Chapter 27: Phylogeny and the history of life

Phylogeny

The history of life

Processes of diversification

Outline

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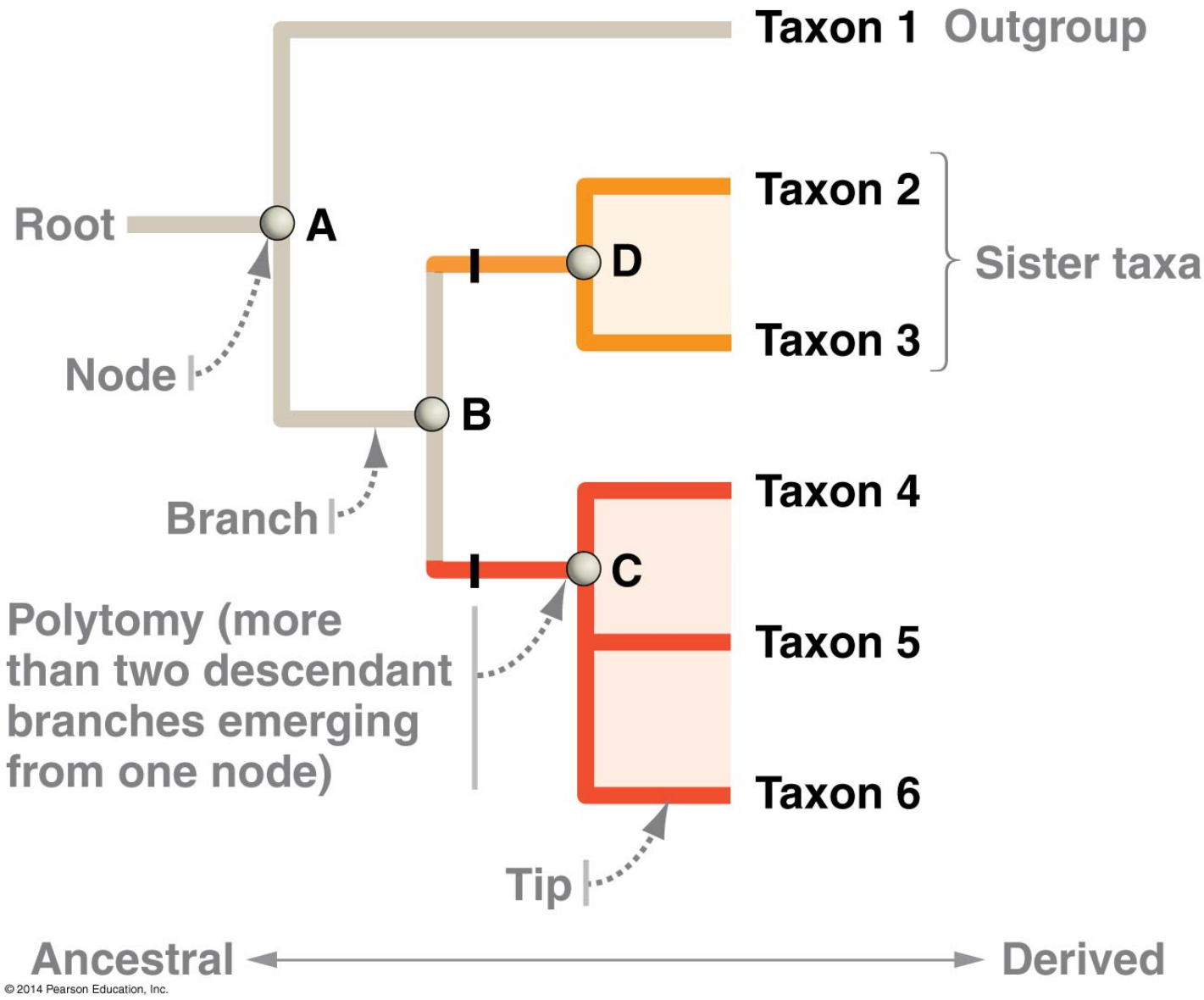

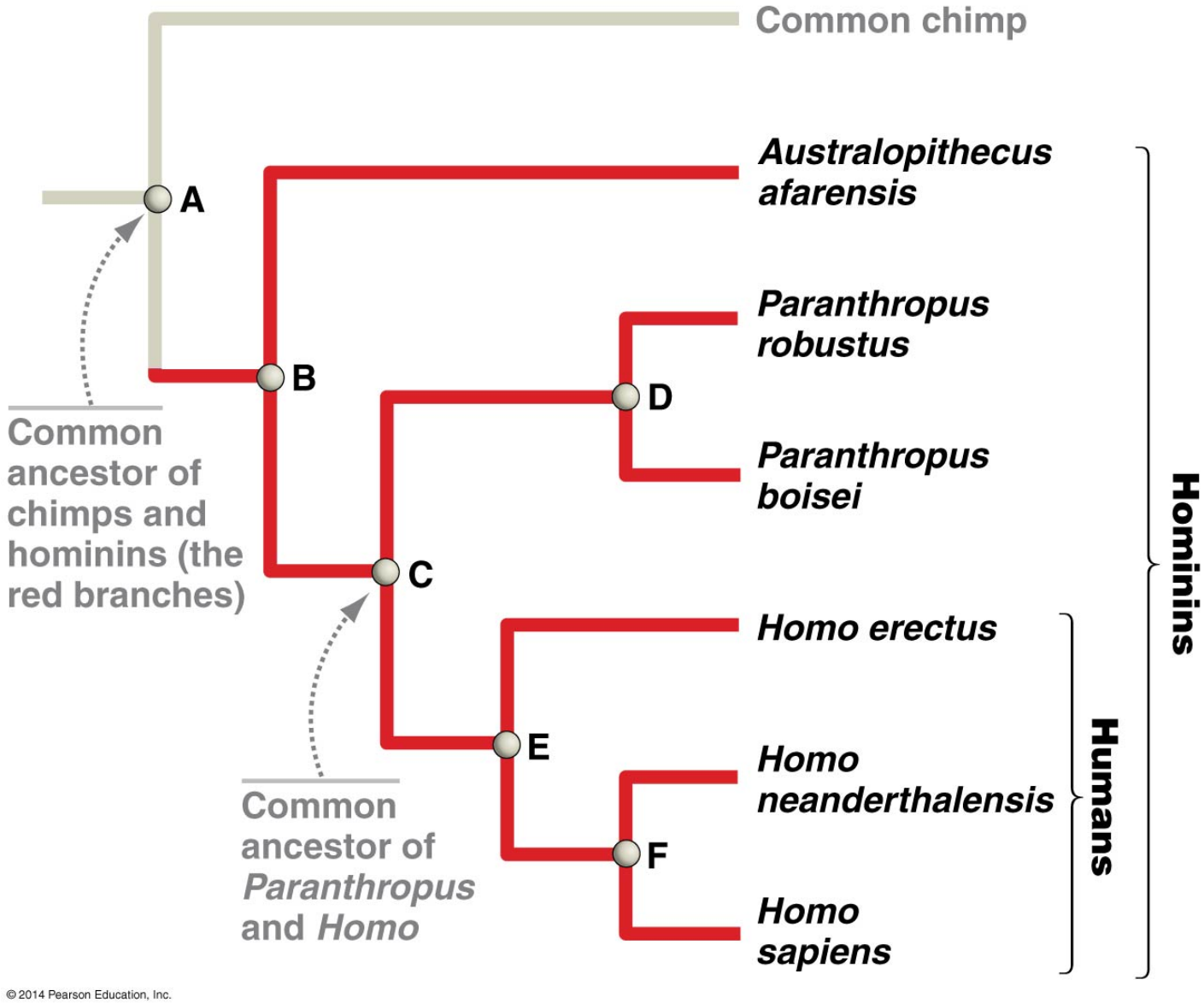

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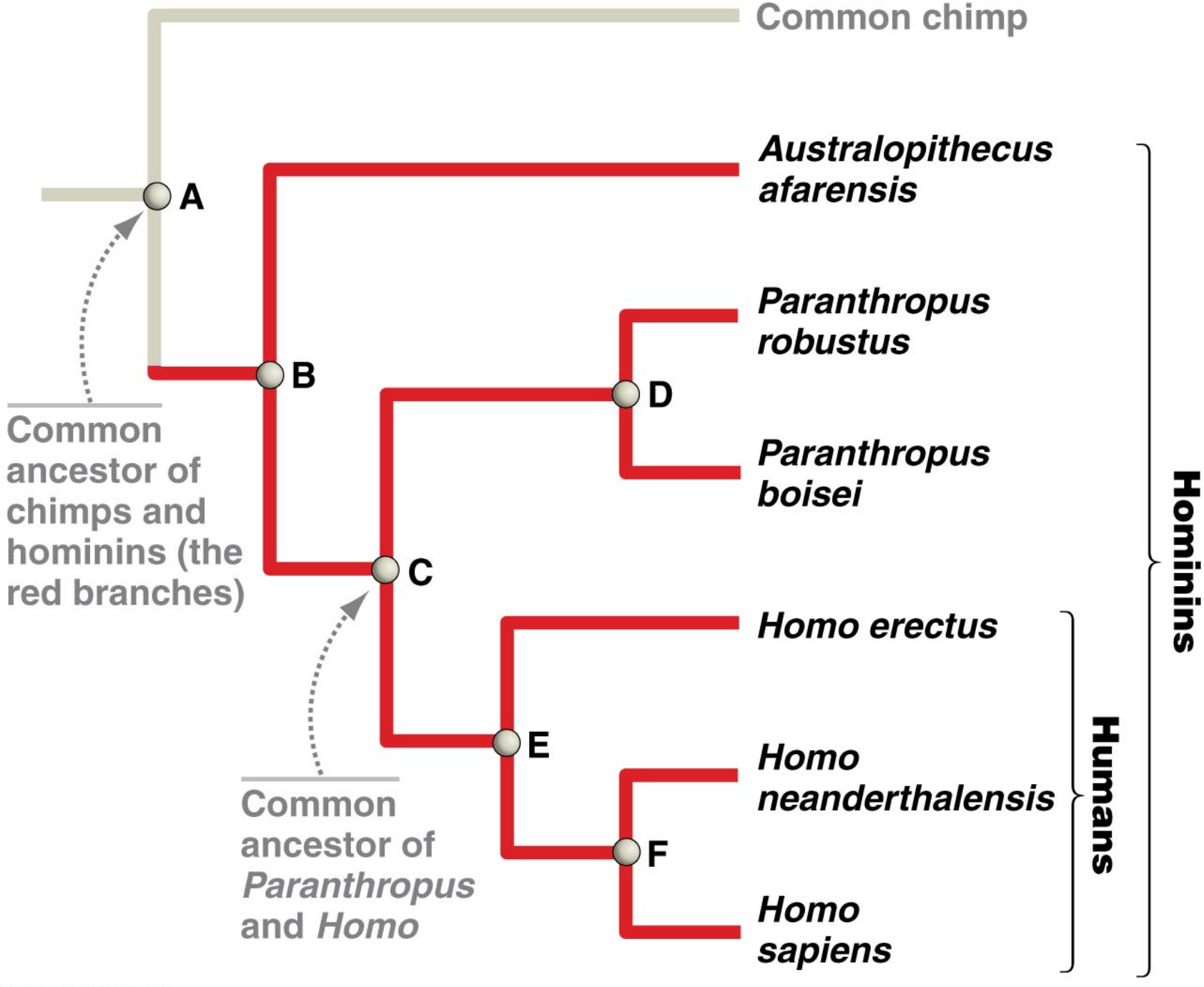

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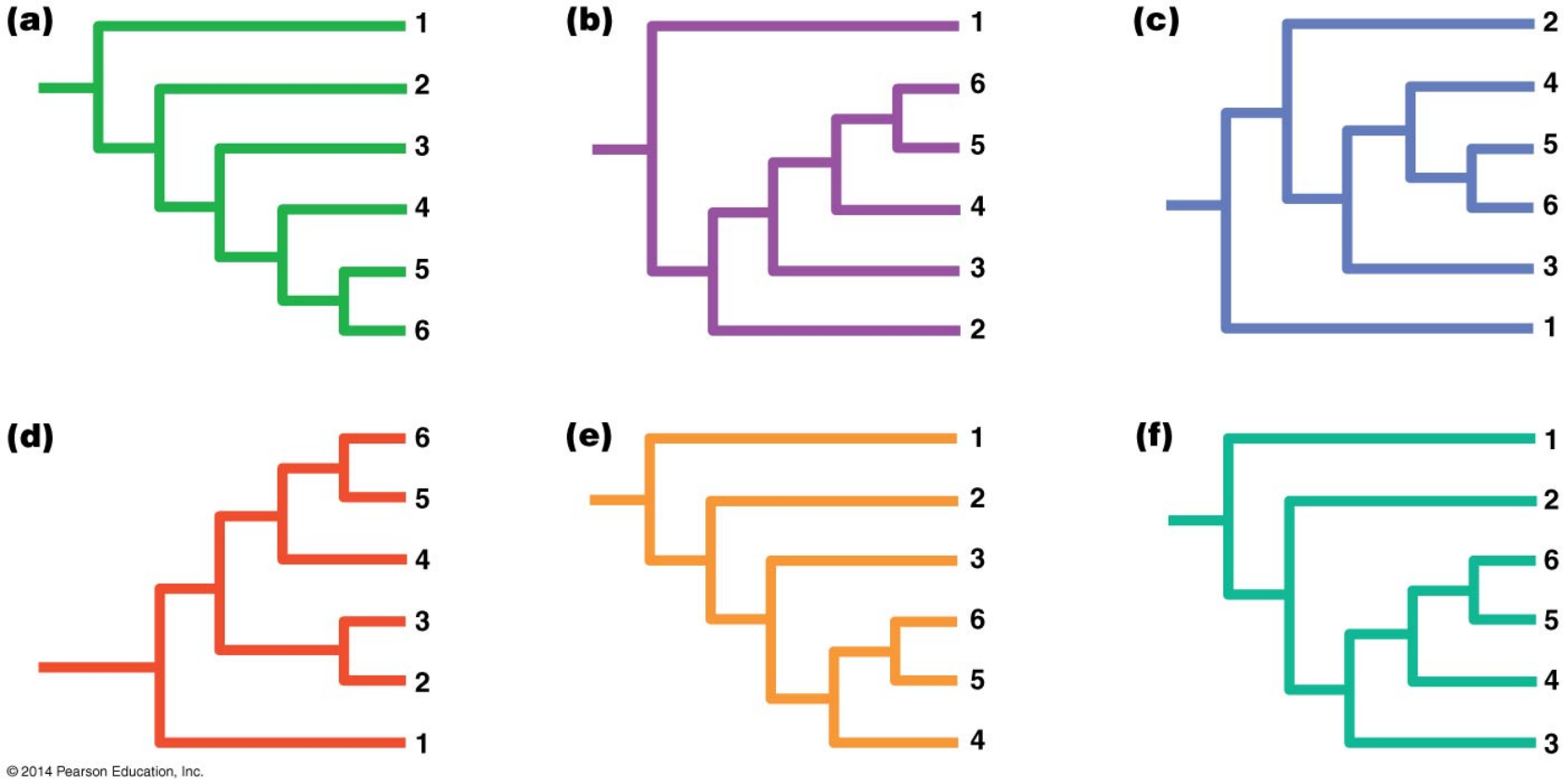

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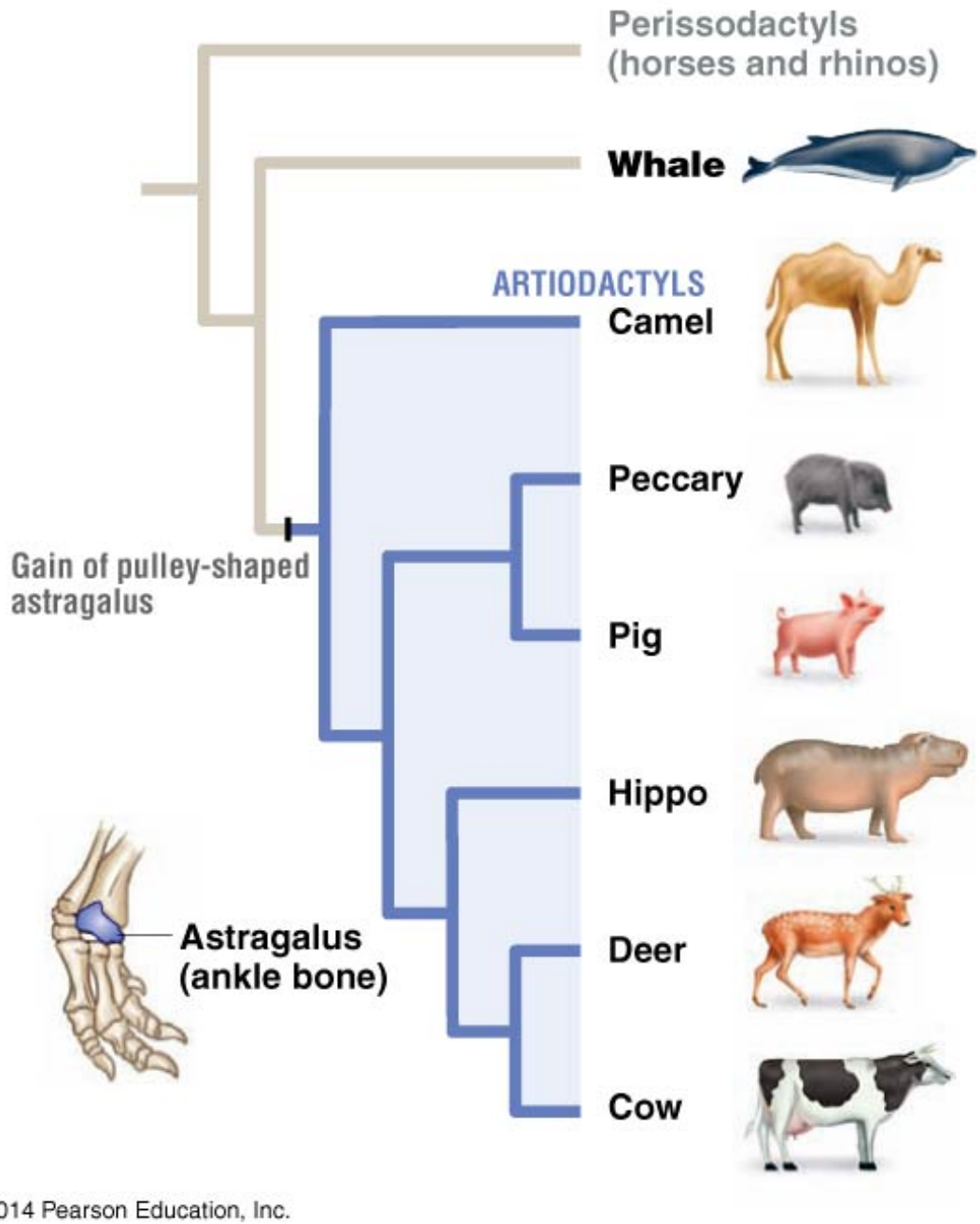

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(b) Data set 2 (DNA sequences):
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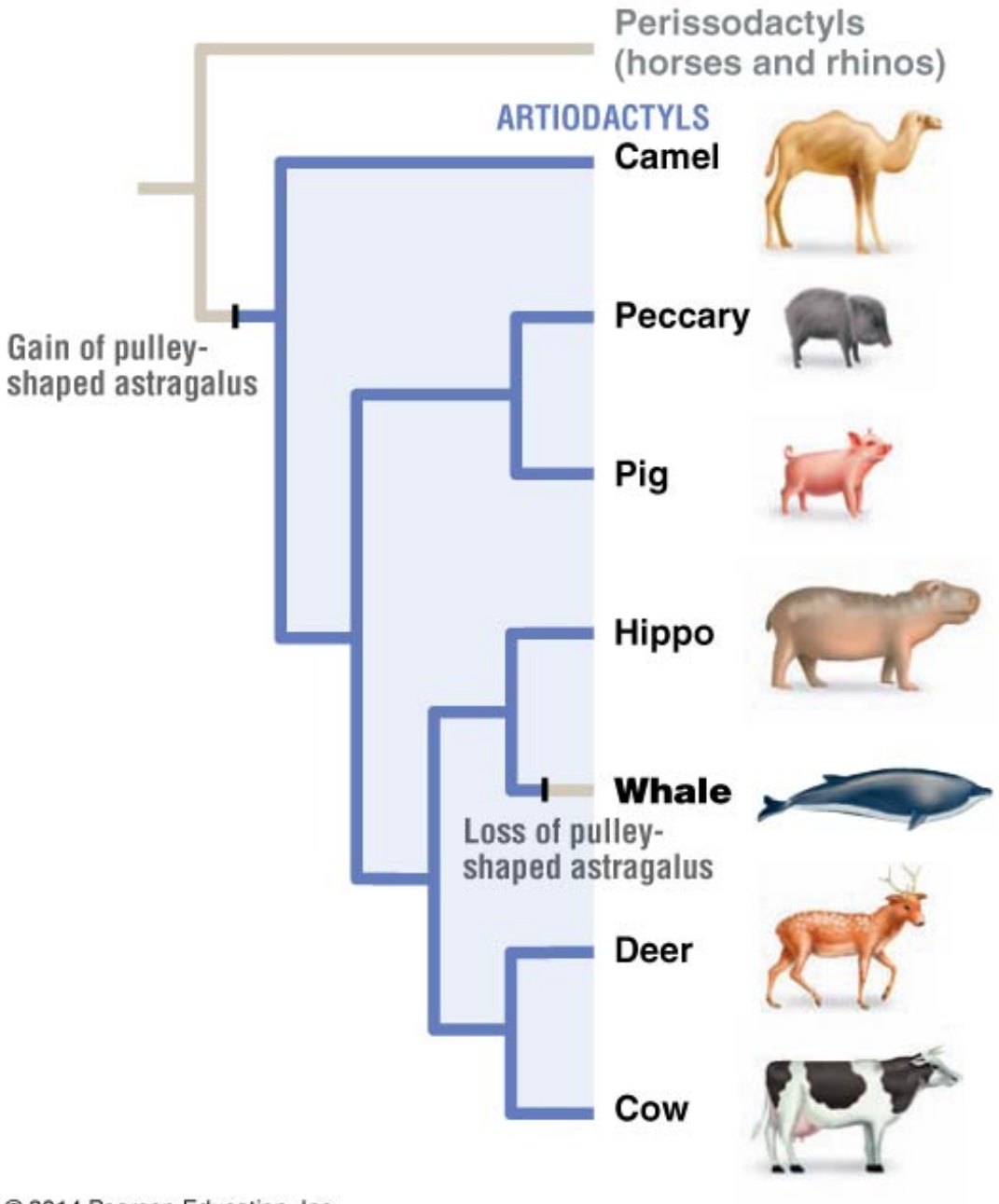

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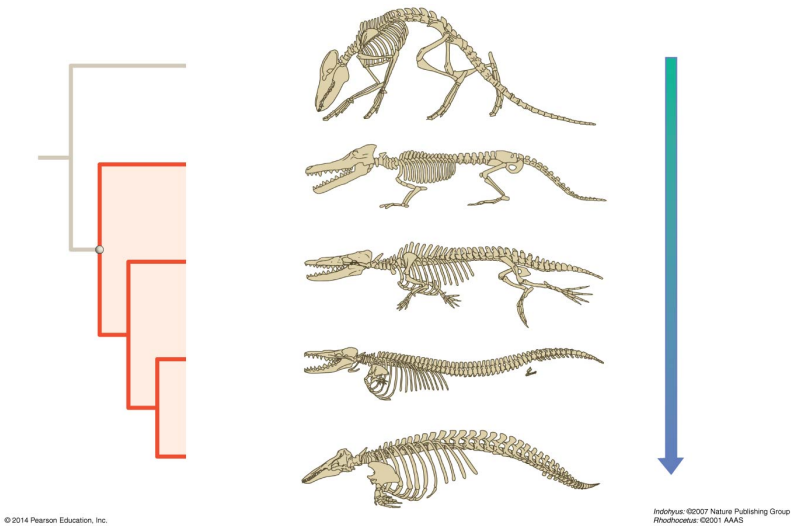

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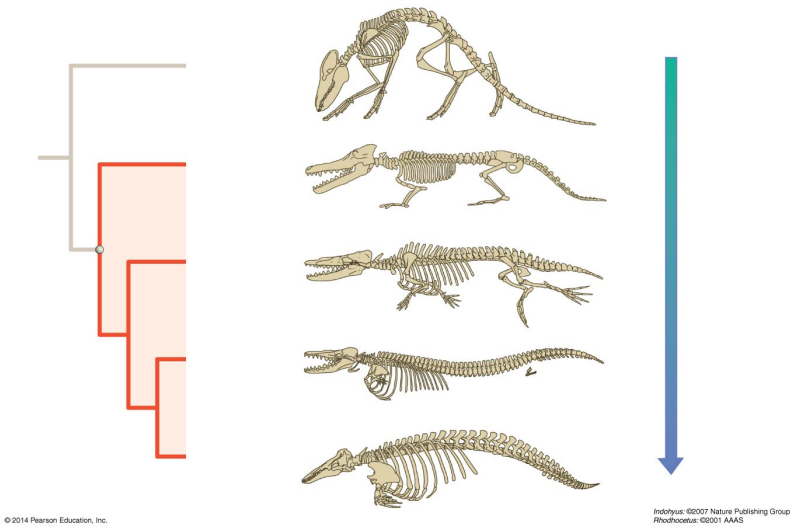

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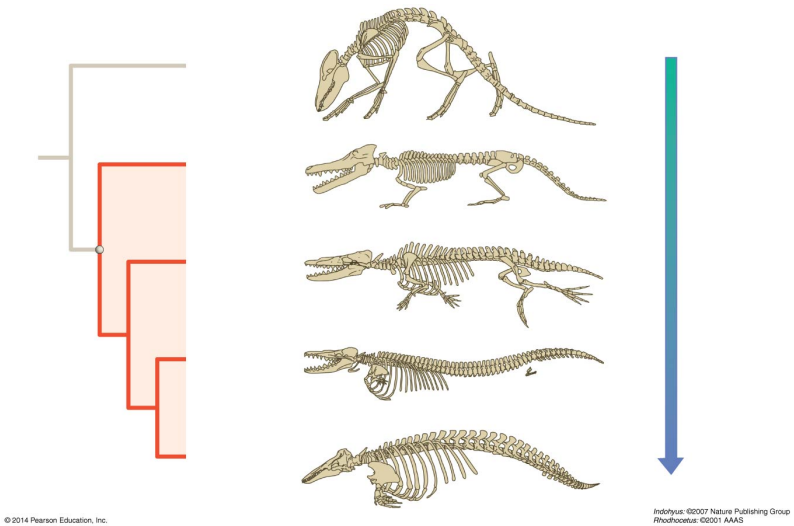

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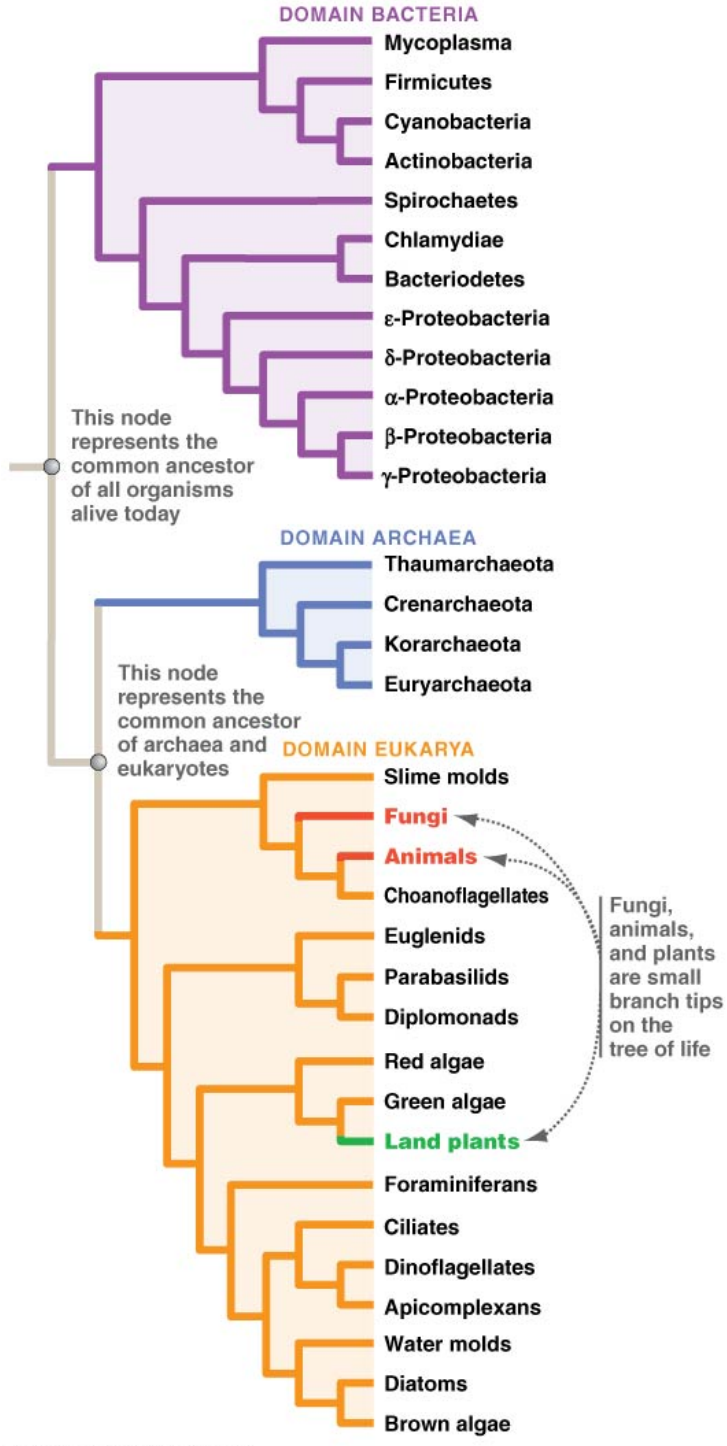

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(a) Intact fossil (pollen)

(b) Compression fossil (leaf)

(c) Cast fossil (bark)

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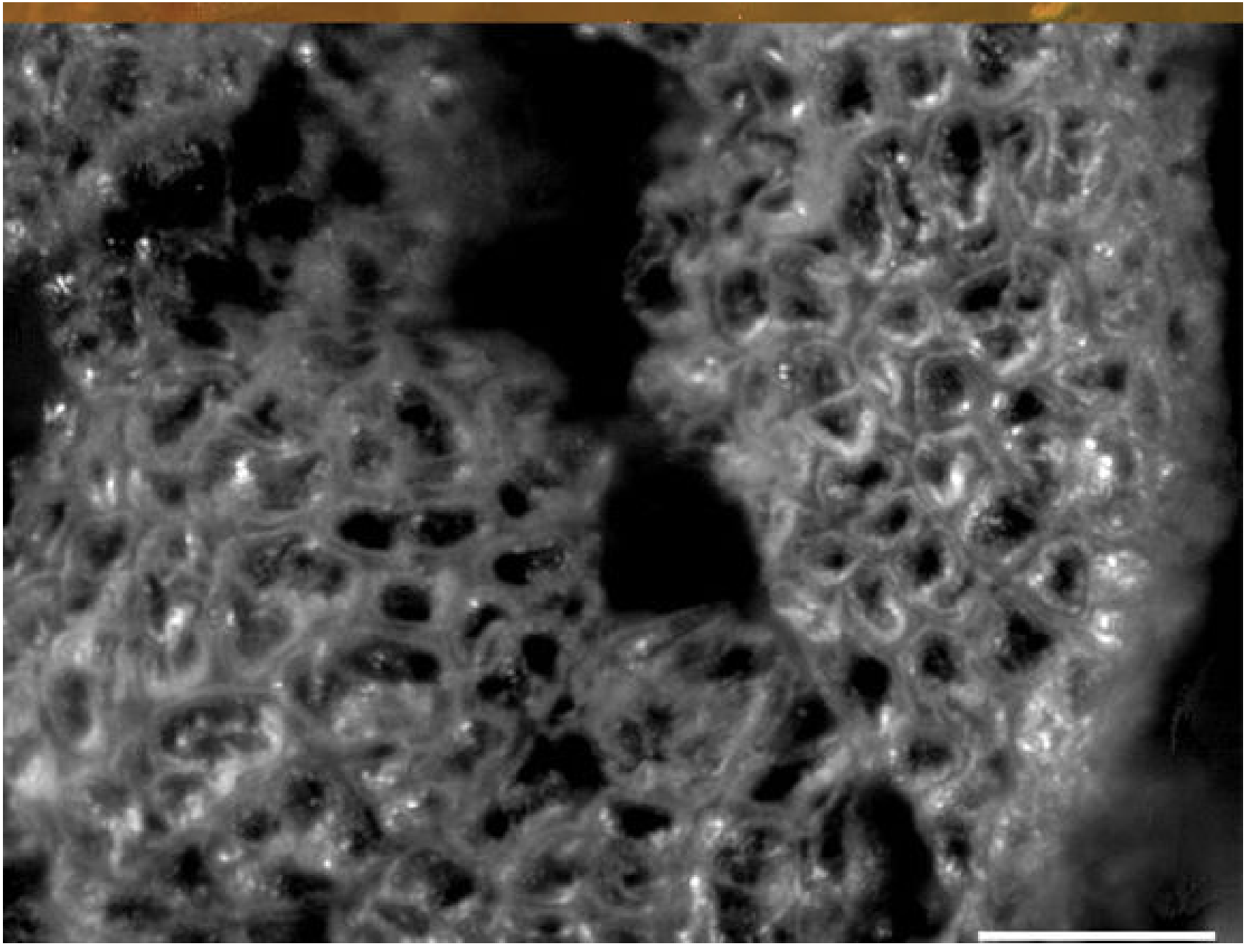

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Colonization

- In many different cases, a new kind of organism has colonized an area, and diversified rapidly
- This is an opportunity for studying how evolution can go:
  - What is the same, and what is different, between similar cases?
  - Finches
  - Silverswords in Hawaii
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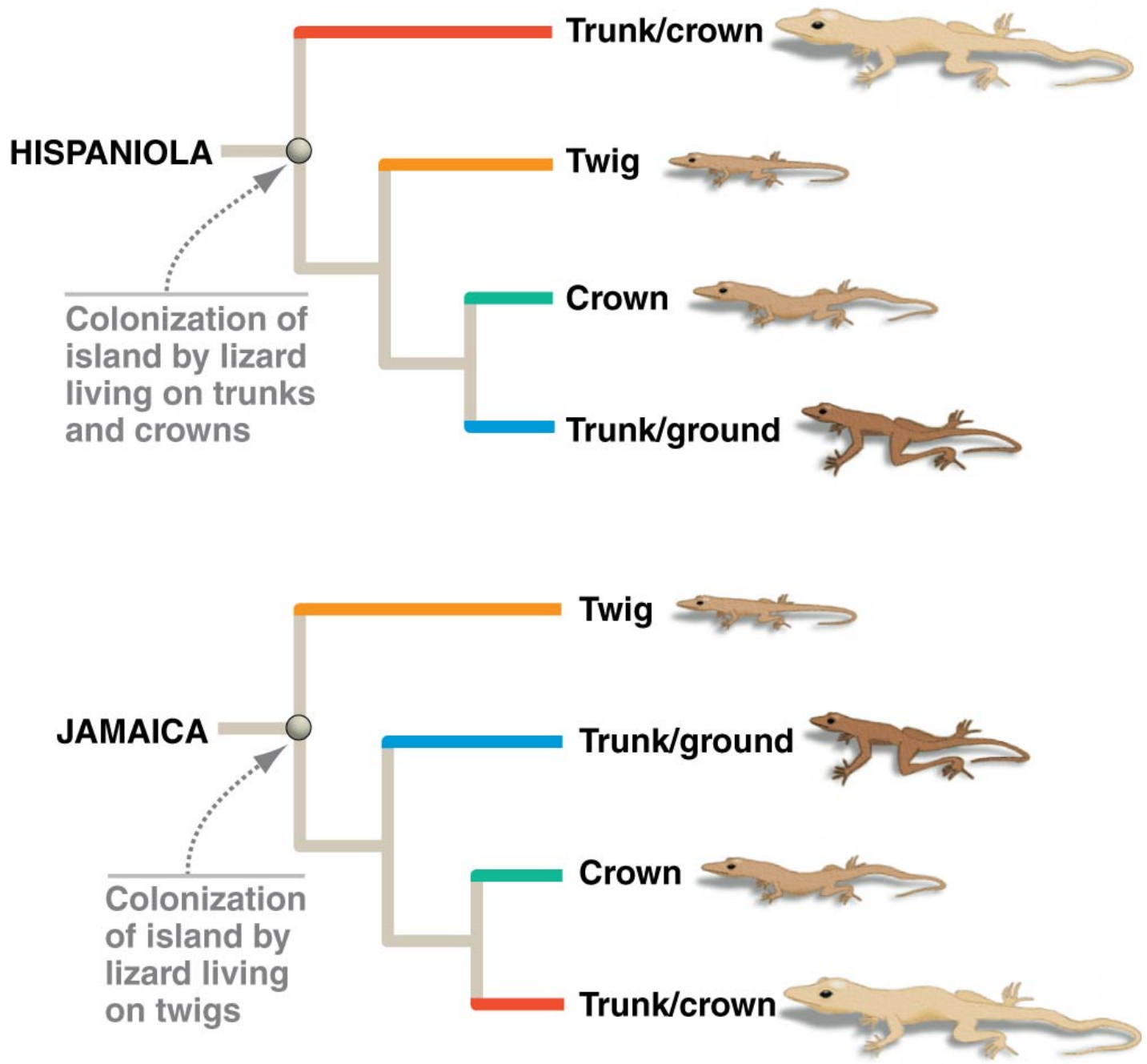
(c) The same adaptive radiation of *Anolis* has occurred on different islands, starting from different types of colonists.



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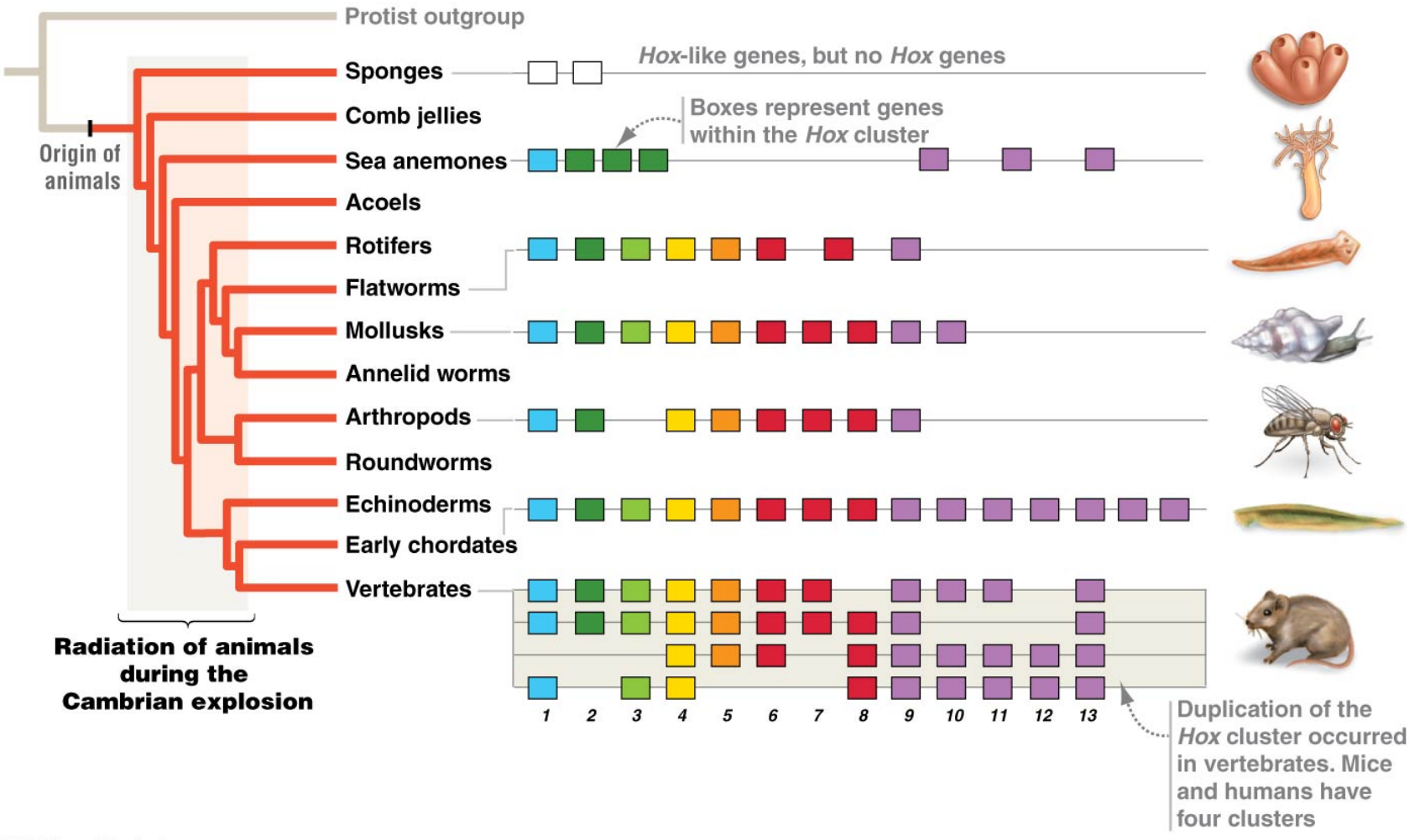

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