

**TRILOBITES**

# Swimming Beneath Sand, It's 'the Hardest of All Animals to Find'

Indigenous rangers in Australia's Western Desert got a rare close-up with the northern marsupial mole, which is tiny, light-colored and blind, and almost never comes to the surface.

**By Anthony Ham**

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If you saw a northern marsupial mole, you might be surprised. Known to the First Nations peoples in the Western Desert of Australia as the kakarratul, it is eyeless and has shaggy golden fur. Just four inches from nose to tail, the animal would fit in the palm of your hand. And unlike the mole species of North America, it is a marsupial.

But you probably wouldn't see one: While the animals are plentiful, sightings remain extremely rare because northern marsupial moles live in tunnels beneath sand dunes, navigating them with a swimming-like motion using flipper-like front feet.

"This is the hardest of all the animals to find," said Denzel Hunter, an Indigenous ranger who works to survey and conserve wildlife in the lands of the Nyangumarta people. "Every time we go out looking for

northern marsupial moles, we find evidence that they're there. But I've never seen one.”

Earlier this month, Kanyirninpa Jukurrpa Martu rangers found a kakarratul in the Great Sandy Desert, nearly 1,000 miles northeast of Perth. Their photographs of the creature, which has been spotted only a handful of times in the past decade, expand scientific knowledge of the species as well as of the wider desert regions that make up close to one-third of Australia's land mass.

The find also highlights the value of the 60 desert ranger groups that oversee much of Australia's national system of protected areas.

“It's once you start digging into the detail of that country with the people who know it best that you really start to get an appreciation of the place,” said Gareth Catt, who as program manager of the Indigenous Desert Alliance has worked extensively with ranger programs. “It's the Indigenous rangers that have that enduring connection and are best placed to understand and look after that country.”

Much of what we now know about the northern marsupial mole comes from the rangers.

Lynette Wildridge, also a Nyangumarta ranger, described the species as “beautiful and fluffy.” But during her decade of work, she has seen the animal only once.

“Marsupial moles live in the sand, near the top of the sand dunes,” she said. “They like it there because, underneath, the sand is moist, so it keeps them cool when the surface is hot” — daytime summer temperatures can reach close to 122 degrees Fahrenheit — “and warm when it gets cold at night.

Blind, but with a strong sense of smell, the moles are “really afraid of predators, like dingoes, and birds of prey,” she added. “That's why they live underground.”

“It’s what makes them a great Australian animal,” Mr. Catt said of the northern marsupial moles. “It’s the combination of them looking unusual, having unusual life habits and being poorly known. They really capture the imagination.”

The success of ranger programs, and the prospect of finding more marsupial moles, depends on a multigenerational approach.

“When I was a kid, my grandparents took me out on country and taught us about the plants and animals. They knew country well, and they taught us everything,” said Ms. Wildridge, who introduces young school children to the work of the rangers. “Now it’s our turn to pass that on.”

Each time a northern marsupial mole is found, that task is made easier. After the most recent find, Zan King, executive director of the Kanyirninpa Jukurrpa Martu rangers, described the excitement it caused among the rangers.

“They are all keen to get back home to tell their families and show the photos to the young kids, because we’ve got lots of junior rangers who are looking forward to being rangers when they grow up,” she told the Australian Broadcasting Corporation.

Such discoveries also inspire rangers like Ms. Wildridge to keep their search going.

“We just have to keep digging,” she said.