



WILDLIFE NOTES

Cicada *Tibicen dialbatus*

You might have found the empty shell of this insect and wondered what it is. The paper-thin shell is split up the back, like the insect unzipped and stepped out. You might have taken it into the house to ask what it is and discovered that it is exactly what it appears to be – the shed skin of an odd-looking insect nymph.

The insect is the cicada. It has a stout body, wide blunt head, and large transparent wings.

Southwesterners are probably just as familiar with its buzz as they are the sight of its shed skin. But it's a unique buzz is unlike that of a cricket that rubs two body parts together. The cicada has somewhat of a kettle drum built into its abdomen.

In the cicada's abdomen are two cavities with membranes stretched across them. The buzzing results from the cicada flexing a muscle that is attached to the membrane – at 200 to 600 times a second. The cavities act as natural amplifiers, helping to strengthen the buzzing sound.

The male cicada buzzes to attract a mate, singing to let the females know his location.

Other males will often join him, forming a cicada choir.

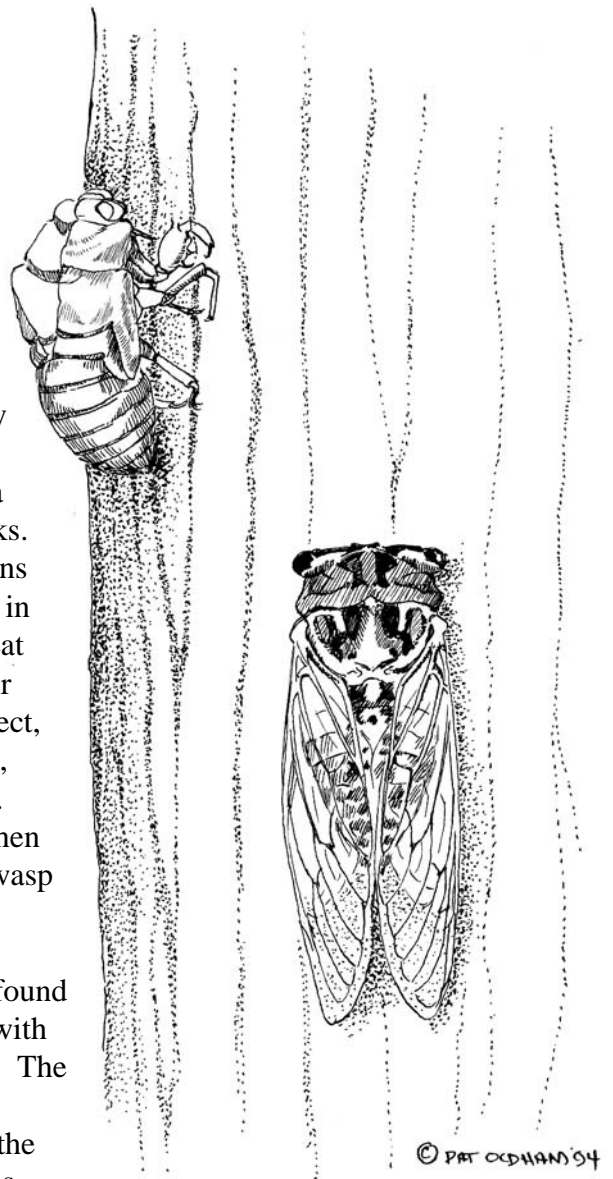
The buzzing of cicadas as they fly may also be a method of scaring off predators, a tactic that seldom works. Birds, cats, and raccoons prey on the insect, and in some cultures people eat them. The cicada killer wasp paralyzes the insect, carries it into a burrow, and lays her eggs on it. The still-alive cicada then becomes food for the wasp nymphs.

More than seven species of cicadas are found in New Mexico, each with its own special "song." The difference in the songs attracts the females to the correct species of males.

Life-styles of the species vary. In and around Albuquerque's bosques, the bosque cicada (*Tibicen dialbatus*) is about two to 2 1/2 inches long. It lives on cottonwoods, birches, and sycamores. Further south, in the desert areas around Carlsbad and Magdalena, the cactus dodger cicada (*Cacama valvata*) is only

about one to 1 1/2 inches long. It lives on yucca, sotol, and ocotillo, and sounds like a buzz saw.

A female cicada, after mating, makes a slit in a small branch and lays her eggs in it. She seeks a dead branch, for if the branch is alive, the tree



would try to kill the eggs as it would a parasite. Too many cicadas laying eggs in a tree can cause damage to fruit and ornamental trees.

The slit where the eggs are laid is only a temporary home for the cicadas. When the nymphs hatch in about two weeks, they drop to the ground and burrow down to the roots of the tree. There, among the roots, they live for several years.

A cicada lives longer than the great majority of other insects, but most of this time is spent as a nymph. It pierces the roots of trees with sharp stylets (a piercing mouthpart that serves as a built-in straw) and drinks the fluid in xylem vessels as it is carried from the roots to the leaves. Xylem fluid is more than 99 percent water, so cicadas must drink it for several years to get the nutrients necessary to mature and build a fat reserve to live for the four to

six weeks they spend as adults.

Emerging nymphs leave their burrows just after sunset and head directly for the trunk of their tree. They climb one or two meters up the trunk of the tree. Once they are satisfied with their position on the tree, they begin to flex. This flexing splits their old skin down the middle of the back, and they slowly crawl out. Once they are most of the way out, they lean back, and their tissue-like wings begin to unfold. This process takes nearly an hour.

When their wings have completely unfolded, they climb the rest of the way out of their old skin and let their wings harden. When the wings are hard enough to fly, the cicada heads into the trees, and the cycle begins anew.

And what you have found is the old skin.

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