

## *Drapetis*: A Natural Enemy

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If you have been sweeping cotton fields, you've likely found many natural enemies. Look for *Drapetis*, a tiny (~2mm) predaceous fly that is present in many area fields. In surveys, *Drapetis* is one of the most abundant whitefly predators in AZ cotton. They are also found in alfalfa during the spring and early summer in large numbers. *Drapetis* can be distinguished by its cone shaped mouthparts, shiny black thorax, banded abdomen, and swollen bases of the hair-like antennae. These characteristics should help separate it from the occasional leafminer fly (Agromyzid) that might also be present and are about the same size, but have obvious yellow markings. *Drapetis* flies are recognizable in sweep nets by their jittery movement or "dance" as they walk — in fact, the family they are from, Empididae, are known as "dance flies". They also run rapidly in straight lines when startled. As adults, they feed on adult whiteflies. In the field, they actively pursue whitefly adults and may catch whiteflies on the wing. It uses its cone-shaped mouthparts to impale whitefly adults and sucks out the contents. They likely survive on other prey items prior to the arrival of whiteflies in the field, but can be very effective predators of adults, devouring 20 or more whiteflies in a matter of hours. They are unaffected by the selective insecticides (Stage I) recommended for whitefly IPM.

