

# PEREGRINATIONS

## AERIAL ANT-ICS

Among the dwellers of the tropical forest are various species of canopy ants that live in colonies high in the trees. Although they have sticky feet that help them stay on the branches, they sometimes are pushed, fall or even jump when endangered.

Plunging from 30 meters above ground would seem a mighty risky business for a creature without wings, but scientists led by Stephen P. Yanoviak of the University of Texas at Galveston and the University of Florida in Vero Beach have found the falls to be less than catastrophic — perhaps even “anty-climactic” — because the creatures have evolved a means of controlling their aerial descent.

The team nudged *Cephalotes atratus* L. ants — marked with paint for tracking — from their home boughs and used a Canon ZR10 digital video camera to record them as they fell. About 85 percent of them turned a rapid free fall into a J-shaped glide that returned them to the safety of their home tree trunk before they ever hit the ground. Many clambered back up the tree and rejoined

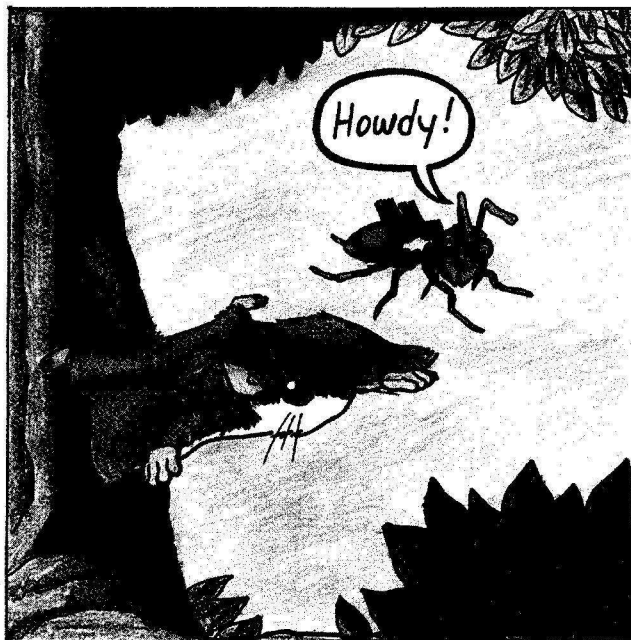


Illustration by John L. Trotti

their colony in as little as 10 minutes.

Researcher Michael Kaspari of the University of Oklahoma in Norman and the Smithsonian Tropical Research Institute in Balboa, Panama, said, “The fact that ants fling themselves off voluntarily leaves me breathless. Those of us who saw that behavior before used to think it was just weird. Now we know that these ants are laughing all the way to the trunk.”

Kaspari added that the research is important because “it suggests a whole set of adaptations to risk that we haven’t thought much about.” He

said that the team is looking at other wingless creatures in the canopy and finding that a number of them have similar safety mechanisms.

This work, he said, could have interesting implications: “Once we find out the nuts and bolts of how the ants pull it off, one can imagine the technology being used in falling ‘micro-bots’ — to what end, who knows?” □