

A close-up photograph of a green grasshopper perched on a plant stem. The grasshopper is facing right, with its long hind legs and antennae clearly visible. The plant stem has a dark, textured, spherical seed head or flower head. The background is a soft, out-of-focus natural setting with green and brown tones.

Arthropods of Austin

presented by Valerie Bugh

The Phylum Arthropoda

classes:	Insecta Entognatha Chilopoda Diplopoda
subclass:	Arachnida
subphylum:	Crustacea

The Big Orders

- | | |
|----------------|----------------------------|
| 1. Coleoptera | beetles |
| 2. Lepidoptera | butterflies, moths |
| 3. Hymenoptera | bees, wasps, ants |
| 4. Diptera | flies |
| 5. Homoptera | cicadas, leafhoppers, etc. |
| 6. Hemiptera | true bugs |



ground
beetles



water scavenger beetle



rove beetles



scarabs



metallic wood-boring beetles





**click beetles
and
larva (wireworm)**



fireflies



glowworm



misc. beetles



soldier beetle



lizard beetle

dermestid



false blister beetle



tumbling flower beetle

soldier beetle



ladybird beetles





darkling beetle

ironclad beetle



blister beetles





long-horned beetles



leaf beetles



weevils

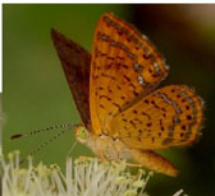




swallowtails



metalmarks



skippers



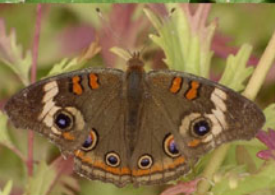


sulphurs



**gossamer-winged
butterflies**





**brush-footed
butterflies**





clearwing

misc. daytime-flying moths



thyris



grapevine epimenis

white-tipped black



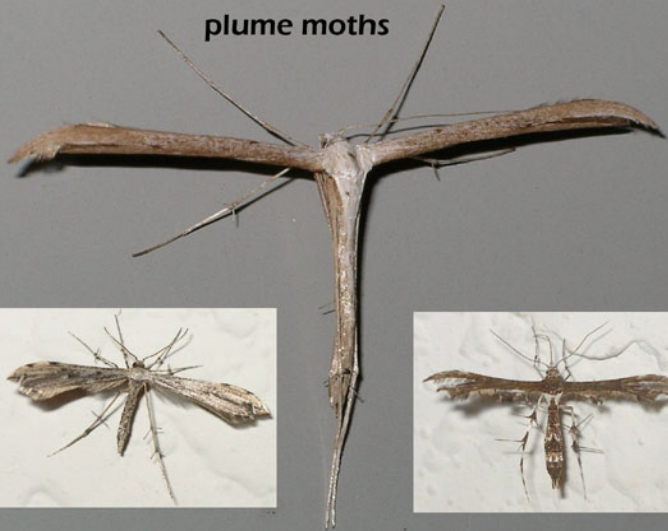
grapeleaf skeletonizer



microlepidopterans



plume moths





crambid snout moths





pyralid moths



**puss caterpillars
(flannel moths)
and
slug caterpillars**



geometrid moths







lichen and tiger
moths





prominents



noctuid moths



noctuid caterpillars

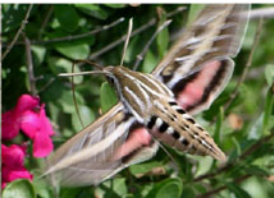




sphinx moth caterpillars = hornworms



sphinx moths



misc. caterpillars and pupa

forest tent
caterpillar



stinging caterpillars

southern tussock moth
caterpillar



lo moth caterpillar



bagworm
cocoon



The Big Orders

- | | |
|-----------------------|----------------------------|
| 1. Coleoptera | beetles |
| 2. Lepidoptera | butterflies, moths |
| 3. Hymenoptera | bees, wasps, ants |
| 4. Diptera | flies |
| 5. Homoptera | cicadas, leafhoppers, etc. |
| 6. Hemiptera | true bugs |





photo courtesy of Joe Lapp



braconid wasps



ichneumons





gall wasp



leucospidid



tiphiid



gasteruptiid

cuckoo wasp



**misc.
wasps**



ensign wasp



spider wasps



scoliid wasps



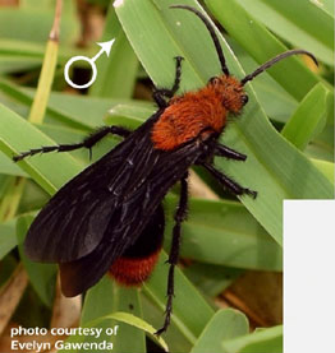


photo courtesy of Evelyn Gawenda



velvet ants



ants



yellowjackets



paper
wasps





potter
wasp



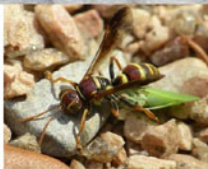
mason wasps



cicada killer



katydid hunter



**sphecid
wasps**



leafhopper specialist

stink bug predator



sphecid wasps



sweat bee



mining bee



yellow-faced bee



plasterer bee



sweat bee



megachilids



leaf damage

parasitic leaf-cutter bee



mason bee

leaf-cutter bee



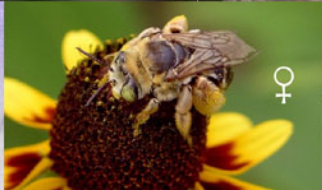
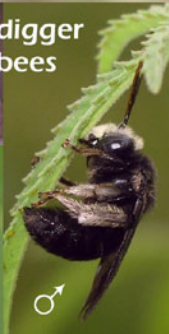
bumble bee



carpenter bees

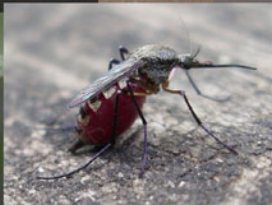
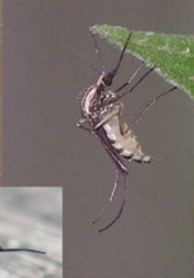


**digger
bees**



honey bee





mosquitoes



fungus gnat



crane fly



long-legged fly



crane fly



**flies often
mistaken for
mosquitoes**

long-legged fly



love bugs

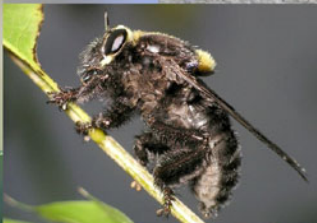


midge





robber
flies





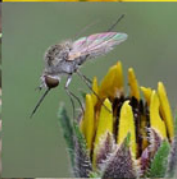
tachinid flies



hover flies



bee flies





house
fly



horse fly



flesh fly



blow fly

cactus fly



soldier fly



dung fly



picture-winged flies



soldier fly



picture-winged fly



soldier fly



thick-headed fly



stilt-legged fly



stiletto fly



platystomatid flies



big-headed flies



black scavenger fly



root maggot fly



fruit fly



lauxaniid fly



fruit fly



shore fly



frit fly



vinegar fly



frit fly



The Big Orders

- | | |
|---------------------|-----------------------------------|
| 1. Coleoptera | beetles |
| 2. Lepidoptera | butterflies, moths |
| 3. Hymenoptera | bees, wasps, ants |
| 4. Diptera | flies |
| 5. Homoptera | cicadas, leafhoppers, etc. |
| 6. Hemiptera | true bugs |

cicadas



leafhoppers





treehoppers

nymphs

spittlebugs





planthoppers





aphids





**cochineal
insects**



mealybugs



whiteflies



scale insects



plant bugs



scentless plant bugs

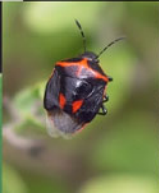
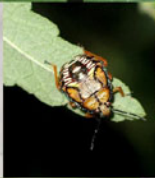




seed bugs



stink bugs



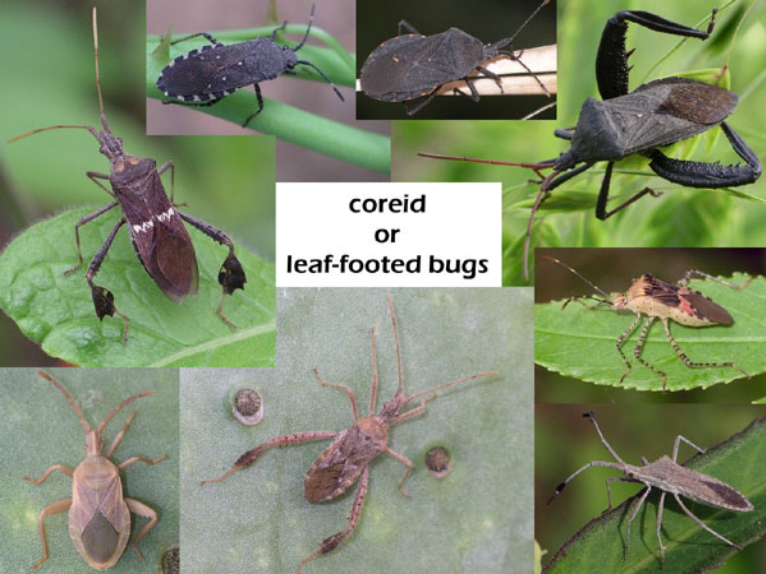


bugs that live on water





broadheaded bugs



**coreid
or
leaf-footed bugs**

Acanthocephala



Leptoglossus



Mozena



**coreid bug adults
and
nymphs**

assassin bugs

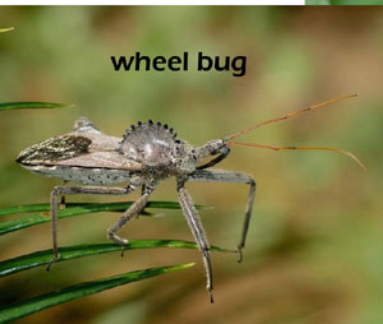


**unusual
assassin bugs**

thread-legged bug



wheel bug



bloodsucking conenose

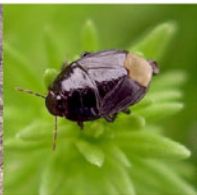


ambush
bugs





shield bugs



burrowing bugs

toad bug

**misc.
bugs**

lace bug



**flat
bug**



lace bugs



**largus bug
and nymph**



damsel bug

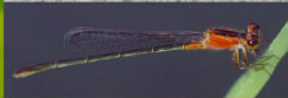


stilt bug



Primitive Winged Insects

- | | |
|------------------|--------------------------|
| 1. Odonata | dragonflies, damselflies |
| 2. Ephemeroptera | mayflies |
| 3. Plecoptera | stoneflies |



damselflies

dragonflies



mayflies





stoneflies



Long-winged Insects

- | | |
|------------------|-------------------------------|
| 1. Neuroptera | lacewings, antlions, etc. |
| 2. Mecoptera | scorpionflies |
| 3. Megaloptera | dobsonflies, alderflies, etc. |
| 4. Raphidioptera | snakeflies |
| 5. Trichoptera | caddisflies |



antlions



mantisflies



owlfly and larva



dustywing



lacewing and larva



scorpionfly



hangingfly



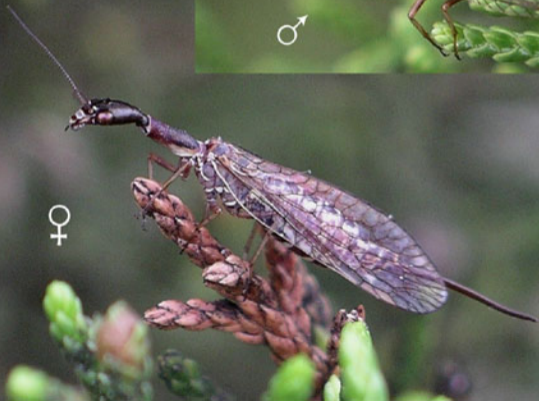
dobsonfly

♀



photo courtesy of Craig Nazar

snakefly





caddisflies



The Orthopteroid Insects

- | | |
|----------------|------------------------------|
| 1. Orthoptera | grasshoppers, crickets, etc. |
| 2. Blattodea | cockroaches |
| 3. Phasmatodea | stick insects |
| 4. Mantodea | mantids |
| 5. Dermaptera | earwigs |
| 6. Isoptera | termites |

pygmy grasshoppers



**pygmy
mole cricket**





**slant-faced
grasshoppers**



band-winged grasshoppers





**spur-throated
grasshoppers**



bird grasshoppers



katydids



cone-headed

bush

thread-legged

angular-winged



meadow





shield-
backs

short-
winged



true



predatory



more
katydid



crickets

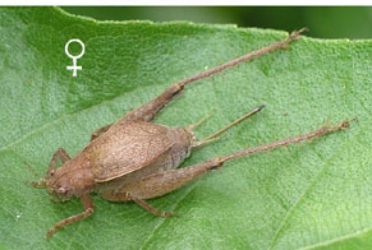


tree cricket



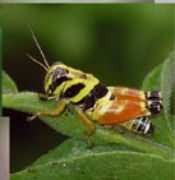
field cricket

bush cricket



scaly cricket





cockroaches





stick insects





mantids

earwigs





termites





galls

Misc. Insect Orders

- | | |
|------------------|------------------------|
| 1. Thysanura | silverfish |
| 2. Microcoryphia | bristletails |
| 3. Siphonaptera | fleas |
| 4. Collembola | springtails |
| 5. Thysanoptera | thrips |
| 6. Embioptera | webspinners |
| 7. Psocoptera | barklice, booklice |
| 8. Strepsiptera | twisted-wing parasites |

silverfish



jumping bristletail



flea





springtails





thrips

webspinner

♂



♀





barklice



photo courtesy of Mike Quinn

twisted-wing parasites

Arachnid Orders

- | | |
|---------------------|-----------------|
| 1. Araneae | spiders |
| 2. Scorpiones | scorpions |
| 3. Pseudoscorpiones | pseudoscorpions |
| 4. Opiliones | harvestmen |
| 5. Acari | mites, ticks |

mygalomorphs



tarantulas



trapdoor spider



funnelweb spider





♀

♂



southern house spider



**brown
recluse**



**spitting
spider**



**hackled mesh
weaver**



antmimic spider



cellar spider



sac spider



ghost spider

pirate spider



misc. spiders



cobweb weavers



bowl and doily spider



filmy dome spiders



sheetweb weavers

funnel weavers





orbweaver web

orbweavers





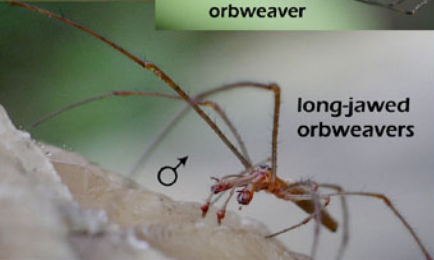
feather-
legged
orbweaver



orchard
orbweaver



golden silk
orbweaver



long-jawed
orbweavers



♀



♀

nursery web spiders





wolf
spiders

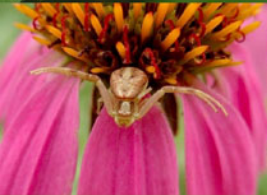




lynx spiders



crab spiders



**running
crab
spiders**





jumping spiders





scorpions





pseudoscorpions







velvet mite



wood tick

**spider
mites**

Acari

Crustacea Orders

- | | |
|--------------|-------------------|
| 1. Isopoda | pillbugs, sowbugs |
| 2. Amphipoda | scud |

Myriapod Classes

- | | |
|--------------|------------|
| 1. Chilopoda | centipedes |
| 2. Diplopoda | millipedes |



sowbug

isopods



pillbug



scud





centipedes





millipedes

