



Summary of Major Invertebrate Phyla represented at the Butterfly Pavilion

The Butterfly Pavilion is an invertebrate zoo and our mission is to foster an appreciation of butterflies and other invertebrates while educating the public about the need for conservation of threatened habitats in the tropics and around the world. As our focus, invertebrates make up almost 97% of all animal species on earth. Below are the six major invertebrate phyla on display at the Butterfly Pavilion.

Phylum	Porifera	Cnidaria	Molluscs	Annelids	Arthropods	Echinoderms
Meaning	“pore-bearing”	“nettles connected”	“soft” bodies	“little rings”	“jointed legs”	“Spiny skin”
Number	5,000 species	9,000 species	50,000 species	15,000 species	over 1,000,000 species	7,500 species
Characteristics	<ul style="list-style-type: none"> ○ pores for the passage of water (ostia) ○ all sessile as adults ○ no terrestrial species ○ cold-blooded ○ simplest of multi-cellular animals ○ no organs or true tissue 	<ul style="list-style-type: none"> ○ stinging cells (nematocysts) ○ 2 life stages, alternation of generations ○ radial symmetry ○ mouth/anus = oral opening ○ cold-blooded ○ no terrestrial species ○ tissue & organ development 	<ul style="list-style-type: none"> ○ soft bodied creatures ○ mantle ○ rasping tongue ○ muscular foot ○ cold-blooded ○ organs & organelles ○ complete digestive system ○ smartest, most advanced intellect 	<ul style="list-style-type: none"> ○ repeating segments (allows diversity of function) ○ annuli (groove between segments, allows mobility) ○ bilateral symmetry ○ cold-blooded ○ setae – gripping hairs ○ parapodia 	<ul style="list-style-type: none"> ○ jointed legs ○ segmented body ○ exoskeleton ○ cold-blooded ○ bilateral symmetry ○ most adaptable of phyla 	<ul style="list-style-type: none"> ○ endoskeleton (tiny bony filaments) ○ water vascular system ○ cold-blooded ○ no terrestrial species ○ Pentamerous (5) radial symmetry Elongated=cucumbers Flattened=sand dollar Round=urchin Spread=sea star
Examples	Sponges	Jellies Sea anemones Corals Hydras	Nautilus Cuttlefish Nudibranch Clams Snails Octopus	Leeches Earthworms Polychaeta (ocean worms, featherduster worms)	Horseshoe Crabs Crustaceans Insects Spiders Millipedes Centipedes	Sea Urchins Sea Stars Sea Cucumbers Sea Lilies Sand Dollars