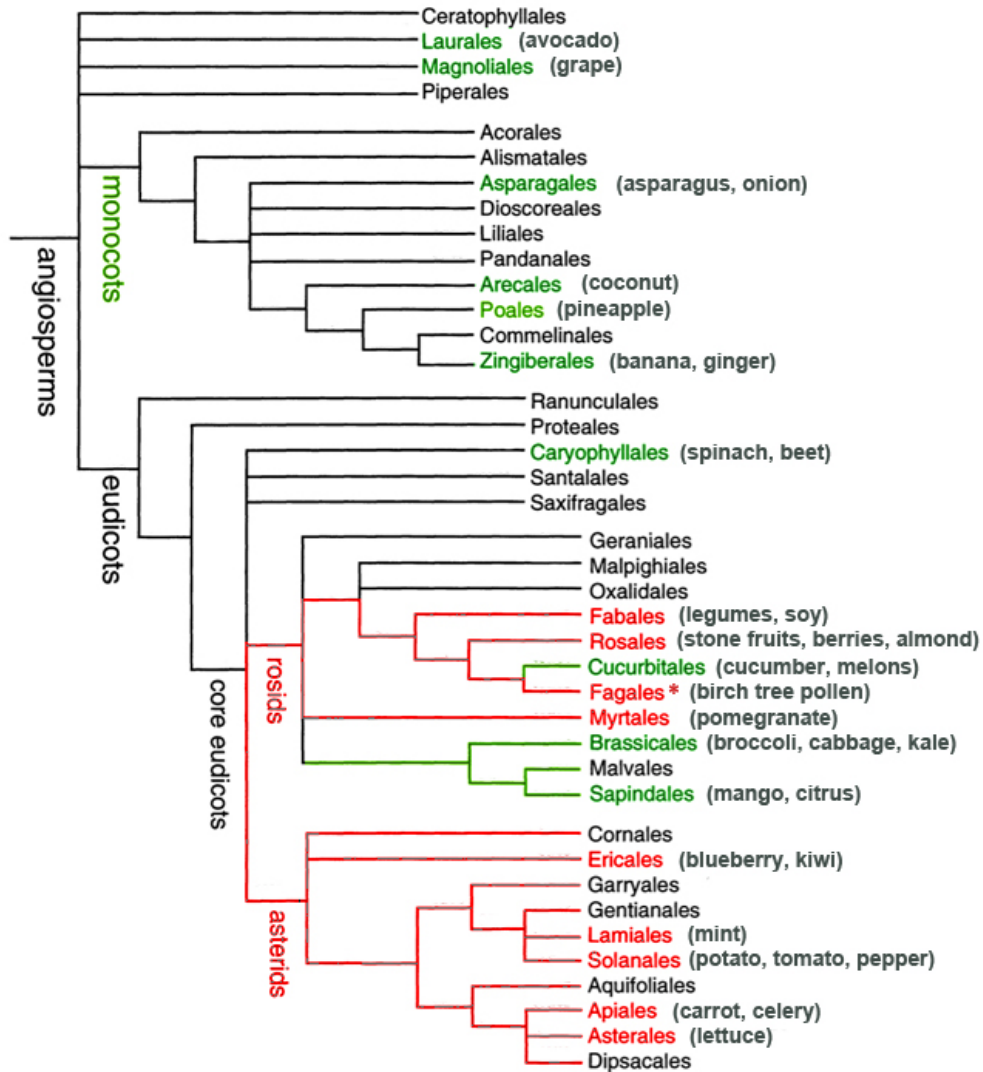


Biosystematics Problem Set

Consider the phylogenetic tree pictured below.



Many things can be determined from phylogenetic trees. Select the correct answers below.

- A. There was likely an adaptive radiation in the monocots
- B. Myrtales can serve as an outgroup for the rosids
- C. The rosids form a complete clade
- D. Cornales to Solanales in the phylogenetic tree is a paraphyletic clade
- E. There is an incidence of polytomy in rosids.

Ruminants are in which mammal order?

- A. Cetartiodactyla
- B. Perissodactyla

- C. Lagomorpha
- D. Xenarthra

Which of the following insect orders have hooked wings (Hamuli hooks)?

- A. Hemiptera
- B. Hymenoptera
- C. Lepidoptera
- D. Coleoptera

This insect order has degenerated wings called halteres.

- A. Diptera
- B. Hymenoptera
- C. Coleoptera
- D. Siphonaptera

This mammal order has three toes.

- A. Carnivora
- B. Perissodactyla
- C. Lagomorpha
- D. Xenarthra

This fungi family contains most of the molds that grow on food.

- A. Zygomycota
- B. Ascomycota
- C. Basidiomycota

In the fungi family the formation of spores results from mitotic division followed after meiosis division

- A. Zygomycota
- B. Ascomycota
- C. Basidiomycota

This type of protist has a equatorial and axial flagella. Species of the genus Ceratium have a distinct hornlike shape. This protist is responsible for red tide.

- A. Diatoms
- B. Dinoflagellates
- C. Euglenoids
- D. Red Algae