



















**Coleoptera – beetles**

Holometabola - Complete development

Largest order

Dense exoskeleton that covers and protects most of their body surface

Both larvae and adults have strong manibulate mouthparts

Live on land and fresh-water environments

Major pests of agricultural plants

For families go to 6

**Diptera – true flies**

Holometabola – complete development

Abundant worldwide, larvae are found in all fresh water, semi-aquatic and moist terrestrial environments

Greater economic impact on humans and are pests of agricultural plants and transmit diseases to humans and domestic animals

For families go to 8.

**Siphonaptera – fleas**

Holometabola – complete development

Associated with mammals throughout the world

Adults may live for a year or more and can survive for weeks or months without a blood meal

May transmit pathogens that cause disease in humans and other animals

**Mecoptera – scorpionflies**

Holometabola – complete development

Live in moist sylvian habitats

Larvae and adults are omnivorous

Not considered pests and not abundant to have an environmental impact

For families go to 7

**Strepsiptera - Twisted Wing Parasite**

Holometabola – complete development

Exhibit hypermetamorphic development

Not common in the world and are parasites of other insects

Only first instar larvae and adult males have legs

**Neuroptera – lacewings, antlions**

Madibulate mouthparts

Elongate, soft body

Complex wing venation

Large compound eyes

Different from Megaloptera by the presence of forked veins!

Lack cerci!

Complete metamorphosis (For families go to 5.)

**Megaloptera - dobsonflies**

Complete metamorphosis

Manibulate mouthparts

Larvae are aquatic and may appear caterpillar like and possess gills along the sides of their abdomens

Not strong fliers and found close by freshwater streams

**Thysanoptera– thrips**

Hemimetaobla - Incomplete development

Common inhabitants of flowers, leaf litter, and fungi

Generally small

Destructive pests of plants especially grain crops, fruits and vegetables and ornamentals

**Homoptera – cicadas, aphids, hoppers**

All are plant eaters

Mouthparts adapted for sucking plant sap

Cause injuries to plants

They are bisexual

Metamorphosis is simple or gradual with immature stages resembling adults

For families go to 4.