



POCKET GARDENER

A close-up photograph of a bright green praying mantis perched on a piece of dark, textured bark. The mantis is shown in profile, facing left, with its mouthparts open as it consumes a small, brownish insect. The background is a soft, out-of-focus grey.

Bug Eating Bugs

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Ladybugs

Beneficial



FIG 1. ADULT
CONVERGENT LADY BEETLE



FIG 2. LARVA



FIG 3. ADULT
TWICE STABBED LADY BEETLE



FIG 4. LARVAE



FIG 5. EGGS

Ladybugs

- There are many species of ladybugs (aka lady beetles).
- Both larvae and adults eat aphids, scale, and mealybugs.
- The larvae look very different from the adults and may be mistaken for pests.
- Adults also eat nectar and pollen.
- To encourage their presence, avoid using pesticides and make sure there are flowering plants nearby the garden.

Solitary Wasps

Beneficial

FIG 1. ADULT (SCOLIID WASP)



FIG 2. ADULT (SPIDER WASP)



FIG 3. ADULT
(ICHNEUMON WASP)

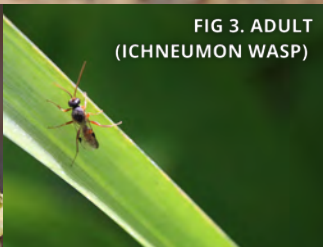


FIG 4. OVIPOSITOR

Solitary Wasps

- Many types of wasps are solitary.
- Each female makes her own nest and does not defend her nest.
- This is unlike yellowjackets which aggressively protect their ground nests and have more than one individual going in and out of the nest opening
- Adults prey on insects/spiders and eat pollen and nectar.
- They are only active for a few weeks of the year.
- Some have long ovipositors, which they use to lay eggs.

Lacewings

Beneficial



FIG 1. ADULT (GREEN)



FIG 2. ADULT (BROWN)



FIG 3. EGGS



FIG 4. LARVA



FIG 5. LARVA EATING APHIDS

Lacewings

- There are two families of lacewings: green lacewings and brown lacewings.
- Larvae are sometime nicknamed "junk bugs" because they carry debris on their back as camouflage.
- Both larvae and adults are beneficial predators.
- A single larva can consume 300-400 aphids in a two-week period.
- Larvae eat aphids, caterpillars, and other soft-bodied insects.
- Green lacewings lay small "stalked eggs" close to potential prey.

Tarantula Hawk Wasp

Beneficial



FIG 1. ADULT



FIG 2. ADULT



FIG 3. ADULT WITH TARANTULA

Tarantula Hawk Wasp

- This large (2-inch) wasp is the state insect of New Mexico.
- The Tarantula Hawk Wasp is in the family of spider wasps, which specialize in hunting spiders.
- This is a type of solitary wasp and a type of parasitoid wasp.
- Adults feed on nectar and pollen and are excellent pollinators, especially for milkweed.
- Females will hunt tarantulas, paralyze them, and bring them back to their nest as food for their young.
- Observe at a distance — these are capable of stinging.

Robber Flies

Beneficial



FIG 1. ADULT



FIG 2. BUMBLEBEE MIMIC



FIG 3. ADULT

Robber Flies

- There are many types of robber flies.
- Robber flies are opportunistic predators that will generally eat anything they can catch.
- Common prey include wasps, bees, dragonflies, grasshoppers, other flies, and some spiders.
- Their larvae are also predatory and feed on eggs, larvae, and other soft-bodied insects.
- Adults have a large beak and irritating toxins in their saliva which paralyze prey.

Assassin Bugs

Beneficial



FIG 1. ADULT



FIG 2. ADULT



FIG 3. NYMPH

Assassin Bugs

- Assassin bugs are general predators that will eat both pest and beneficial insects.
- Assassin bugs are one of the largest families of true bugs, and includes the blood-sucking kissing bugs.
- The beneficial members of this family are quite diverse in size, color, and shape.
- Many types of assassin bugs can be mistaken for kissing bugs, but kissing bugs are not normally found in crops or gardens.

Parasitoid Wasps

Beneficial

FIG 1. ICHNEUMON WASP



FIG 2. BRACONID WASP

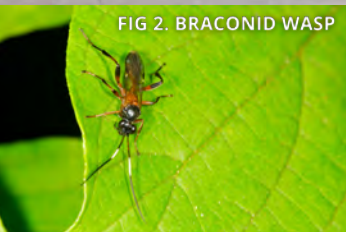


FIG 3. WASP COCOONS
ON HORNWORM



FIG 5. OVIPOSITOR



FIG 6. ICHNEUMON WASP



Parasitoid Wasps

- Many different wasps are parasitoids.
- Two agriculturally beneficial families of parasitoid wasps are Ichneumonidae and Braconidae.
- The difference between "parasite" and "parasitoid" is parasitoids kill their hosts.
- Adults lay their eggs on or inside the host insect. Larvae feed on or in the host and eventually kill them.
- Adults feed on nectar and pollen.
- Many are so small that you might not notice they are present.
- Some have long ovipositors, which they use to lay eggs.
- To encourage their presence avoid pesticides and plant native flowers nearby.



Cicada Killer Wasp

Beneficial



FIG 1. ADULT WITH CICADA



FIG 2. ADULT



FIG 3. ADULT NECTARING

Cicada Killer Wasp

- The cicada killer wasp is a large (~3-inch) wasp.
- Adults are active for a few months during mid-late summer.
- This is a type of solitary wasp and a type of parasitoid wasp.
- Adults feed on tree sap and flower nectar.
- This wasp is a parasitoid of cicadas - which they paralyze and use to feed their young.
- Each female builds a solitary nest in the ground that can result in large mounds of soil.
- Observe at a distance — these are capable of stinging.

Key Concepts and Vocabulary

Integrated Pest Management (IPM) is an approach to pest management that uses a variety of management strategies to suppress pests and keep their populations below damaging levels. The 4 practices of IPM are:

1. **Prevention** – Reduce or eliminate pest establishment before they become a problem.
2. **Monitoring** – Regularly scouting for pests or signs of damage or disease on your plants.
3. **Identification** – Correctly identify pests through visual inspection, trapping, or consulting a specialist.
4. **Management** – Use the appropriate cultural, mechanical, biological, and chemical measures to control pest populations to an acceptable level.

Larva: An intermediate stage of an insect. Larva are often wormlike and look very different than the adult.

Nymph: An intermediate stage of an insect. Nymphs often resemble smaller versions of the adult.

Pest: A living organism (such as insects, animals, fungi, bacteria, etc.) which can have a negative impact in your garden.

POCKET GARDENER

Bug Eating Bugs Garden Insect Identification Cards

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Summary

These cards are meant to help readers identify and manage common insects in New Mexico home gardens. The suggestions provided are not comprehensive nor intended for commercial purposes. Please consult additional resources for further information.

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Learn more at : ipm.nmsu.edu



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