

# BIG FAT DRUM

BY HANNAH SCHARDT

Super-smart and super-social, elephants have a lot to say—and many different ways of saying it.

JAGDEEP RAJPUT/ARDEA (6-7); TONY HEALD/NPL/MINDEN PICTURES (INSET)

## SOUND

You may think you know how *elephants* communicate: With trunks held high, they blast the air with loud trumpeting sounds. But that's not the only way elephants make themselves heard within the herd. These massive mammals have a vocabulary to match their size: more than 70 different vocal sounds, from

These two Asian elephants seem to be having a friendly chat.

"Hey, Ma!" This baby African elephant makes a loud cry to get its mother's attention.

barks to snorts to cries.

Elephants make rumbles—deep, vibrating noises—more often than they do any other sound. An elephant makes its rumble the same way a person speaks: with its *larynx* (LAIR-inks, "voice box"). But an elephant's huge larynx produces very low sounds. In fact, some rumbles are too

low for human ears to hear. A person standing nearby may feel the vibrations. But elephants can pick up these rumbles from miles away! They use special sensors in their feet to "hear" the distant vibrations through the ground. The sounds can say anything from "Hey, I'm ready to mate!" to "Look out! There's a hungry lion nearby."

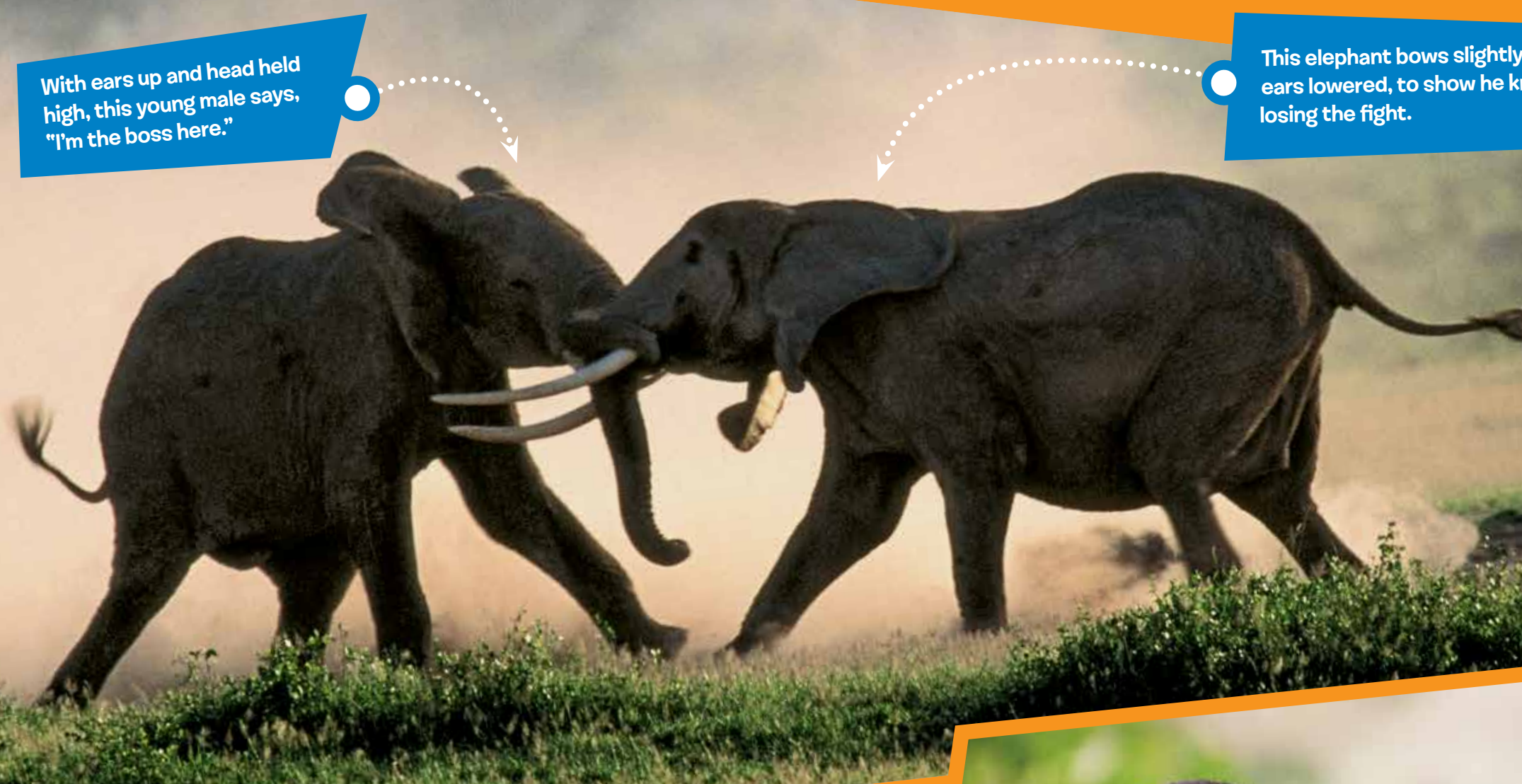


HEAR IT!





With ears up and head held high, this young male says, "I'm the boss here."



This elephant bows slightly, with ears lowered, to show he knows he's losing the fight.

## SMELL

If you ever wonder what an elephant is paying attention to, don't watch its eyes. Watch its trunk! The big body may look still. But the tip of that super-sensitive smeller is always on the move, sniffing out the answers to some important questions: *What did my friend eat for breakfast? Who's*


*been to this watering hole recently? Are there any predators nearby?*

Many of those answers can be found in smelly "messages" left behind by other elephants. A trickle of *urine* (pee) or a smear of *saliva* (spit) can share a lot of information about where an elephant has been and what it's been doing. *Smell you later!*

## BODY LANGUAGE

An elephant can also say a lot without making a sound. All it needs to do is strike a pose. Some gestures—a twitch of an ear, a wag of the head—are so small that most people wouldn't even notice them. But scientists who study elephants have discovered that even when the animals are silent, they are using their bodies to "chat." For example, that ear twitch may mean "I'm done here—let's go." And the head wag may translate as "Let's play!"

Some elephant "sign language" is easier to translate. A happy elephant will flap both ears and wag its tail. Faced with a threat, an elephant will flare its ears and stick its tail out straight. Sometimes, a whole herd gets spooked. All the elephants stand perfectly still, holding their trunks high in the air or draping them on the ground. Scientists call this "synchronized (SING-kruh-nized) freezing." They think it may help the elephants focus all their attention on the sounds and smells around them.



A quick trunk-sniff to the mouth tells one elephant what a buddy had for lunch.

ART: WOLFE (T); JAMI TARRIS (B)



## TOUCH

When human toddlers feel tired or sad, they may head for the comfort of a parent's lap. Elephant calves do something similar. Worn out from playing or stressed by an unfamiliar situation, a calf will tuck itself under Mom's big, sheltering body. (Elephants don't have laps!) That lets Mom know that her baby needs extra attention.

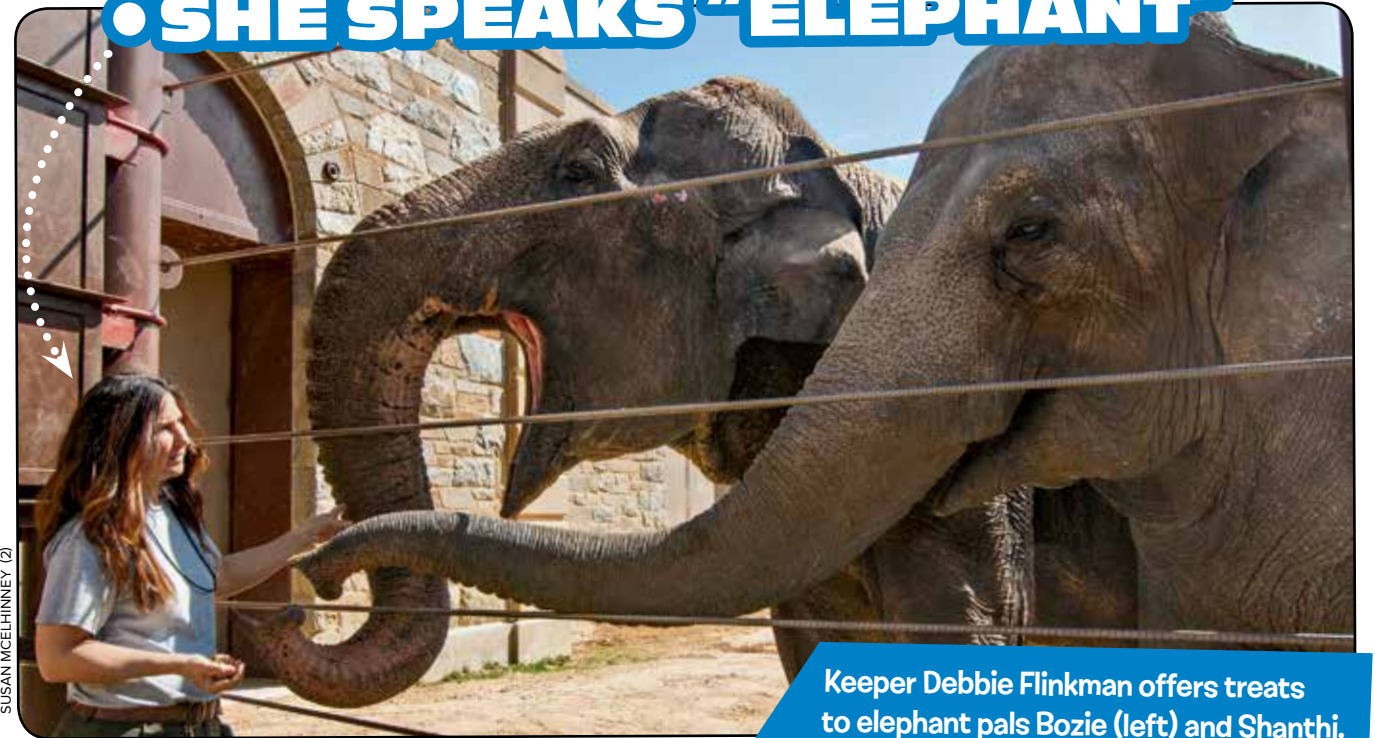
Moms and babies aren't the only elephants that get "touchy-feely." Throughout a herd, touching helps create bonds of family and friendship. One female may pat another with her trunk: "How's it going?" A male may twist his trunk around a female's: "I like you!" Or one elephant may use its trunk to shove another: "Back off! You're getting on my nerves." Who needs words when you have a trunk?

A young calf is comforted with gentle nuzzles from the adults in its herd.

MARTIN HARVEY/DRK PHOTO

## SHE SPEAKS "ELEPHANT"

SUSAN MCELHINNEY (2)



Keeper Debbie Flinkman offers treats to elephant pals Bozie (left) and Shanthi.

After 16 years as an elephant keeper at the Smithsonian's National Zoo in Washington, D.C., Debbie Flinkman speaks "elephant" pretty well. OK, so she doesn't have a trunk for trumpeting. And even her expert ears can't pick up rumbles that are too low for people to hear. But she knows the zoo's six Asian elephants better than most. She is a pro at interpreting what they "say."

One morning in the elephant house, Debbie tells zoo visitors to watch closely when Shanthi and Bozie, two 41-year-old elephants, greet each other. As soon as Shanthi appears, she puffs up her face to say hello. Both elephants flap their ears in greeting. Debbie explains that in elephant language this means, "I missed you so much! I'm happy to see you!" Shanthi and Bozie were raised

at different zoos and only met a few years ago. But they have become fast friends. "They were just together earlier this morning," says Debbie. "You'd think they hadn't seen each other in years!"

Just as in human families, though, not all elephants get

along all the time. One member of the zoo's herd, Swarna, recently got into a tiff with Ambika, the 68-year-old "grandmother" of the herd. On this morning, it's clear to Debbie that Ambika hasn't forgiven Swarna yet. "You can tell she's keeping an eye on her," says Debbie.

Swarna leaves the barn and Ambika relaxes: Her ears hang loose and her trunk drapes on the ground. But a few minutes later, Swarna walks back in. Ambika immediately ambles out into the yard. "You see?" says Debbie. "She doesn't want to be around someone she's been squabbling with."

After all their years together, the elephants also understand Debbie. When asked whether they know their names, Debbie laughs. "Their names—and about 50 other words!" 🐘



Bozie curls her trunk affectionately around Debbie's hand.