



THE UNIVERSITY OF ARIZONA

Cooperative Extension

BACKYARD BUGS of ARIZONA

Text & Photos by Greg Chism, Ben Beal, Carl Olson, Kathleen Walker, Alex Wild and Creative Commons.

Use the guide to **insect orders** to figure out which order your insect belongs to, then see if you can find it on the list below. There are many more insect species in Arizona than could be included here.

ORDER: ODONATA – Dragonfly, Damselfly

Two pairs of wings that do not fold over the back, very large eyes



Common Name: Flame Skimmer

Scientific Name: *Libellula saturata*

(Family: Libellulidae)

When to find them: April - November

How big are they? 2 – 2 1/2 inches

Fun Facts: Dragonflies are very fast predators; they can capture an insect in mid-flight. They then carry their prey to a perch to eat.



Can it be picked up? Yes, but you've got to catch them first and that isn't easy.

Common Name: Blue Dasher

Courtesy of Carl Olson

Scientific Name: *Pachydiplax longipennis* (Family: Libellulidae)

When to find them: May – September

How big are they? 1 1/2 – 2 inches

Fun Facts: Dragonflies start life in water as swimming nymphs before turning into recognizable flying adults. The fierce predacious nymph has jaws that detach to scoop up prey such as mosquito larva and even small fish!

Can it be picked up? Yes, but see above!



Common Name: Familiar Bluet Damselfly

Scientific Name: *Enallagma civile* (Family: Coenagrionidae)

When to find them: March – October

How big are they? 1 – 1 1/2 inches

Fun Facts: Damselflies are similar to dragonflies but are smaller and fold their wings back over their body. Males and females of species usually have the same markings but males are more vibrantly colored than the females.

Can it be picked up? Yes, and they're easier to catch in a net than a

dragonfly.

ORDER: BLATTODEA - Cockroach & Termite

Head is under the thorax, 2 pairs of "leathery" wings



Common Name: Desert Encruster Termites

Scientific Name: *Gnathamitermes perplexus*
(Family: Termitidae)

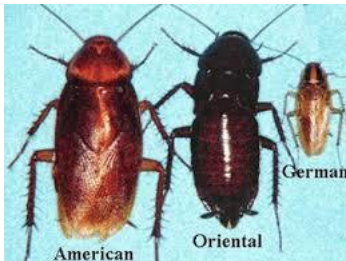
Where to find them: Sandy soil in the fall



How big are they: 1/4 – 1/2 an inch

Fun facts! Termites get a bad rap but these social insects are necessary to turn decaying things like wood into new soil. You won't see termites out in the sun unprotected but you can find their tube-like nests made of mud around the bottoms of cactus or walls.

Can it be picked up? Yes, but be careful of soldiers with large jaws!



Common Name: American, Oriental, and German Cockroaches

Scientific Name: *Periplaneta americana*, *Blatta orientalis*, *Blattella germanica* (Family: Blattidae)

Where to find them: Everywhere

How big are they? American and Oriental cockroaches: 1 – 2 inches, German cockroach: 1/2 - 1 inch

Fun facts! Cockroaches are NOT dirty and carefully clean themselves (and each other). Cockroaches eat the bits of food or dead insects found in and outside of your home, but their presence doesn't mean your house is a mess!

Can it be picked up? Yes, but you probably won't

ORDER: MANTODEA– Praying Mantis

Grabbing front legs, 2-pairs of pleated wings over the back



Common Name: Arizona Mantis

Scientific Name: *Stagmomantis limbata* (Family: Mantidae)

When to find them: July – October

How big are they: Up to 3 inches

Fun facts! Mantids are ambush predators meaning they stand very still or sometimes sway slightly as a leaf in the breeze while they wait for an unsuspecting victim to come within reach.

Females may eat their mate's heads, but he is giving his life to feed his children.

Can it be picked up? Yes, even though they are predators they are very docile.

ORDER: PHASMATODEA– Stick Insect

Body is stick-like, 2 pairs of wings, females are wingless



Common Name: Creosote
Walking stick

Scientific Name: *Diapheromera arizonensis*
(Family: Diapheromeridae)

When to find them: June – November

How big are they: Up to 3 inches

Fun facts! You don't often spot these unless you stop and watch creosote bushes carefully. They camouflage as a stick and also sway like a twig in a breeze.

Can it be picked up? They can't harm you but it is best to coax them onto your hand rather than pick them up since they are so delicate.

ORDER: ORTHOPTERA – Grasshoppers and Crickets

2 pairs of straight wings, jumping back legs



Common Name: Horse Lubber

Scientific Name: *Taeniopoda eques* (Family: Acrididae)

When to find them: Late summer

How big are they: 2 – 3 inches

Fun facts! Horse lubbers have bright colors that advertise to predators that they taste bad. If you've seen them mid-flight you might notice their wings are bright pink.

Can it be picked up? Yes, if they don't jump away.



Common Name: Pallid-winged Grasshopper

Scientific Name: *Trimerotropis pallidipennis* (Family: Acrididae)

When to find them: summer

How big are they: 1 – 2 inches

Fun facts! You can find the pallid-winged grasshopper anywhere during the summer in Tucson. They are easiest to see when they jump.

Can it be picked up? Yes, if you sneak up on them.



Common Name: Gray Bird Locust

Scientific Name: *Schistocerca nitens* (Family: Acrididae)

When to find them: June – January

How big are they: 1 1/2 – 2 1/2 inches

Fun facts! These grasshoppers can get big. If you see something flying clumsily through the sky, it might be

one of these locusts. Don't worry, there probably won't be a swarm!

Can it be picked up? Yes, their strong hind legs are a bit pokey but harmless



Common Name: Rainbow Grasshopper

Scientific Name: *Dactylotum bicolor* (Family: Acrididae)

When to find them: April – November

How big are they: 1 – 1 1/2 inches

Fun facts! Despite their bright colors these guys are hard to spot because they do not jump or fly away when you get close to them. Their colors are a warning of their terrible taste to anybody who might try to eat them.

Can it be picked up? Absolutely!



Common Name: House Cricket

Scientific Name: *Acheta domestica*

(Family: Gryllidae)

When to find them: May – December

How big are they: 0.5 – 1 inch

Fun facts! These crickets are by far the most common cricket you will find. As the name suggests, you may see these crickets outside (on inside) of your house. At night, these crickets communicate by rubbing their hind legs against their abdomen, producing the "chirps" that we hear when we listen for them.

Can it be picked up? Yes!



Common Name: Greater Angle-winged Katydid

Scientific Name: *Microcentrum rhombifolium* (Family: Tettigoniidae)

When to find them: May – December

How big are they: 2 – 2 1/2 inches

Fun facts! These wonderful insects look like leaves and easy to miss. Like crickets, katydids communicate through songs in the night. They hear each other's songs through ear-like openings on their front legs!

Can it be picked up? Yes!



Common Name: Jerusalem Cricket

Scientific Name: *Stenopelmatus spp.* (Family: Stenopelmatoidea)

When to find them: March – October

How big are they: 1 – 2 1/2 inches

Fun facts! They can be a startling find when turning over rocks or digging in leaf litter. Like true crickets they too make a song, but they thump their abdomen on the ground to create rhythmic vibrations that are felt rather than heard.

Can it be picked up? Maybe but they can bite so be cautious.

ORDER:HEMIPTERA – True Bugs

Have sucking mouth parts, 2 pairs of wings that form an 'X' or can be wingless



Common Name: Cochineal Scale

Scientific Name: *Dactylopius coccus*
(Family: Dactylopiidae)

Where to find them: Year-round on prickly pears

How big are they: less than 1/4 of an inch

Fun facts! Cochineal live inside the protective white waxy stuff on prickly pears and after they've dug in they will never move again in their whole life. The scale's body is bright red and is traditionally used to dye fabric and food like meat and sweets!

Can it be picked up? Yes (watch for cactus spines).



Common Name: Apache Cicada

Scientific Name: *Diceroprocta apache* (Family: Cicadidae)

When to find them: Summertime

How big are they: 1 – 2 inches

Fun Facts! When you hear cicadas singing in Tucson you know it is a swelteringly hot summer day. Cicadas can remain active through the hottest part of the day because they can sweat!

Can it be picked up? Yes, although they can be hard to find or are far up in trees.



Common Name: Giant Agave Bug

Scientific Name: *Acanthocephala thomasi* (Family: Coreidae)

When to find them: April – November

How big are they: 1 – 1 1/2 inches

Fun Facts: They are known as the Giant Agave Bug because they are often found feeding on Agave and other succulents. They do not take large bites but instead they use their piercing, sucking mouth part to suck out the tasty juices from the inside plants.

Can it be picked up? Yes, and they'll probably emit a foul smell but just try to enjoy it.



Common Name: Giant Mesquite Bug

Scientific Name: *Thasus neocalifornicus* (Family: Coreidae)

Where to find them: Mesquite trees in the summer

How big are they: 1 – 2 inches

Fun facts! One of the Southwest's most well-known insects, giant mesquite bugs can be found on mesquite trees. Young mesquite bugs are bright red to tell predators they are not good to eat. They enjoy eating young branches of mesquite trees and often congregate in groups.

Can it be picked up? Yes



Common Name: Opuntia Bug

Scientific Name: *Chelinidea vittiger* (Family: Coreidae)

When to find them: February – September

How big are they: 1/2 an inch

Fun facts! The Opuntia Bug feeds on the juices in the pads of prickly pear. Greenish-yellow splotches on pads mean the Opuntia have been there.

Can it be picked up? Yes.



Common Name: Kissing Bug

Scientific Name: *Triatoma rubida* (Family: Reduviidae)

When to find them: July-August

How big are they: 3/4 of an inch

Fun Facts: *Triatoma rubida* are also referred to as cone-nosed bugs and Hualupai Tigers. These insects feed on blood and are referred to as kissing bugs as they bite near lips. They can carry the parasite responsible for Chaga's disease, but not in Arizona.

Can it be picked up? No, they'll give you one of their famous "kisses".



Common Name: Bee Killer

Scientific Name: *Apiomerus flaviventris* (Family: Reduviidae)

When to find them: April - September

How big are they: 1/2 – 3/4 of an inch

Fun Facts! The bee killer is a fascinating hunter; they collect sticky plant resins on their legs to help them catch their bee prey. Females use similar resins to help protect her eggs from predators such as ants.

Can it be picked up? Yes. Don't let the name scare you but you should still treat it with caution and respect.



Common Name: Milkweed Bug

Scientific Name: *Lygaeus kalmii* (Family: Lygaeidae)

Where to find them: Spring – Fall, basically everywhere!

How big are they: 3/8 of an inch

Fun facts! These very abundant insects can be seen most anywhere there are plants. Their numbers increase even more when plants are getting plenty of water. They feed on the seeds of milkweed and other plants thus keeping seed production down which can either be good or bad depending on your perspective.

Can it be picked up? Yes!



Common Name: Green Stink Bug

Scientific Name: *Chinavia hilaris* (Family: Pentastomidae)

Where to find them: Summer-Fall, on plants

How big are they: 2/3 of an inch

Fun facts! As the name suggests, these insects do stink! They feed on plants with their piercing mouthparts, and secrete a nasty chemical when disturbed, which helps to avoid being eaten. These bugs can be a major pest and are actually controlled by parasitoid wasps, who's larva eat their eggs!

Can it be picked up? Yes, but they do really stink...



Common Name: Spittlebug

Scientific Name: *Clastoptera arizonana* (Family: Clastopteridea)

When to find them: Spring - Fall

How big are they: about 1/4 of an inch

Fun Facts! Spittlebugs tap into plant sap by piercing the stem of a host plant, they use the sap to create a frothy protective refuge from temperature extremes and predators.

Can it be picked up? Yes



Common Name: Oleander Aphid

Scientific Name: *Aphis nerii* (Family: Aphididae)

Where to find them: Spring – Fall, on Oleanders and Milkweed plants

How big are they: 1/8 of an inch

Fun Facts! These interesting insects will congregate in certain areas of plants. Despite the large groups that form they can still be hard to see if you don't take a long look at plants that you pass. They have structures on the rear of their abdomen that look like tiny horns on their backside. These are called cornicles that make fluids that might repel predators.

Can it be picked up? They are very tiny, so use a paint brush.



Common Name: Bed Bug

Scientific Name: *Cimex lectularius* (Family: Cimicidae)

Where to find them: Technically all year, your bedding, your floors, you walls...

How big are they: 1/8 – 1/4 of an inch

Fun Facts! An infamous pest, bed bugs reside in homes, waiting to feed on us at night. Each bed bug can lay over 500 eggs, which they start doing after only three weeks! Unfortunately, extensive care is needed to be rid of them, as they can hide in the smallest nooks and cracks.

Can it be picked up? Yes but you might not want to...

ORDER: NEUROPTERA – Antlions and Lacewings

2 pairs of net-like wings with many veins



Courtesy
of Carl Olson

Common Name: Antlions

Scientific Name: *Scotoleon sp.* (Family: Myrmeleontidae)

Where to find them: Mid-summer

How big are they: up to 3 inches as an adult

Fun Facts! If you've ever seen cone shaped holes in the sand, an antlion larva might be living inside. If you dangle an ant over the edge you might get to see the larva jump out and attack! You wouldn't think that such a unique and aggressive larva would become such a delicate adult insect.

Can it be picked up? No; they can bite (both young and adult)!



Courtesy of Carl Olson

Common Name: Green Lacewing

Scientific Name: *Chrysperla carnea* (Family: Chrysopidae)

Where to find them: Late Spring-Summer: At night, near lights.

How big are they: Up to 1 inch

Fun facts! Lacewing larva are used in gardens to fight off aphids, a common garden pest. As an adult, you can find them around your porch lights at night. They are called lacewings because the lace-like pattern made by the numerous veins in their wings.

Can it be picked up? Yes, they are friendly and harmless

ORDER: COLEOPTERA - Beetles

Have hard shell and 2 pairs of wings: front wings are hardened & protect back wings



Common Name: Palo Verde Beetle

Scientific Name: *Derobrachus hovorei* (Family: Cerambycidae)

When to find them: Monsoon season after sunset.

How big are they: Up to 4 inches!

Fun facts! The males use their giant jaws to battle, but can't eat with them. These beetles only live as adults for one month because they don't eat and live as larvae for as many as three years underground in the roots of Palo Verde trees.

Can it be picked up? Yes, but they can pinch you!



Common Name: Twig Girdlers

Scientific Name: *Oncideres rhodosticta* (Family: Cerambycidae)

When to find them: Monsoon season

How big are they: 1 – 2 inches

Fun facts! Mother beetles will chew a ring in a mesquite branch that may take as many as two days to complete. She will then lay her eggs in the ring and the larvae will live in the tree until they pupate into adults. This "girdling" kills the twig but protects the

eggs from getting stuck in tree sap.

Can it be picked up? Yes and they squeak!



Common Name: Cactus Longhorn Beetle

Scientific Name: *Moneilema gigas* (Family: Cerambycidae)

When to find them: All year round

How big are they: About 1 inch

Fun Facts! These beetles feed on cactuses and can even be found on extremely prickly cacti such as chollas and prickly pears. These beetle species are native to the Sonoran Desert. This cute beetle is easy to catch because they do not have wings even as adults.

Can it be picked up? Yes, but don't get pricked on a cactus!



Common Name: Fig Beetle

Scientific Name: *Cotinus mutabilis* (Family: Scarabaeidae)

When to find them: Summertime

How big are they: About 1 inch

Fun facts! Fig beetles enjoy eating mesquite tree sap and damaged fruits. They often collect in large, shiny groups.

Can it be picked up? Yes, although they make noise when you scare them.



Common Name: Dung Beetle

Scientific Name: *Canthon imitator* (Family: Scarabaeidae)

Where to find them: July – October

Courtesy of Carl Olson

How big are they: 1 inch

Fun facts! Dung beetles seek out fresh dung to feed to their babies. They lay eggs inside the dung ball so when the larvae hatch they can then eat their way out and get a snack.

Can it be picked up? Yes but avoid the poo.



Common Name: Stink Beetle

Scientific Name: *Eleodes obscurus* (Family: Tenebrionidae)

Where to find them: Around town

How big are they: 1 – 2 inches

Fun facts! Stink beetles are a type of darkling beetle, and the larvae are mealworms. If you bother the beetle, it may stand on its head and release a smelly fluid to defend themselves.

Can it be picked up? Yes, and you may get to smell them too!



Common Name: Iron-cross Blister Beetle

Scientific Name: *Tegrodera aloga* (Family: Meloidae)

When to find them: Mid-late Spring

How big are they: 1 inch

Fun Facts! This beetle is brightly colored, which serves as a warning to predators that it is dangerous. They get the name blister beetle for good reason. They can squeeze a liquid from their leg joints that can cause blisters on anyone who gets the stuff on their skin.

Can it be picked up? No, because of their chemical defenses



Common Name: Convergent Lady beetle

Scientific Name: *Hippodamia convergens* (Family: Coccinellidae)

When to find them: March - November

How big are they? 1/4 of an inch

Fun Facts: Lady beetles are voracious predators as larva and as adults. They feed on soft bodied pests such as aphids and scale insects. Lady beetles can also emit a foul-tasting substance that keeps other predators at bay.

Can it be picked up? Yes!



Common Name: Predatory Ground Beetle

Scientific Name: *Calosoma peregrinator* (Family: Carabidae)

When to find them: February – October

How big are they: 1 – 1 1/2 inches

Fun Facts! These guys are also called Caterpillar Killers. They feed on plump caterpillars. They also have a defensive gland at the back of the abdomen for secreting a stinky compound to ward off their own predators.

Can it be picked up? Yes but be cautious as they could give you a pinch.

ORDER: DIPTERA - Flies

Only 1 pair of wings. Excellent fliers. Juveniles are maggots.



Common Name: House Fly

Scientific Name: Family: Muscidae

Where to find them: Basically all seasons but “winter”, in or outside of your house.

How big are they: 1/2 of an inch

Fun facts! House flies like a lot of the foods we like, but just the juices. Their mouths are like sponges that suck up juices on our food.

Can it be picked up? Yes, but you’ll have to catch them first!

Common Name: Horse Fly

Scientific Name: Family: Tabanidae

Where to find them: Near animals/ you!

How big are they: 1 – 1 1/2 inches

Fun facts! Species of these flies are notorious for their painful bite. They are blood feeders that use their scissor-like mandibles to cut open skin to feed. Their huge eyes help them find their next target.

Can it be picked up? No, they bite!



Common Name: Bee Fly

Scientific Name: Family: Bombyliidae

Where to find them: Near flowers

How big are they: 1 – 1 1/2 inches

Fun facts! There are many species that can be found and can look very different. These fuzzy flies look a lot like bees, on purpose. Although these flies don’t have stingers, they mimic bees to confuse predators. Like

bees, these insects are also important pollinators for local Southwest plants.

Can it be picked up? Yes.



Common Name: Hover Fly

Scientific Name: Family: Syrphidae

Where to find them: Near flowers

How big are they: 1/2 – 3/4 of an inch

Fun facts! These flies also look like bees. Like the bee fly, hover flies pollinate local Southwest plants. Their name

comes from their flying behavior where they can be seen “hovering” and darting from one place to another in mid-air.

Can it be picked up? Yes but they are very hard to catch!



Common Name: Robber Fly

Scientific Name: Family: Asilidae

Where to find them: Perched on plants in late-Spring and Summer months

How big are they: 1/2 to 1 inch

Fun facts! Robber flies can be recognized by their long thin bodies and large eyes. Robber flies are predators

that will attack the best-defended insects like bees and wasps. They inject toxins when they bite their prey to dissolve the insides of their victim so that they can suck them out.

Can it be picked up? No, they can give a painful piercing bite.



Common Name: Crane Fly

Scientific Name: *Tipula spp.* (Family: Tipulidae)

When to find them: After rains in the spring

How big are they: 1 – 2 inches

Fun Facts! Crane flies are often mistaken as mosquitos and contrary to popular belief, they don't eat mosquitoes. They have very long legs, which are twice as long as their body. Adult crane flies do not eat; their main purpose is to find a mate and

reproduce.

Can it be picked up? Yes but they are very fragile.



Common Name: Tachinid Fly

Scientific Name: Family: Tachinidae

Where to find them: Summertime in cities

How big are they: 1/2 of an inch

Fun facts! Tachinid flies are often big, red, and hairy. They are important pollinators as adult flies but as larva they eat other insects. Female tachinids lay their eggs inside of other insects and the young maggots eat their way out before they pupate into adults.

Can it be picked up? Yes, but they are very hard to catch



Common Name: Fruit/ Vinegar Fly

Scientific Name: Family: Tachinidae

Where to find them: Throughout most of the year, in and outside of your home.

How big are they: Very small

Fun facts! Fruit flies are one of the most well studied animals in science! We investigate genetic disease, immunity, neuroscience, and much more (!) with these little insects.

Can it be picked up? Yes, but they are very hard to catch



Common Name: Culex Mosquito

Scientific Name: *Culex spp.* Family: Culicidae

Where to find them: Spring – fall at night.

How big are they: about ¼ inch long

Fun facts! Only the female mosquito will bite you, and she uses the blood to develop eggs. The children (larvae) live in water. In Arizona, the Culex mosquitoes can carry West Nile Virus. This mosquito usually bites at night, so keep your doors closed and use window screens!

Can it be picked up? Yes but maybe you should just swat it...

Common Name: Yellowfever Mosquito

Scientific Name: *Aedes aegypti*. Family: Culicidae

Where to find them: Summer and fall during the day

How big are they: about ¼ inch long

Fun facts! These black and white mosquitoes bite during the day and usually bite ankles and feet. They lay eggs in small containers of water, like the saucers under houseplants. They do not carry diseases in Arizona, but in nearby Mexico they can transmit dengue and Zika viruses.



Can it be picked up? Yes but maybe you should just swat it...

ORDER: LEPIDOPTERA- Butterflies and moths

2 pairs of wings with colored scales, juveniles are caterpillars



Common Name: Queen Butterfly

Scientific Name: *Danaus gilippus* (Family: Nymphalidae)

Where to find them: On milkweed plants (caterpillars) or blue mist flowers (adults)

How big are they: Up to 3 inches

Fun facts! As a caterpillar the queen butterfly feeds on milkweed. Milkweed contains toxic chemicals that the caterpillar can tolerate but makes it distasteful to predators. The



butterfly communicates its bad flavor to animals with its bright coloration.

Can it be picked up? Yes!



Common Name: Cloudless Sulphur

Scientific Name: *Phoebis sennae* (Family: Pieridae)

Where to find them: Spring mornings often near cassia plants

How big are they: 2 inches

Fun facts! To defend itself from birds, this caterpillar will create a 'tent' made of leaves spun together with silk. The butterflies also fly wildly before landing to rest for the night.



Can it be picked up? Yes!



Common Name: White-lined Sphinx Moth

Scientific Name: *Hyles lineata* (Family: Sphingidae)

When to find them: Summer

How big are they: 2 – 4 inches

Fun Facts! The moths are common in gardens around sunset. People sometimes mistake them for hummingbirds. This insect is one of the most common and abundant species of moths in the entire continental US. The larvae are edible.



Can it be picked up? Yes, but the caterpillars will vomit on you.



Common Name: Giant Swallowtail

Scientific Name: *Papilio cresphontes* (Family: Papilionidae)

When to find them: Spring or fall during the day

How big are they: 3 – 4 inches

Fun facts! The caterpillars are associated with citrus trees, but they disguise themselves from predators by looking like



bird poop.

Can it be picked up? Yes



Common Name: Pipevine Swallowtail

Scientific Name: *Battus philenor* (Family: Papilionidae)

When to find them: February, May - October

How big are they? 2 1/2 – 4 inches

Fun Facts: Males of this species will select and protect a territory during mating season where they can sit and wait

for females to come to them.

Can it be picked up? Yes



Common Name: Rustic Sphinx Moth

Scientific Name: *Manduca rustica*
(Family: Sphingidae)

When to find them: Summer nights

How big are they: 3 – 5 inches

Fun facts! The rustic sphinx has a charismatic green and white striped caterpillar that you'll see feeding on plants such as tomatoes and desert willow in the summer.

Can it be picked up? Yes.



Common Name: California Sister

Scientific Name: *Adelpha californica* (Family: Nymphalidae)

Where to find them: oak woodlands

How big are they: 2 1/2 – 4 inches

Fun Facts! Adult butterflies are often found near host plants in canyons with water. The tiny green eggs are laid on the upper surface of the tip of oak leaves. Adults are seen landing near water or mud puddles to drink up valuable moisture.

Can it be picked up? Yes



Common Name: Cabbage White Butterfly

Scientific Name: *Pieris rapae* (Family: Pieridae)

When to find them: Late February to Mid-November

How big are they: Wingspan 1 – 2 inches

Fun Facts! This butterfly is a non-native species here in North America, it was accidentally introduced over 50 years ago. It quickly spread all across the continent and is seen as a pest by gardeners. The caterpillars feed on cabbage, kale radish, broccoli and horseradish. If you catch one count the spots on the wings. Males have just one spot on each wing and females have two spots on each wing.

Can it be picked up? Yes



Common Name: Bagworm

Scientific Name: *Oiketicus toumeyii* (Family: Psychidae)

Where to find them: hanging on branches of various shrubs and trees

How big are they: 1/4 – 1 inches

Fun Facts! Bagworm caterpillars make their chrysalis out of silk and leaves. Females are flightless and spend their whole life inside their silken camouflage bag. Males somehow still manage to find their well-hidden mates who even lay their eggs inside then die before their

babies hatch.

Can it be picked up? Yes

ORDER: HYMENOPTERA - Bees, wasps and ants

2 pairs of wings (ants are usually wingless), skinny 'waist' between thorax and abdomen, stingers (females only)



Common Name: Honeybee

Scientific Name: *Apis mellifera* (Family: Apidae)

When to find them: spring/ summer days

How big are they: Up to 1 inch

Fun facts! These bees are THE bee for most people. Honeybees are social insects with a queen and her workers (all female). Honeybees

are important for their pollination and delicious honey.

Can it be picked up? No, they will sting!



Common Name: Leafcutter Bee

Scientific Name: (Family: Megachilidae)

When to find them: Spring/ summer days

How big are they: 1/2 – 3/4 of an inch

Fun facts! These solitary bees do exactly what their name suggests, cut leaves. These leaves are used to

create a nest for their young . These bees pollinate many local flowers.

Can it be picked up? No, they will sting if they feel threatened!



Common Name: Sweat Bee

Scientific Name: (Family: Halictidae)

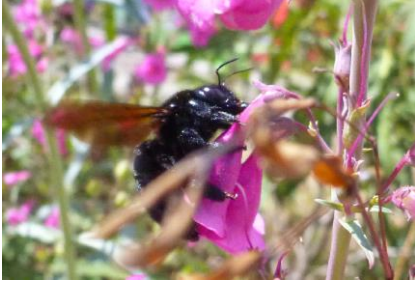
When to find them: During spring/ summer days

How big are they: 1/2 – 3/4 of an inch

Fun facts! These solitary bees nest in soil and rotten wood. They can be brilliantly colored and are important

pollinators of local Southwest flowers.

Can it be picked up? No, they may sting!



Common Name: Valley Carpenter Bee

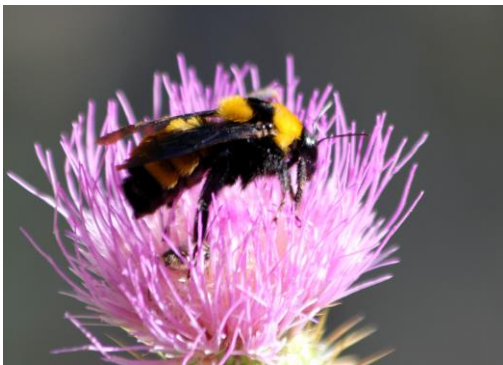
Scientific Name: *Xylocopa varipuncta* (Family: Anthophoridae)

When to find them: During spring days

How big are they: Up to 1 inch

Fun facts! These bees are so big that they cannot fit inside flowers like honeybees. Instead they drill holes into the side of the flower and 'rob' nectar without pollinating the plant. They steal the nectar and then bring it back to their individual nests that they build in decaying trees or even telephone poles.

Can it be picked up? No.



Common Name: Sonoran Bumblebee

Scientific Name: *Bombus sonorus* (Family: Apidae)

Where to find them: flying through the air

How big are they: 1/2 – 3/4 inch

Fun Facts! Bumblebees are buzz pollinators. This means they use the vibration of their flight muscles to shake pollen out of flowers. The pollen collected is used to feed the bumblebee larvae.

Can it be picked up? NO, they sting.



Common Name: Leaf Cutter Ants

Scientific Name: *Acromyrmex versicolor* (Family: Formicidae)

Where to find them: In sandy areas

How big are they: 1/4 inch

Fun facts! Leaf cutter ants can be seen carrying leaves back to their colonies. They



don't eat the leaves, however, but use them to grow a special type of fungus for food. You can recognize leaf cutter ants because they are very spikey compared to other ants. Their nest looks like a volcano.

Can it be picked up? Yes but they do bite.



Common Name: Harvester Ants

Scientific Name: *Pogonomyrmex spp.* (Family: Formicidae)

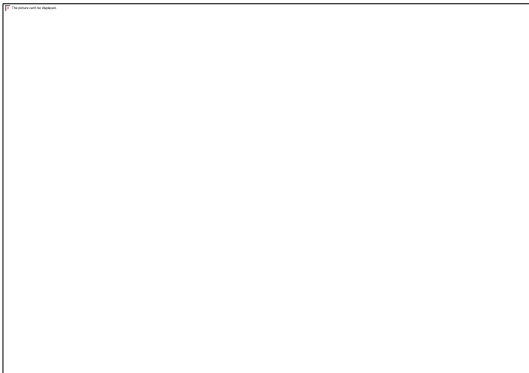
Where to find them: In pebbly areas in the Spring – Fall

How big are they: 1/2 of an inch

Fun facts! Harvester ants do exactly that, harvest. These seed harvesters have large seed stores in their nest which is their main food

source. You can recognize them by their bobble-head look and their mound of pebbles, which are all a similar size!

Can it be picked up? No, they have big jaws and a painful sting!



Common Name: Fire Ants

Scientific Name: *Solenopsis xyloni* (Family: Formicidae)

Where to find them: In sandy areas

How big are they: 1/5 – 1/4 of an inch

Fun facts! Fire ants are known by their sting that feels like fire. These tiny ants are actually important predators of insects, and are native to

Arizona, unlike their cousin the invasive fire ant. These ants forage early in the day and later in the evening to avoid the heat. They have many size classes, making identification tricky. If you see red ants with darker abdomen, it's probably a fire ant.

Can it be picked up? NO, they have a painful sting!



Common Name: Cockerelli's Harvester Ant.

Scientific Name: *Novomessor cockerelli* (Family: Formicidae)

Where to find them: In sandy and pebbly areas

How big are they: 3/4 inch

Fun facts! These, like *Pogonomyrmex* are harvester ants that collect seeds for their food stores. They don't sting and can have territorial fights with *Pogonomyrmex*. You can identify them by their large slender bodies and long thin legs.

Can it be picked up? No, they can bite.



Common Name: Tarantula Hawk

Scientific Name: *Pepsis* spp. (Family: Pompilidae)

When to find them: During monsoon

How big are they: Up to 3 inches

Fun facts! Tarantula hawks are brightly colored wasps. They use their color to display to predators that they aren't good to eat. The females have a big stinger that she uses to paralyze a tarantula. Then she drags it to her burrow and lays an egg on it. The wasp larvae eat the spider.

Can it be picked up? NO! NO! NO! NO! NO! NO! NO! NO! The sting is very painful.



Common Name: Paper Wasp

Scientific Name: *Polistes* spp. (Family: Vespidae)

When to find them: During the day in the warm parts of the year

How big are they: 1 – 2 inches

Fun facts! Paper wasps are social, like honey bees, and build characteristic paper nests. They build their nests from chewed up wood that gives them the paper-like appearance. They don't eat wood though; they are really fierce predators of other insects.

Can it be picked up? NO! These wasps can be very aggressive.

<https://extension.arizona.edu/insect-discovery>