

THE AMERICAN BIOLOGY TEACHER



About Our Cover

This cover features the wasp *Encyrtus fuscus*, which is a little under a millimeter and a half long. Though small, this wasp is mighty, in that it helps keep cities green. *E. fuscus* is a parasitoid, which means it lays its eggs inside other insects, and when its larvae hatch, they eat the insect from the inside out. By killing insects that eat plants, parasitoids protect plants that people care about all over the world, from cities to greenhouses and farmlands.

Very little is known about *Encyrtus fuscus*. Like most insects, its small size makes understanding where it goes and what it eats difficult. However, scientists do know that *E. fuscus* and its relatives play a strong role in controlling pest “scale insects.” Scale insects are a group of pests that damage trees that line our streets and clean the air in urban areas, where most people in the world live. The wasp in this photo was reared from a scale insect and then quickly photographed as it emerged as an adult. No matter where you live in the world, parasitoids are emerging from other insects and spiders all around you, though they are often too small to notice.

This photo was taken in the NCSU Department of Entomology by Emily Meineke, Ph.D., who is a postdoctoral fellow at the Harvard University Herbaria, and Andrew Ernst, who is a lab technician at BASF. The camera was an Olympus DP72. We used an Olympus CX41 trinocular scope and lenses with a long working distance so we could use brightfield light as opposed to transmitted light.

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