



FIGURE 5.7. A phylogenetic tree drawn with three branches emerging from a single node represents a polytomy. (A) A generic polytomy. There are many uses for polytomies in phylogenetic trees. In some cases they are used to represent starburst-like evolutionary patterns when many lineages evolve from a single common ancestor over a very short period of time (i.e., essentially simultaneously). (B) Polytomies are also used to represent ambiguity in a model, such as this tree, which was used in a study that concluded it was not possible to determine the order of branching among turtles, snakes/lizards, and birds/crocodiles.