LIVING ON THE EDGE OF DANGER

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The silver ant survives in heat that would kill other ants.

Ants probably aren't your favorite insects. But you can't help being interested in the story of one spunky kind of ant. It has some special tricks for living in the hot, dry sands of the Sahara, in Africa. This desert is one of the most difficult places on Earth for animals to live.

Most desert animals have learned how to beat the heat by burrowing and living underground during the hottest part of the day. They come out to hunt for food at night and in the early morning. Of course those animals include the predators, which come out at the same time to hunt. So ants and other small insects searching for their food are in danger of becoming food for larger animals, especially the desert lizards.

This Saharan silver ant has climbed onto the stalk of a plant to cool off.

Head for Home

As the morning sun rises, the sands heat up rapidly, and almost every creature scurries back to its burrow.[1] Those that are still hungry and keep looking for food risk the danger of dying of heat shock before they get home.

Most desert ants and other insects head for home when the temperature gets up to about 95 degrees Fahrenheit. They must sneak past the ant lizards and win the race against rising temperature to get home safely. By the time the temperature gets to about 113 degrees, most ants are safe in their underground nests—except for one special kind, the Saharan silver ant.

The silver ant stays out in higher temperatures than any other desert ant does. In fact, it feeds on insects that died in the heat. How does it survive? And why does it do it?

[1] **burrow:** underground home

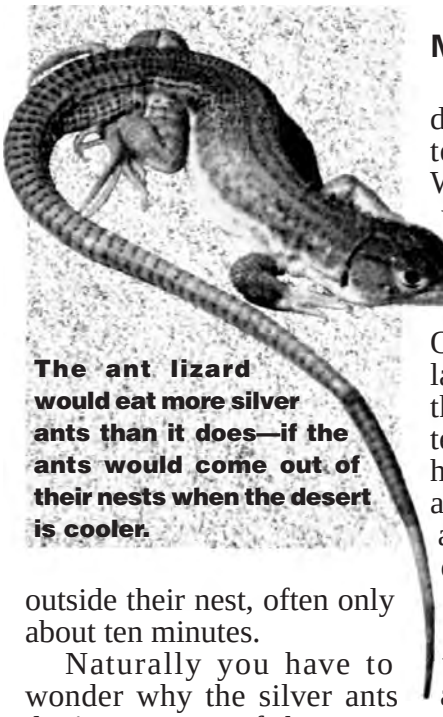
Cool Tricks

One trick of the silver ant is that it can withstand higher temperatures—no one knows how—even up to 128 degrees.

And it knows how to find places where it can rest and cool off. Down on the surface of the sand, where the ant lives, is the hottest place around. Just a few inches up above the sand the air is a lot cooler. So the silver ant spends a part of its hunting time climbing up on plants, like the one in the photograph on the previous page.

Silver ants have another trick that is even more surprising. Their whole colony stays in the nest until the sand temperature outside gets to about 116 degrees. Then a few scouts give a signal, and hundreds of ants come pouring out. This usually happens about noontime, when the temperature is rising rapidly.

Silver ants have a busy time of it, hunting and climbing up on grass stalks to cool off. Then they must hurry home again before the temperature gets to 128 degrees. That gives them just a short hunting time outside their nest, often only about ten minutes.



The ant lizard would eat more silver ants than it does—if the ants would come out of their nests when the desert is cooler.

Naturally you have to wonder why the silver ants don't come out of their nest until the temperature gets so high. Scientists who studied them wondered, too. They found an answer in the behavior of the ant lizard. It is especially fond of silver ants and often has its burrow close to one of their nests. But the ant lizard has to worry about getting overheated, too. By the time the temperature gets to 116 degrees, all the ant lizards are back in their burrows.

Magic Temperature

You can see why 116 degrees becomes a magic temperature for silver ants. When the desert sand gets that warm, one of their enemies, the ant lizard, is asleep in its burrow. Then the ants can safely go out hunting. Of course their safety doesn't last long. Their other enemy, the rising temperature, will tell them they must start for home before the sand gets to a killing temperature. Lots of animals have special times of day or night when they do their hunting and searching for food. But there can't be very many that have as short a hunting time as the Saharan silver ant.

Many animals live very close to danger, especially those that live in the icy cold of the Arctic or in the hot, dry sands of the desert. Even so, the silver ant may hold some kind of record for living on the edge of danger.