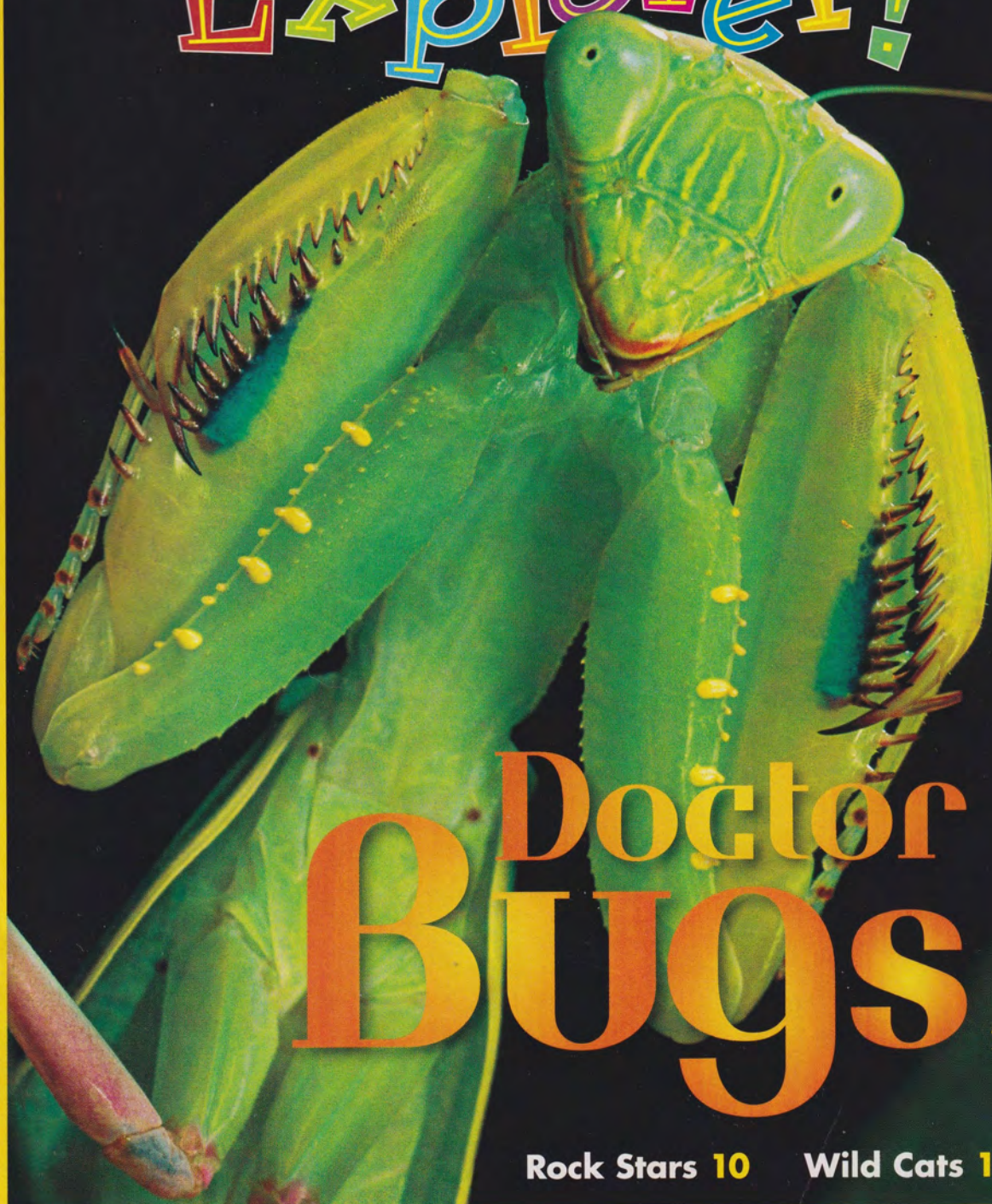


PIONEER EDITION

NATIONALGEOGRAPHIC.COM/NGEXPLORER/PIONEER

MARCH 2008

NATIONAL GEOGRAPHIC *Explorer!*



Doctor BUGS ²

Rock Stars **10** Wild Cats **18**



© MARK MOFFETT/AMNDEN PICTURES

A long-horned beetle



Reading Strategy: If you come across something you don't understand, stop to figure it out.

Doctor BUGS

By Mark W. Moffett

Research Scientist, Smithsonian Institution



**Meet some of the world's
wildest looking insects.**

Strange things happen when you study bugs. Insects have bitten, stung, and slimed me. One bug even laid eggs on my shoelaces! Even so, I love my job. I'm a scientist who studies bugs. I have liked bugs since I was just a kid (right).



Insects Inside and Out

All insects are alike in some ways. For example, they don't have bones. Instead, they have **exoskeletons**, or hard outer coverings. These covers protect the insects' insides.

All insects have three main body parts. The head is on top. Then there is the **thorax**, or middle. Six legs grow out of the thorax. The third part is the **abdomen**.

That is how insects are alike. Now find out how they are different. Just look at some strange bugs I've seen!

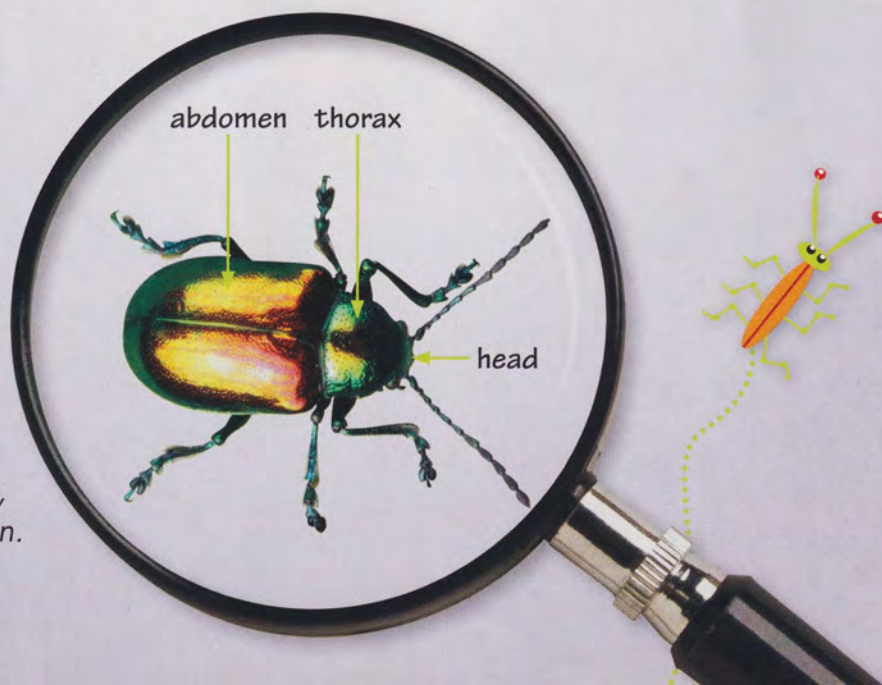
Copycat Bugs

The Burmese flower mantid is a favorite bug of mine. This insect acts like a copycat. It always looks like something else.

When the mantid is young, it looks like an ant. Ants sting, so other animals stay away. Later in life, this bug looks like part of a flower. It hides on flowers and eats bugs that come by.

Many insects look or act like something else. That is called **mimicry**. For example, some bugs hide by looking like twigs or leaves.

Bug Body. Like this beetle, every insect has three main body parts: the head, the thorax, and the abdomen.



Fake Flower. *This Burmese flower mantid looks like part of a flower.*



Standing Out

Some insects hide, but others stand out. On an island in Asia, I studied a real show-off. It is the stinkbug.

Its red color is a warning. It tells other animals that eating stinkbugs is a bad idea. That's because they give off a bad smell—and taste nasty.

Another insect that stands out is the giant katydid. I saw one in South America. When I got close, it spread out its large wings.

The wings had spots that looked like giant eyes. The spots trick other animals. They make them think the katydid is bigger than it is.

Battling Bugs

When I was little, I read about flies with antlers. They are called stag flies. I wanted to see some. It took a while, but it finally happened.

To see them, I went to New Guinea, an island in Asia. I hiked through a rain forest. I looked for the kind of fallen tree where these bugs live.

It was fun to watch these bugs. Each male had its own small area on the fallen tree. It used its antlers to keep other males away. Antlers can be different sizes. The bigger, the better, it seemed. The flies with larger antlers won fights more often.

Bug Battle. Two male stag flies get ready to fight.



Scary Spots? Spots on a giant katydid look like huge eyes. They might scare a predator away.



Other Oddballs

The giraffe weevil is another odd insect I really like. I saw this weird wonder in Madagascar, an island off the coast of Africa.

The male weevil has a long neck. It uses its neck to roll up leaves. Then a female lays an egg inside each leaf. When the egg hatches, the baby weevil eats the leaf.

The long-horned beetle is another odd bug. It's the critter you see on page 2. I saw a big one when I climbed a tree in a rain forest. The beetle was as big as my hand. It had huge jaws.

I tried to carry it down to the ground. The bug was not pleased! First it made a noise. Then it bit me.

Millions of Marvels

The more insects I see, the more I learn how cool bugs are. They are helpful too. Some beetles keep Earth clean by eating trash. Mantids eat insects that would cause problems.

Millions of insects are busy at work. I am busy too. There are always new bugs for me to learn about!

Wordwise

abdomen: rear part of an insect's body

exoskeleton: outer covering of an insect

mimicry: looking or acting like another animal or a plant

thorax: middle part of an insect's body



Nifty Neck. This male giraffe weevil's neck is two or three times longer than a female's.

Insect Oddball. *The author saw this strange beetle in Asia.*



Golden Glow. *Can you guess how the jewel beetle got its name? Its wings shine like gold.*

