

## ORDERS OF INSECTS

The following 29 insect orders are numbered in the order of evolutionary complexity with the oldest and most primitive groups listed first. They are also gathered together into a number of groups depending on their degree of relatedness.

### The Insect Orders

Taxonomic Name	Common Name	Species Worldwide
The Apterygota (Wingless insects with no true metamorphosis at all)		
Thysanura	3-Pronged Bristletails	55
Diplura	2-Pronged Bristletails	600
Protura	Proturans	10
Collembola	Springtails	3,000
The Exopterygota (Hemimetabolous insects with incomplete metamorphosis)		
Ephemeroptera	Mayflies	2,000
Odonata	Dragons and Damsels	5,000
Plecoptera	Stoneflies	1,700
Grylloblatodea	Ice Bugs	16
Orthoptera	Grasshoppers, Crickets	20,000
Phasmida	Stick Insects	3,000
Dermaptera	Earwigs	1,200
Embioptera	Web Spinners	300
Dictyoptera	Roaches and Mantids	6,000
Isoptera	Termites	1,900
Zoraptera	Angel Wings	22
Psocoptera	Book and Bark Lice	2,000
Mallophaga	Biting Lice	2,800
Siphunculata	Sucking Lice	300
Hemiptera	True Bugs, Aphids, Cicadas	100,000
Thysanoptera	Thrips	500
The Endopterygota (Holometabolous insects with complete metamorphosis)		
Neuroptera	Lacewings and so forth	4,700
Mecoptera	Scorpion Flies	400
Siphonaptera	Fleas	1,400
Coleoptera	Beetles, June Bugs	370,000
Strepsiptera	Stylops	370
Diptera	Deer Flies, House Flies, Horse Flies, Mosquitoes	100,000
Lepidoptera	Butterflies and Moths	150,000
Trichoptera	Caddisflies	5,000
Hymenoptera	Ants, Bees, and Wasps	120,000 +

#### Directions:

With your group, choose an insect order to research. Then design a presentation (multimedia and oral presentation with drawings, maps, models, and/or spreadsheets and charts) that includes the following information:

- Basic anatomy (show what distinguishes the selected order from the other orders)
- Life cycle
- Habitats (show the extremes)
- Global presence
- Adaptive and defensive structures and behaviors
- Where the insects exist in the food chain/web, and their role in the environment
- Pictures or drawings of examples from the selected order—most extreme, most common, most rare—you decide
- Local species of the insects in the selected order
- harmful and beneficial species in the selected order
- Surprise us with something unique about the selected order!