

Clamping down with over-size jaws, a wind scorpion lunches on a lizard in California's Mojave Desert.

EREMORHAX JOSHUAENSIS

big bite

Little known and lightning fast, wind scorpions wield the desert's most powerful jaws.

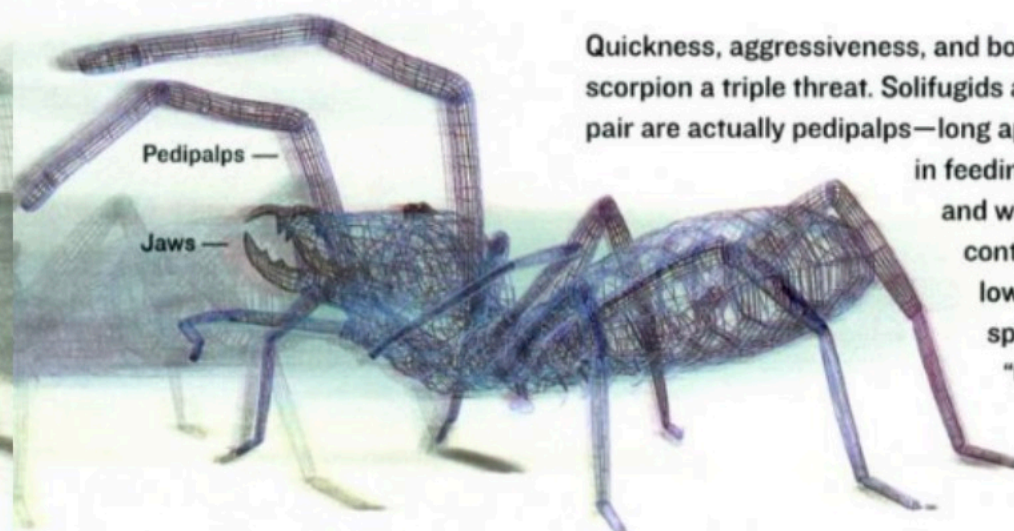


Text and photographs by Mark W. Moffett

As the sun rose over the desert in Israel, a bizarre little creature stared at me, then rushed back to its burrow. With beady eyes, a hairy body, and jaws that bulged like Popeye's forearms (left), it was something from a nightmare. I had approached it with caution since wind scorpions, though not venomous, can inflict a painful bite on humans—and death on their prey. Zealous carnivores, they attack insects, rodents, lizards, snakes, and small birds, seizing them with jaws that can reach up to a third of their body length—among the largest for their size in the animal kingdom. Wielding those jaws like a combination pincer and knife, they chew their victims into pulp with a sawing motion. They then exude an enzyme that liquefies the flesh, which they suck into their stomachs.

Not actually scorpions, these predators are solifugids, members of the Arachnida, a class that includes spiders, mites, ticks, and true scorpions. Sometimes known as sun spiders, and called camel spiders in North Africa and the Middle East because of their humped profile, wind scorpions weigh as much as two ounces and can have leg spans exceeding five inches. Most of the 1,100 species are nocturnal. Racing over the sand in the dark like super-charged dune buggies, they seem to know no fear.

LEFT AND BELOW: *GALEODES* SP.



Quickness, aggressiveness, and body-crunching jaws make the wind scorpion a triple threat. Solifugids appear to have ten legs, but the first pair are actually pedipalps—long appendages used as sensory organs in feeding, fighting, and mating. The length and wide spacing of the back legs, which contain more segments than those of fellow arachnids, maximize flexibility and speed. And then there are those jaws: "Ounce for ounce," says University of Tampa biologist Fred Punzo, "they deliver one of the most powerful bites in the animal kingdom."

ART BY GREGORY CHEVALIER AND YANN GOUMENT

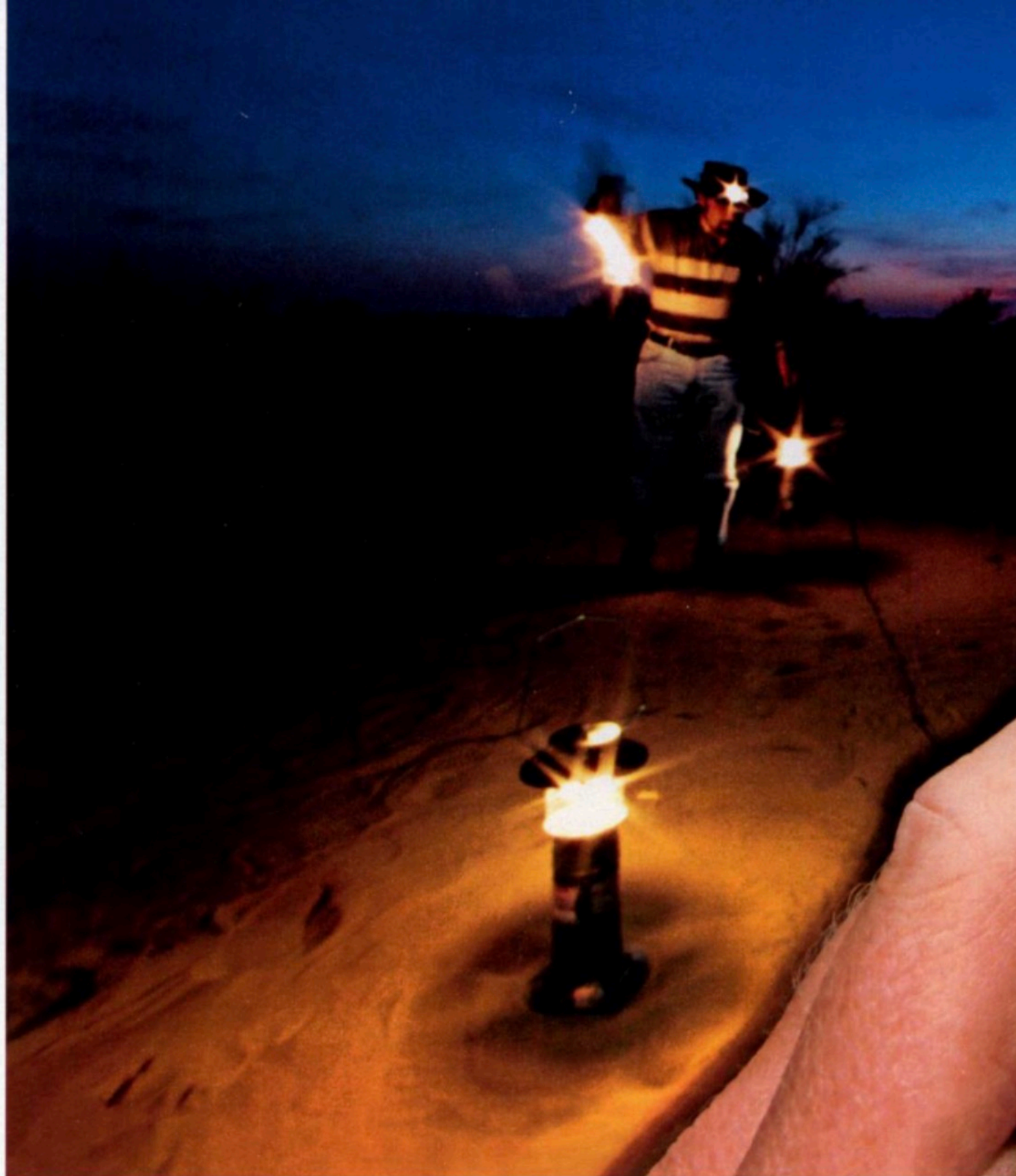


For the male, mating is a gamble: She may end the courtship—and his life.

Like everything else in their lives, sex for wind scorpions is fast and ferocious. In Iran, I blocked off a patch of desert for wind scorpions I had captured. A male (opposite, at top) gingerly approached a female, stroking her with his pedipalps. He then lunged at her so violently that he tore her body and damaged her legs before mating (top). If given the chance, the female might have preferred him as a meal, not a mate. In California, a female consumed her failed suitor's head (above). Motherhood seems to be the creatures' only respite from aggression. In some, like this Arizona species (below), the mother stands guard over her eggs and later her newborns. The violence starts early: Young may devour their siblings.

TOP AND LEFT: *GALEODES* SP.; MIDDLE: *EREMOCOSTA TITANIA*; BOTTOM: *BRANCHIA* SP.





In the Mojave Desert, I examined a newly captured specimen in a jar (above) as Warren Savary put out lanterns to collect other wind scorpions that rushed in to dine on insects attracted by the light. Warren, a wind scorpion researcher in his spare time, has been studying and describing several new solifugids, including a species in a new genus we encountered in Baja California. Kellar Autumn (right), a biologist at Lewis and Clark College in Portland, Oregon, put a wind scorpion through its paces on a treadmill. Kellar hopes to find out how such cold-blooded nocturnal creatures manage their energy as they race about on cold desert nights. Except for the cockroach, no insect or spider is known to run faster. □

ABOVE: *EREMORHAX JOSHUAENSIS*; RIGHT: *GALEODES* SP.

They're so quick as they pursue a gecko or tarantula, they seem to fly like the wind.



SCOOPING UP WIND SCORPIONS For Mark Moffett's best, worst, and quirkiest tales from the field—as well as a wind scorpion photo gallery and a listing of resources and related websites—go online to nationalgeographic.com/magazine/0407.