**Did Dinosaurs Have Day Care?** Nobody knows what buried them so quickly. Their den might have collapsed or flooded, or drifts of volcanic ash could have suffocated them. But 125 million years ago, an adult and 34 young psittacosaurs died suddenly—still huddled as they'd been in life. The recent discovery of their fossilized remains in China's Liaoning Province has opened new questions about dinosaur behavior. Was the adult psittacosaur the parent—or was it the babysitter?

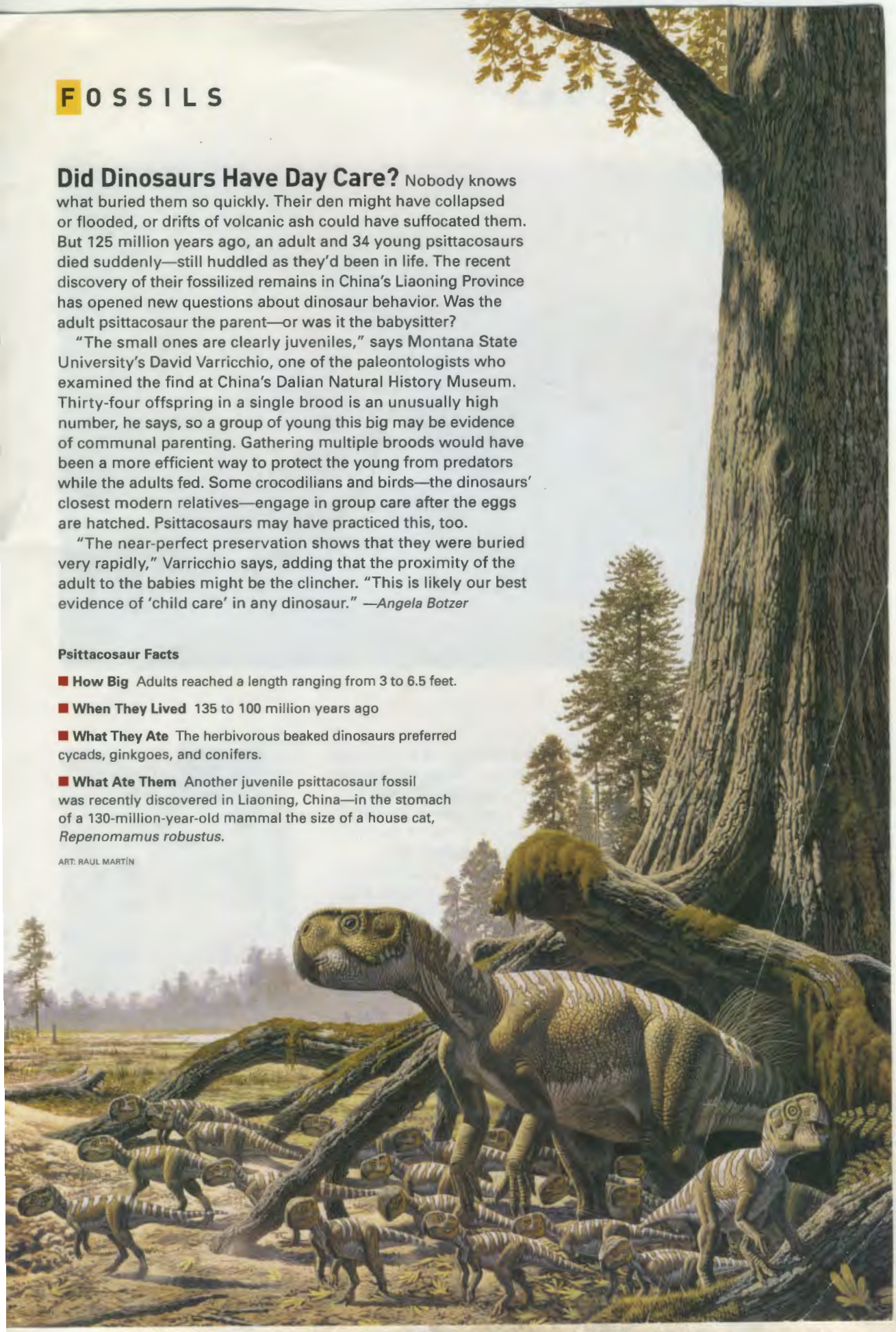
"The small ones are clearly juveniles," says Montana State University's David Varricchio, one of the paleontologists who examined the find at China's Dalian Natural History Museum. Thirty-four offspring in a single brood is an unusually high number, he says, so a group of young this big may be evidence of communal parenting. Gathering multiple broods would have been a more efficient way to protect the young from predators while the adults fed. Some crocodilians and birds—the dinosaurs' closest modern relatives—engage in group care after the eggs are hatched. Psittacosaurs may have practiced this, too.

"The near-perfect preservation shows that they were buried very rapidly," Varricchio says, adding that the proximity of the adult to the babies might be the clincher. "This is likely our best evidence of 'child care' in any dinosaur." *—Angela Botzer*

**Psittacosaur Facts**

- **How Big** Adults reached a length ranging from 3 to 6.5 feet.
- **When They Lived** 135 to 100 million years ago
- **What They Ate** The herbivorous beaked dinosaurs preferred cycads, ginkgoes, and conifers.
- **What Ate Them** Another juvenile psittacosaur fossil was recently discovered in Liaoning, China—in the stomach of a 130-million-year-old mammal the size of a house cat, *Repenomamus robustus*.

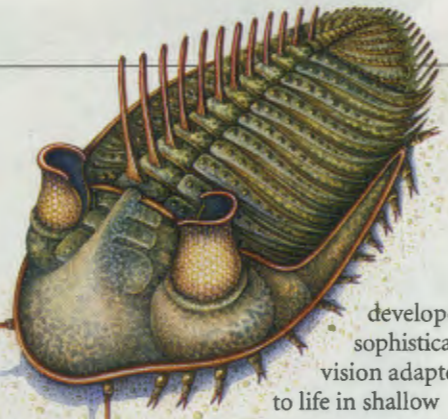
ART: RAUL MARTÍN



PALEONTOLOGY

# Prehistoric Sunshades

*Trilobites weren't blinded by the light*



Why would a two-inch-long trilobite—in this case the 406-million-year-old *Erbenochile erbeni* (right), a distant relative of today's horseshoe crab—need an eyeshade? Paleontologists Richard Fortey and Brian Chatterton think they know: for protection against sunlight. Found in southern Morocco, the *E. erbeni* fossil (below) "proves that animals in the Devonian period had already developed sophisticated vision adapted to life in shallow seas," Fortey says. The trilobite's tube-shaped eyes—made up of hundreds of transparent calcite crystals, each a light-transmitting lens—were set beneath a lobe that served as an eyeshade. Just as humans shield their eyes in sunlight to see farther, the trilobite's shade likely helped it see prey at a distance and look out for danger. Chatterton believes the spines on its body, far left, evolved as protection from the huge predatory fish that flourished in Devonian seas.

*—Angela Botzer*

PHIL CRABB, NATURAL HISTORY MUSEUM, LONDON; ART (TOP) BY LIZZIE HARPER

CONSERVATION

# Australia's Feathered Fireworks

More than a century ago European settlers marveled at the rainbow-like flocks of birds that swirled in the tens of thousands over northern Australia. Those birds have now nearly vanished, says conservationist Tim Nevard. But he's working to replenish the dwindling population of gouldian finches—or "jewel finches"—in the Queensland outback.

In the 1950s, wild gouldian finches numbered in the millions. But cattle ranching destroyed grasslands the finches need for food and habitat, and regular range burning, an Aboriginal practice that helps promote grass growth, declined. Today, about 2,500 finches are left throughout northern Australia.

For the past two years Nevard's Mareeba Wetland Foundation and other groups have reintroduced about 150 finches on a 5,000-acre reserve west of Cairns. So far, at least 16 wild chicks have been born. Transmitters with wire antennas (below) have been attached to more than a dozen adults. Tracking has located dead finches and identified predators. "We've learned that owls, tree snakes, and goshawks all take their toll," says Nevard. With this research, he aims to release finches to sites with fewer predators.

*—John L. Eliot*

WILL GOULDING, MAREEBA WETLAND FOUNDATION

## NG GRANTEE A Telling Tail

Discovering an ichthyosaur—a late Jurassic marine reptile—in Norway's fossil-rich Svalbard archipelago may not have been all that unexpected for paleontologist Jørn Hurum. Unearthing clues to a clash of sea monsters, however, was more unusual. "Seldom do we see any evidence of the way an animal died," says Hurum, whose work was funded in part by the National Geographic Society. "But this is a good case."

While preparing the 147-million-year old fossil—remarkable for its near-complete state and representing a new (yet-to-be-described) species—at an Oslo museum, Hurum noticed the creature was missing the end of its tail. When he encountered a crushed vertebra, he knew an earlier hunch was probably correct. A larger predator, most likely a pliosaur, had stalked the ichthyosaur from behind—and delivered a blow. The ichthyosaur appears to have sustained one bite over the hips and a second that clipped its tail.

Further analysis is needed to confirm the theory, but a mutilated tail would have compromised the ichthyosaur's ability to swim, forcing it to sink to its death. Burial by sediment at the bottom of the sea created an ideal environment for preservation—and discovery. *–Angela Botzer*



A 5.5-meter fossil is the most complete ichthyosaur (Greek for "fish lizard") found in the Arctic. Enormous eyes enabled it to be a nighttime feeder of cephalopods and fish.

IMAGES: REBEL ARTS (TOP), PRECITECH & WILL GRIDLEY