

Stop and think: don't consider the exceptions, follow the rule for that **scientific order**.

“ ** ” indicates immature form of an insect.

“ -- ” indicates insect is considered neutral/variable, neither all pest nor all beneficial.

Order ODONATA

Ordinal characteristics: (1) hemimetabolous metamorphosis
(2) chewing mouthparts

Common name	Significance
Dragonfly	Beneficial (B)
**Dragonfly nymph	B
Damselfly	B
**Damselfly nymph	B

Order ORTHOPTERA

Ordinal characteristics: (1) hemimetabolous metamorphosis
(2) chewing mouthparts

Common name	Significance
Banded-wing grasshopper	Pest (P)
Katydid	--
Field cricket	-
Tree cricket	-
Mole cricket	P

Order BLATTODEA

Ordinal characteristics: (1) hemimetabolous metamorphosis
(2) chewing mouthparts

Common name	Significance
American cockroach	P
Oriental cockroach	P
German cockroach	P

Order HEMIPTERA (True bugs)

Ordinal characteristics: (1) hemimetabolous metamorphosis
 (2) piercing-sucking mouthparts

Common Name	Significance
Squash bug	P
Tarnished plant bug	P
Assassin bug	B
Bed bug	P
Boxelder bug	--
Backswimmer	--
Giant water bug	--
Water strider	--
Cicada	--
Leafhopper	P
Treehopper	P
Aphid	P
Soft scale	P
Whitefly	P
Mealybug	P

Order COLEOPTERA: (Beetles)

Ordinal characteristics: (1) holometabolous metamorphosis
 (2) chewing mouthparts

Common Name	Significance
Ground beetle	B
Colorado potato beetle	P
Spotted cucumber beetle	P
Green June beetle	P
**White grub	P
Dung beetle	B
Stag beetle	--

Click beetle	--
Darkling beetle	--
Longhorned beetle	P
Blister beetle	P
Metallic woodboring beetle	P
Rice weevil	P
Boll weevil	P
Tiger beetle	--
Ladybird beetle	B
**Ladybird beetle larva	B
Red flour beetle	P
Firefly	--
Carpet beetle	P
Predaceous diving beetle	--

Order LEPIDOPTERA: (Butterflies, moths, skippers)

- Ordinal characteristics:** (1) holometabolous metamorphosis
(2) Adults have siphoning mouthparts, larvae have chewing mouthparts

Common Name	Significance
**Fall webworm	P
**Tobacco hornworm	P
**Bagworm	P
Indian meal moth	P
Luna moth	B
Sphinx moth	B
Skipper	B
Monarch butterfly	B
Viceroy butterfly	B
Red admiral	B
Painted lady	B
Swallowtail butterfly	B
Sulphur butterfly	B

Order DIPTERA: (Flies)

- Ordinal characteristics:** (1) holometabolous metamorphosis

(2) sponging mouthparts

Common Name	Significance
Mosquito	P
Horse fly	P
Deer fly	P
House fly	P
Crane fly	--
Syrphid fly	B
Blow fly	P
Robber fly	--
Flesh fly	P

Order HYMENOPTERA: (Bees, ants, wasps)

Ordinal characteristics: (1) holometabolous metamorphosis
(2) chewing mouthparts

Common Name	Significance
Red harvester ant	--
Red imported fire ant	P
Velvet ant	--
Cicada killer	--
Tarantula hawk	--
Paper wasp	P
Mud dauber wasp	B
Ichneumon wasp	B
Honey bee	B
Bumble bee	B

Order NEUROPTERA:(Nerve winged insects)

Ordinal characteristics: (1) holometabolous metamorphosis

(2) chewing mouthparts

Common Name

Green lacewing	B
**Lacewing (larva)	B
Antlion	--
**Antlion (larva)	--
Dobsonfly	--
**Hellgrammite	--

Order name	Common name	Metamorphosis	Mouthparts	Significance
THYSANURA	Silverfish	Ametabolous	Chewing	P
EPHEMEROPTERA	Mayfly	Hemimetabolous	None	--
PHASMATODEA	Walkingstick	Hemimetabolous	Chewing	--
DERMAPTERA	Earwig	Hemimetabolous	Chewing	P
ISOPTERA	Termite	Hemimetabolous	Chewing	P
MANTODEA	Praying mantis	Hemimetabolous	Chewing	B
PHTHIRAPTERA	Lice	Hemimetabolous	Piercing-sucking	P
SIPHONAPTERA	Flea	Holometabolous	Piercing-sucking	P

Common Name	Metamorphosis	Mouthparts	Significance
Black widow spider	Ametabolous	Piercing-sucking	P
Brown recluse spider	Ametabolous	Piercing-sucking	P
Brown dog tick	Ametabolous	Piercing-sucking	P
Scorpion	Ametabolous	Chewing	P
Millipede	Ametabolous	Chewing	B
Centipede	Ametabolous	Chewing	B