dwight Kuhn/Dwight Kuhn Photography; 22TL, © Robert Maier/Photolibrary; 22TR, © Peter Verhoog/Foto Natura/Minden Pictures/Getty Images; 22BL, © N A Callow/NHPA/Photoshot; 22BR, © Dr. John D. Cunningham/Visuals Unlimited, Inc.; 22spot, © Alle/Shutterstock; 23TL, © Jim Wehtje/Photodisc/Getty Images; 23TR, © Dwight Kuhn/Dwight Kuhn Photography; 23BL, © Dwight Kuhn/Dwight Kuhn Photography; 23BR, © Ed Reschke/Photolibrary; 24, © Dusty Cline/Shutterstock.

Publisher: Kenn Goin

Editorial Director: Adam Siegel

Creative Director: Spencer Brinker

Original Design: Dawn Beard Creative

Photo Researcher: Q2A Media: Farheen Aadil

Library of Congress Cataloging-in-Publication Data

Lunis, Natalie.

Wiggly earthworms / by Natalie Lunis

p. cm. — (No backbone! The world of invertebrates)

Includes bibliographical references and index.

ISBN-13: 978-1-59716-751-2 (library binding)

ISBN-10: 1-59716-751-7 (library binding)

1. Earthworms—Juvenile literature. I. Title.

QL391.A6L86 2009

592'.64—dc22

2008030827

Copyright © 2009 Bearport Publishing Company, Inc. All rights reserved. No part of this publication may be reproduced in whole or in part, stored in any retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without written permission from the publisher.

For more information, write to Bearport Publishing Company, Inc., 101 Fifth Avenue, Suite 6R, New York, New York 10003. Printed in the United States of America.

10 9 8 7 6 5 4 3 2 1



Contents

Wet and Wiggly.....	4
Short and Long.....	6
From End to End	8
On the Inside.....	10
Underground Living.....	12
Worm Food	14
Worms for Dinner.....	16
Getting a Grip.....	18
Good for the Earth.....	20
 A World of Invertebrates.....	 22
Glossary	23
Index.....	24
Read More	24
Learn More Online	24
About the Author.....	24

The background of the page is a close-up photograph of several earthworms in a dark, moist soil environment. The worms are various shades of brown and pinkish-red, with their segmented bodies clearly visible. They are surrounded by green moss and small white roots. A decorative border made of small, smooth, light-colored pebbles runs along the top and left sides of the page, framing the text area.

Wet and Wiggly

Earthworms are covered with wet, slimy skin.

Their long, wiggly bodies have no legs and no bones.

Many people think they are gross.

Yet earthworms are one of the most important animals in the world.



Earthworms are
found all over the world.
They can live wherever
the soil is not frozen
or too dry.

Short and Long


There are about 4,900 kinds of earthworms.

The smallest is about one inch (2.5 cm) long.

The largest is 12 feet (3.6 m) long—about the same length as a big surfboard.

**African giant
earthworm**



A close-up photograph of a person's open palm holding a large, segmented earthworm (nightcrawler) and some dark, moist soil. The worm is coiled in the center of the palm. In the upper left corner, there is a light green, oval-shaped callout box containing text. In the lower right corner, there is a yellow oval label with an arrow pointing to the worm. The background is a soft-focus green.

The best-known
earthworm in the United
States is about 6 inches
(15 cm) long. Many people call
this worm the *nightcrawler*
because it stays underground
during the day and comes
out at night to eat.

nightcrawler



African giant earthworm 6

backbone 22

blood 10

body 4, 8–9, 10–11, 12, 16, 18, 22

brain 10–11

bristles 8, 18

castings 14–15, 21

clam worm 22

Index

cocoons 8

eggs 8

enemies 16–17, 18–19

food 10, 14–15

hearts 10–11

intestine 10–11, 14–15

leech 22

marine worm 22

mouth 11, 14

nightcrawlers 7, 12

plants 13, 14–15, 20–21

potworm 22

segments 8–9

size 6–7

skin 4

soil 5, 8, 12–13, 14–15, 20–21

tunnels 12–13, 16, 18

Read More

Himmelman, John. *An Earthworm's Life*. New York: Children's Press (2000).

Llewellyn, Claire, and Barrie Watts. *Earthworms*. New York: Franklin Watts (2002).

Learn More Online

To learn more about earthworms, visit

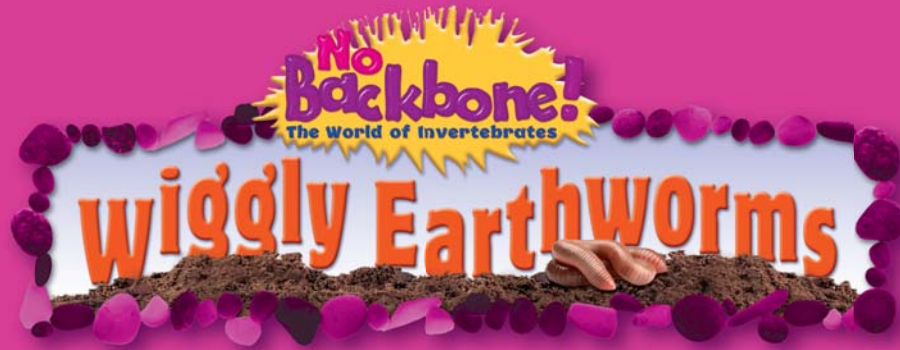
www.bearportpublishing.com/NoBackbone-CreepyCrawlers

About the Author

Natalie Lunis has written many science and nature books for children.
She lives in the Hudson River Valley, just north of New York City.



[Intentionally Left Blank]



Earthworms have long, wiggly bodies that are covered with wet, slimy skin. Many people think they are gross. Yet earthworms are one of the most important animals in the world. Why? Look inside to find out.

Bloodsucking Leeches

Creeping Land Snails

Leggy Centipedes

Roly-Poly Pillbugs

Stinging Scorpions

Wiggly Earthworms

BEARPORT
PUBLISHING

www.bearportpublishing.com

