



Taxonomic Groups of Insects, Mites and Spiders

Pests of trees and shrubs

Class Arachnida, Spiders and mites

Order Acari, Mites and ticks

Family Eriophyidae, Leaf vagrant, gall, erineae, rust, or eriophyid mites

ash flower gall mite, *Aceria fraxiniflora*
elm eriophyid mite, *Aceria parulmi*
eriophyid mites, several species
hemlock rust mite, *Nalepella tsugifoliae*
maple spindlegall mite, *Vasates aceriscrumena*
maple velvet erineum gall, several species

Family Tarsonemidae, Cyclamen and tarsonemid mites

cyclamen mite, *Phytonemus pallidus*

Family Tetranychidae, Freeranging, spider mites, tetranychid mites

boxwood spider mite, *Eurytetranychus buxi*
clover mite, *Bryobia praetiosa*
European red mite, *Panonychus ulmi*
honeylocust spider mite, *Eotetranychus multidigituli*
spruce spider mite, *Oligonychus ununguis*
twospotted spider mite, *Tetranychus urticae*

Class Insecta, Insects

Order Coleoptera, Beetles

Family Buprestidae, Metallic woodboring beetles

bronze birch borer, *Agrilus anxius*
emerald ash borer, *Agrilus planipennis*
flatheaded appletree borer, *Chrysobothris femorata*
twolined chestnut borer, *Agrilus bilineatus*

Family Cerambycidae, Longhorned beetles

Asian longhorned beetle, *Anoplophora glabripennis*
elm borer, *Saperda tridentata*
linden borer, *Saperda vestita*
locust borer, *Megacyllene robiniae*
roundheaded appletree borer, *Saperda candida*
twig girdler, *Oncideres cingulata*
twig pruner, *Anelaphus villosus*
whitespotted sawyer, *Monochamus scutellatus*

Family Chrysomelidae, Leaf beetles

cottonwood leaf beetle, *Chrysomela scripta*
elm leaf beetle, *Pyrrhalta luteola*
imported willow leaf beetle, *Plagiodera versicolora*

Family Curculionidae, Snout beetles or weevils

black vine weevil, *Otiorynchus sulcatus*
Pales weevil, *Hylobius pales*
pine root collar weevil, *Hylobius radialis*
poplar-and-willow borer, *Cryptorhynchus lapathi*
strawberry root weevil, *Otiorynchus ovatus*
white pine weevil, *Pissodes strobi*

Family Scarabaeidae, Scarab beetles

Japanese beetle, *Popillia japonica*

Family Scolytidae, Bark or engraver beetles

ambrosia bark beetle, *Xylosandrus germanus*

elm bark beetle, smaller European *Scolytus multistriatus*
elm bark beetle, native *Hylurgopinus rufipes*
pine bark engraver, *Ips pini*
pine shoot beetle, *Tomicus piniperda*

Order Hemiptera, True bugs, aphids, and scales

Family Adelgidae, Pine and spruce aphids

Cooley spruce gall adelgid, *Adelges cooleyi*
Eastern spruce gall adelgid, *Adelges abietis*
hemlock woolly adelgid, *Adelges tsugae*
pine bark adelgid, *Pineus strobi*

Family Aphididae, Aphids

balsam twig aphid, *Mindarus abietinus*
honeysuckle witches' broom aphid,
Hyadaphis tataricae
white pine aphid, *Cinara strobi*
woolly alder aphid, *Paraprociophilus tessellatus*
woolly apple aphid, *Eriosoma lanigerum*

Family Cercopidae, Froghoppers or spittlebugs

spittlebugs, several species

Family Cicadellidae, Leafhoppers

leafhoppers, several species

Family Coccidae, Soft, wax and tortoise scales

calico scale, *Eulecanium cerasorum*
cottony maple scale, *Pulvinaria innumerabilis*
European fruit lecanium scale, *Parthenolecanium corni*
Fletcher scale, *Parthenolecanium fletcheri*
pine tortoise scale, *Toumeyella parvicornis*
smaller spruce bud scale, *Physokermes hemicryphus*
tuliptree scale, *Toumeyella liriodendri*

Family Diaspididae, Armored scales

black pineleaf scale, *Nuculaspis californica*
euonymus scale, *Unaspis euonymi*
gloomy scale, *Melanaspis tenebricosa*
juniper scale, *Carulaspis juniperi*
obscure scale, *Melanaspis obscura*
oystershell scale, *Lepidosaphes ulmi*
pine needle scale, *Chionaspis pinifoliae*
scurfy scale, *Chionaspis furfura*
scurfy scale, elm, *Chionaspis americana*

Family Eriococcidae, felt scales

European elm scale, *Gossyparia spuria*

Family Flattidae, planthoppers

planthoppers, several species

Family Kermesidae, Gall-like scales

pin oak kermes, *Allokermes galliformis*
pubescent leaf kermes, *Nanokermes pubescens*

Family Miridae, Plant bugs

ash plant bug, *Tropidosteptes amoenus*
fourlined plant bug, *Poecilocapsus lineatus*
honeylocust plant bug, *Diaphnocoris chlorionis*

Family Membracidae, Treehoppers

treehoppers, several species



Taxonomic Groups of Insects, Mites and Spiders (continued)

Family Psyllidae, Jumping plantlice or psyllids
hackberry nipple gall maker, *Pachypsylla celtidismamma*

Family Rhopalidae, Scentless plant bugs
boxelder bug, *Boisea trivittatus*

Family Tingidae, Lace bugs
azalea lace bug, *Stephanitis pyrioides*
lace bugs, several species

Order Hymenoptera, Sawflies, parasitic hymenoptera, ants, wasps and bees

Family Cynipidae, Gall wasps
oak cynipid galls, several species

Family Diprionidae, Conifer sawflies
European pine sawfly, *Neodiprion sertifer*
introduced pine sawfly, *Diprion similis*
redheaded pine sawfly, *Neodiprion lecontei*
sawflies, several species

white pine sawfly, *Neodiprion pinetum*
Family Tenthredinidae, Common sawflies
birch leafminer, *Fenusa pusilla*
brownheaded ash sawfly, *Tomostethus multicolor*
dogwood sawfly, *Macremphytus tarsatus*
dusky birch sawfly, *Croesus latitarsus*
mountainash sawfly, *Pristiphora geniculata*
pear sawfly, *Caliroa cerasi*
yellowheaded spruce sawfly, *Pikonema alaskensis*

Order Lepidoptera, Butterflies and moths

Family Arctiidae, Tiger or footman moths
fall webworm, *Hyphantria cunea*

Family Argyresthiidae, Ermine moths
arborvitae leafminer, *Arbyresthia thuiella*

Family Coleophoridae, Casebearers
elm casebearer, *Coleophora ulmifoliella*

Family Galacticidae, Webworms
mimosa webworm, *Homadaula anisocentra*

Family Geometridae, Measuring worms or geometers
cankerworms, fall, *Alsophila pometaria*
cankerworms, spring, *Paleacrita vernata*

Family Lasiocampidae, Tent caterpillars
Eastern tent caterpillar, *Malacosoma americanum*
forest tent caterpillar, *Malacosoma disstria*

Family Lymantriidae, Tussock and gypsy moths
gypsy moth, *Lymantria dispar*
whitemarked tussock moth, *Orgyia leucostigma*

Family Notodontidae, Prominents
poplar tentmaker, *Clostera inclusa*
redhumped caterpillar, *Schizura concinna*
walnut caterpillar, *Datana integerrima*
yellownecked caterpillar, *Datana ministra*

Family Nymphalidae, Brush-footed butterflies
mourningcloak butterfly, *Nymphalis antiopa*

Family Psychidae, Bagworm moths
bagworm, *Thyridopteryx ephemeraeformis*

Family Pyralidae, Pyralid moths
Zimmerman pine moth, *Dioryctria zimmermani*

Family Sesiidae, Clear-winged moths
clearwing borers, several species

Family Tortricidae, Tortricid moths
Eastern pine shoot borer, *Eucosma gloriola*
European pine shoot moth, *Rhyacionia buoliana*
spruce budworm, *Choristoneura fumiferana*
uglynest caterpillar, *Archips cerasivorana*

Order Thysanoptera, Thrips

Family Phlaeothripidae, Phlaeothripid moths
pine thrips, *Gnophothrips* species

Insects feeding on turf

Class Insecta, Insects

Order Coleoptera, Beetles, weevils

Family Curculionidae, Snout beetles or weevils
bluegrass billbug, *Sphenophorus parvulus*

Family Scarabaeidae, Scarab beetles
Aphodius beetle, *Aphodius granarius*
black turfgrass Ataenius, *Ataenius spretulus*
false Japanese beetle, *Strigoderma arbicola*
green June beetle, *Cotinis nitida*
Japanese beetle, *Popillia japonica*
May/June beetles, *Phyllophaga* species
Northern masked chafer, *Cyclocephala borealis*
Oriental beetle, *Anomala orientalis*
white grubs, several species

Order Hemiptera, True bugs, aphids, and scales

Family Aphididae, Aphids
greenbug, *Schizaphis graminm*

Family Cicadellidae, Leafhoppers
leafhoppers, several species

Family Lygaeidae, Bigeyed bugs
chinch bugs, *Blissus species*
false chinch bug, *Nysius raphanus*

Order Lepidoptera, Butterflies and moths

Family Noctuidae, Noctuid moths
armyworm, *Pseudaletia unipuncta*
armyworm, fall, *Spodoptera frugiperda*
cutworm, black, *Agrotis ipsilon*
cutworm, bronzed, *Nephelodes mimians*
cutworm, variegated, *Peridroma saucia*
sod webworms, *Crambus* and *Parapediasia* species

Beneficial insects, mites and spiders

Class Arachnida, Spiders and mites

Order Acari, Mites and ticks

Family Phytoseiidae, Predatory mites
phytoseiid mites, *Phytoseiulus* species



Taxonomic Groups of Insects, Mites and Spiders (continued)

Order Araneae, Spiders

Several families

spider, several species

Class Insecta, Insects

Order Coleoptera, Beetles

Family Cantharidae, Soldier beetles

soldier beetle, *Chaliognathus pennsylvanicus*

Family Carabidae, Ground beetles

caterpillar hunter, *Calosoma sycophanta*

Family Cicindelidae, Tiger beetles

tiger beetle, several species

Family Coccinellidae, Lady beetles

convergent lady beetle, *Hippodamia convergens*
mealybug destroyer, *Cryptolaemus montrouzieri*
multicolored Asian lady beetle, *Harmonia axyridis*
pink, or twelve-spotted, lady beetle,
Coleomegilla maculata
spider mite destroyer, *Stethorus punctum picipes*
twicestabbed lady beetle, *Chilocorus stigma*
two-spotted lady beetle, *Adalia bipunctata*

Order Diptera, Flies, gnats, midges, tachinids

Family Asilidae, Robber flies

robber fly, several species

Family Cecidomyiidae, Gall and predatory midges

predaceous midge, *Aphidoletes aphidimyza*

Family Syrphidae, Syrphid or hover flies

hover flies, several species

Family Tachinidae, Tachinid flies

tachinid fly, several species

Order Hemiptera, True bugs

Family Anthocoridae, Pirate bugs

insidious flower bug, *Orius insidiosus*

Family Lygaeidae, Bigeyed bugs

bigeyed bug, *Geocoris* species

Family Miridae, Plant or leaf bugs

plant bug, *Deraeocoris nebulosus*

Family Pentatomidae, Stink bugs

spined soldier bug, *Podisus maculiventris*
two-spotted stink bug, *Perillus bioculatus*

Family Reduviidae, Assassin bugs

adult assassin bug, several species
wheel bug, *Arilus cristatus*

Order Hymenoptera, Parasitic wasps, wasps, ants, and bees

Family Aphelinidae, Aphelinid wasps

whitefly parasitoid, *Encarsia formosa*

Family Braconidae, Braconid wasps

braconid wasp, several species
gypsy moth parasitoid, *Cotesia melanoscela*
imported cabbageworm parasitoid, *Cotesia glomerata*
tomato hornworm parasitoid, *Cotesia congregata*

Family Chalcididae, Chalcidid wasps or gall wasps
chalcidid wasp, several species

Family Encyrtidae, Encyrtid wasps
soft scale parasitoid, *Encyrtus fuscus*

Family Ichneumonidae, Ichneumonid wasps
ichneumonid wasp, several species

Family Scelionidae, Scelionid wasps
scelionid wasp, several species

Family Trichogrammatidae, Trichogrammid wasps

Family Vespidae, Wasps
paper wasp, *Polistes* species
potter wasp, several species
yellow jacket, *Vespula* species

Order Neuroptera, Lacewings, mantids, and others

Family Chrysopidae, Green or common lacewings
common green lacewing, *Chrysoperla carnea*

Family Hemerobiidae, Brown lacewings
brown lacewing, several species

Family Mantispidae, Mantidflies
mantidfly, several species

Order Thysanoptera, Thrips

Family Aleoarthropidae, Predatory thrips

Family Phlaeothripidae, Predatory thrips
thrips, several species