Beneficial Insects II

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### Insects

#### Lady Beetles
**Family Coccinellidae**

**Adult:** Dome-shaped insect with a convex top and flattened bottom, short legs, and antennae; common wing cover patterns vary in color from reddish-orange with or without black spots to solid black or black with red spots, about \( \frac{1}{8} \) to \( \frac{3}{8} \) inch long.

**Larva:** Elongate, somewhat flattened insect up to \( \frac{3}{8} \) inch long, “alligator-like” in appearance, body covered with spines; common color pattern variations are black to dark gray with bright red, yellow, orange, or blue markings.

**Egg:** Oval-shaped, yellow to orange, and about \( \frac{1}{2} \) inch long. Laid upright either singly or in groups, depending on species.

**Pupa:** Immobile, elongate, dome-shaped, and varying in color from dark- to yellow-orange; about \( \frac{3}{16} \) to \( \frac{1}{2} \) inch long. The remains of the last larval skin may be present at the posterior end. Generalist predators. Primarily feed on aphids, scale insects, caterpillars, spider mites, mealybugs, and insect eggs. Additional species feed on plants, nectar or pollen, and fungi.

#### Ground Beetles
**Family Carabidae**

**Adult:** Flattened, elongate body up to \( \frac{3}{4} \) inches long with hard wing covers with prominent longitudinal ridges, threadlike antennae, a forward projecting head with large mandibles, and long legs. Color varies from brown to black and a few are metallic blue or green.

**Larva:** Slightly flattened and elongate, “worm-like” in appearance, possessing large forward projecting mandibles; body tapers slightly toward the abdomen, ending in two bristly projections; varies in color from cream to brown; up to \( \frac{1}{2} \) inches long. Mainly generalist ground-dwelling predators. Primarily feed on small insects, spiders, and various other arthropods. Some species are seed feeders.

#### Flower Flies
**Family Syrphidae**

**Adult:** Small to medium-sized, about \( \frac{1}{4} \) to \( \frac{3}{4} \) inch long with black and yellow alternating bands on the abdomen, a single pair of wings, large eyes, and small antennae.

**Larva:** Legless maggots about \( \frac{1}{32} \) to \( \frac{1}{2} \) inch long, often possessing a yellow longitudinal stripe on the back gradually tapering toward the head; varies in color from creamy white to greenish. Larvae are generalist predators. Primarily feed on aphids, scale insects, mealybugs, spider mites, and thrips. Adults feed on pollen and nectar.

#### Ichneumonid Wasp
**Eriborus terebrans**

**Adult:** Medium-sized black body about \( \frac{3}{8} \) inch long with long antennae, two pairs of wings, and reddish-brown legs. The female has a curved ovipositor extending beyond the abdomen. Ichneumonid larvae are parasitoids of caterpillars, beetle larvae, and other insects. *E. terebrans* is an introduced, species-specific parasitoid of European corn borer larvae.

#### Braconid Wasp
**Macrocentrus grandii**

**Adult:** Medium-sized with a black head, two pairs of wings, and a yellowish brown to blackish brown body; about \( \frac{3}{16} \) inch long. The female’s ovipositor is longer than the rest of the body. Braconid larvae are parasitoids of caterpillars, beetle larvae, aphids, and other insects. *M. grandii* is an introduced, species-specific parasitoid of European corn borer larvae.

#### Phytoseid Mite
**Neoseiulus fallacis**

**Adult:** Pear-shaped mite with a uniformly pale brown or straw-colored body, characterized by the absence of dark pigmentation; about \( \frac{1}{64} \) inch long. Adults and nymphs are predators of the two-spotted spider mite and the Banks grass mite.

#### Tachinid Fly
**Lydella thompsoni**

**Adult:** Medium-sized blackish-gray body about \( \frac{3}{8} \) inch long, resembles a large, bristly house fly, single pair of wings, large eyes. Tachinid larvae are internal parasitoids of caterpillars, beetle larvae, grasshoppers, and other insects. *L. thompsoni* is an introduced, species-specific parasitoid of European corn borer larvae.

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