Arthropod Tree of Life

The arthropod tree of life in this exhibit shows the evolutionary relationships among groups of living arthropods: insects, spiders, millipedes, crustaceans, and their kin. The tree is a hypothesis, developed by biologists, for how different arthropod groups may have evolved from a common ancestor.

The point where two branches diverge on the tree represents the last common ancestor of those two lineages. Some branches on the diagram are identified by specific characteristics. These characteristics represent new traits evolved in a common ancestor and shared by lineages descending from it.

To create this tree, scientists have analyzed and compared genetic data, the fossil record, anatomy, behavior and embryological development in a variety of arthropods and related species. As new knowledge is gained, biologists will reevaluate relationships among arthropods and their place in the larger tree of life.