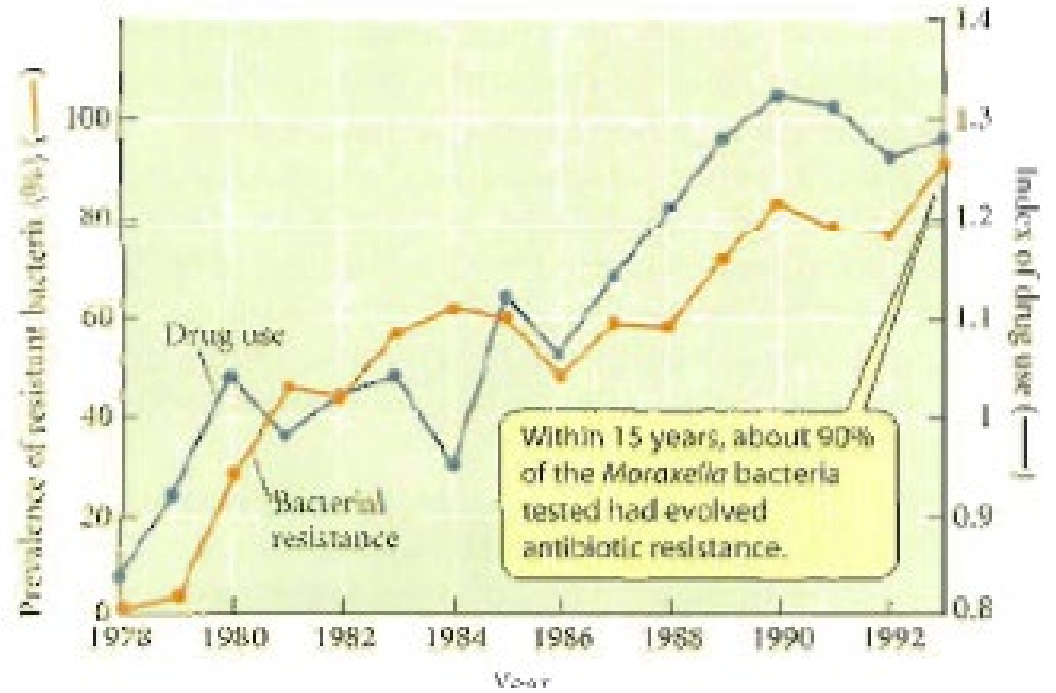
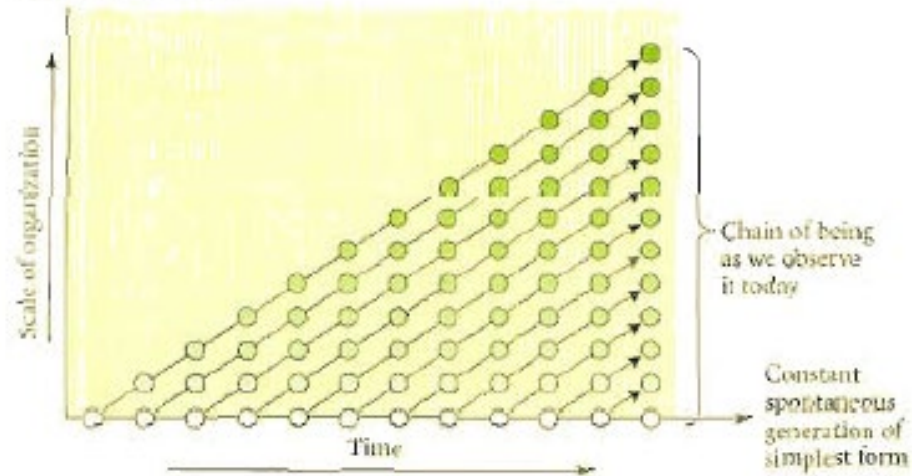


1. Evrimsel Biyoloji

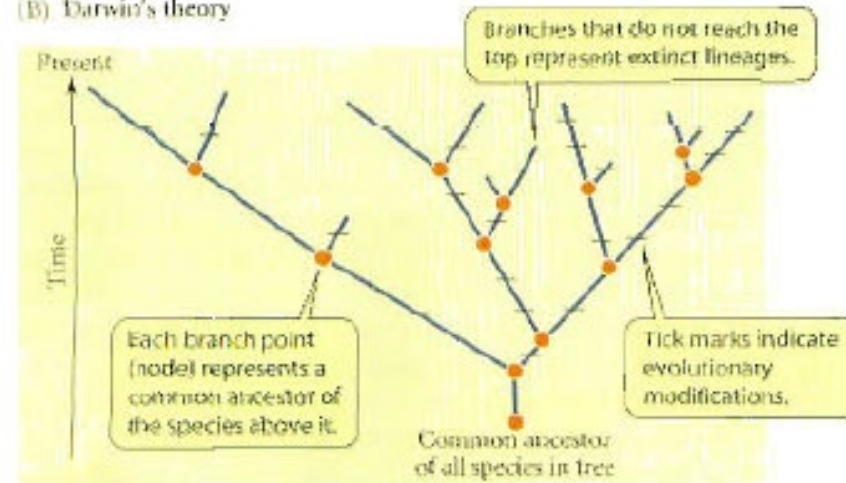




(A) Lamarck's theory



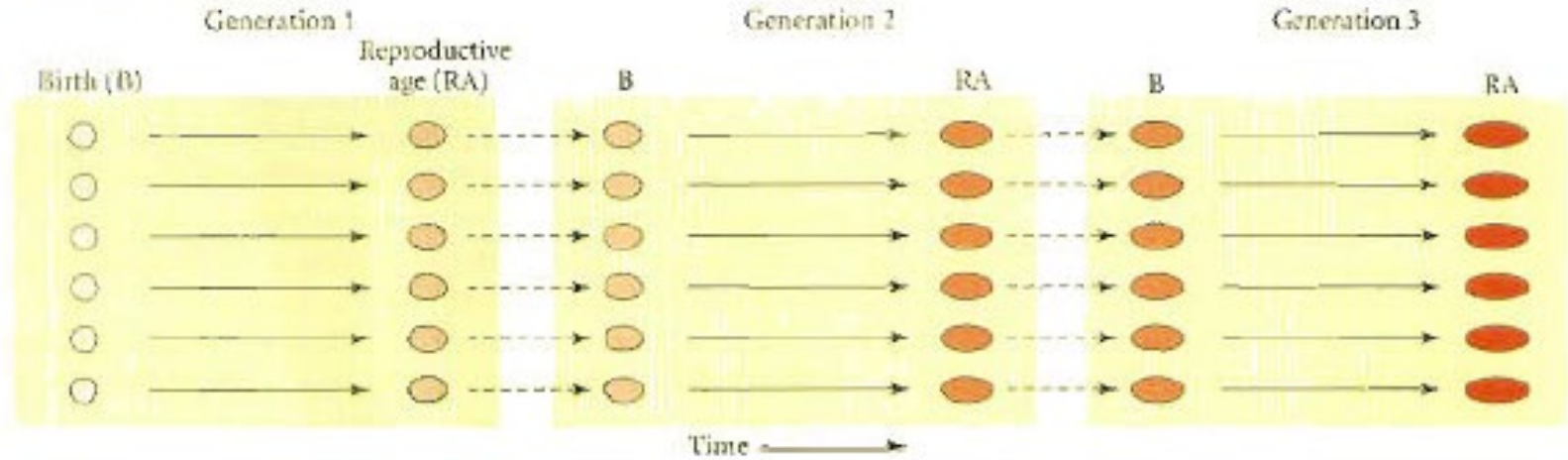
(B) Darwin's theory



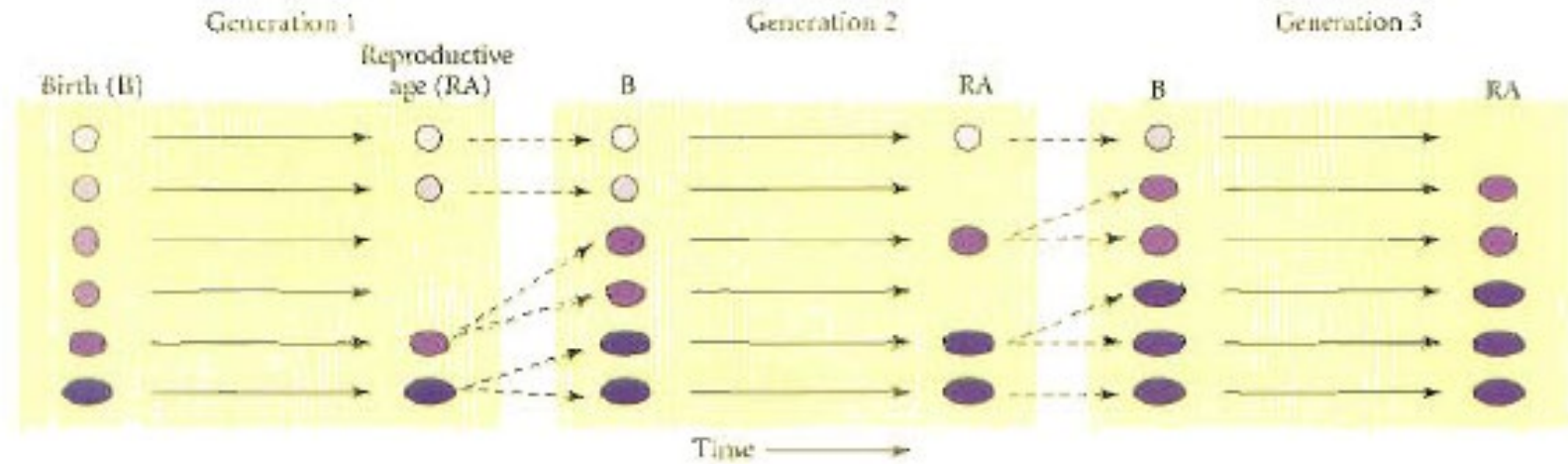


CHARLES ROBERT DARWIN

Transformational evolution



Variational evolution



ALFRED RUSSEL WALLACE



RONALD A. FISHER



J. B. S. HALDANE



ERNST MAYR



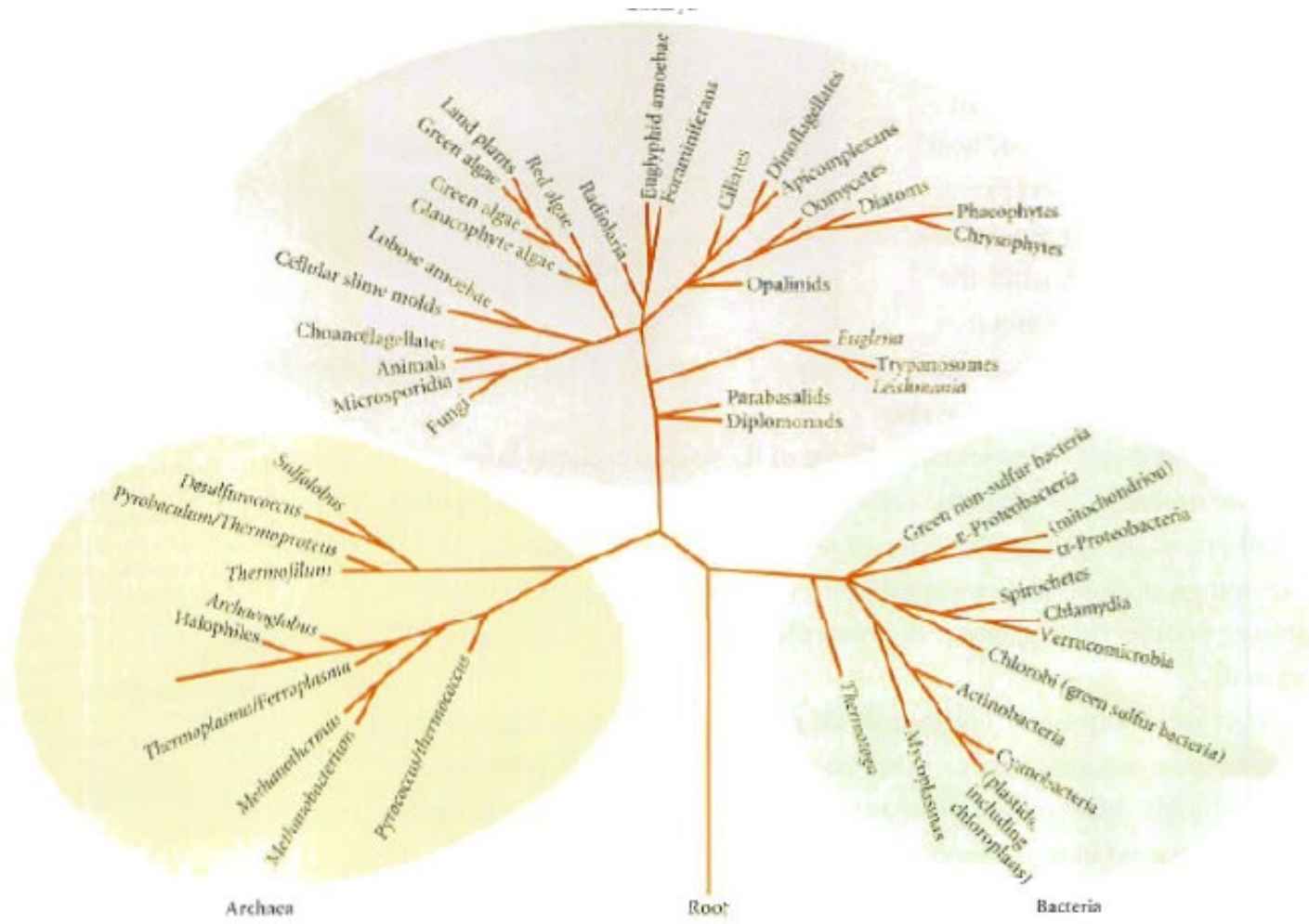
G. LEDYARD STEBBINS, GEORGE GAYLORD SIMPSON, AND THEODOSIUS DOBZHANSKY

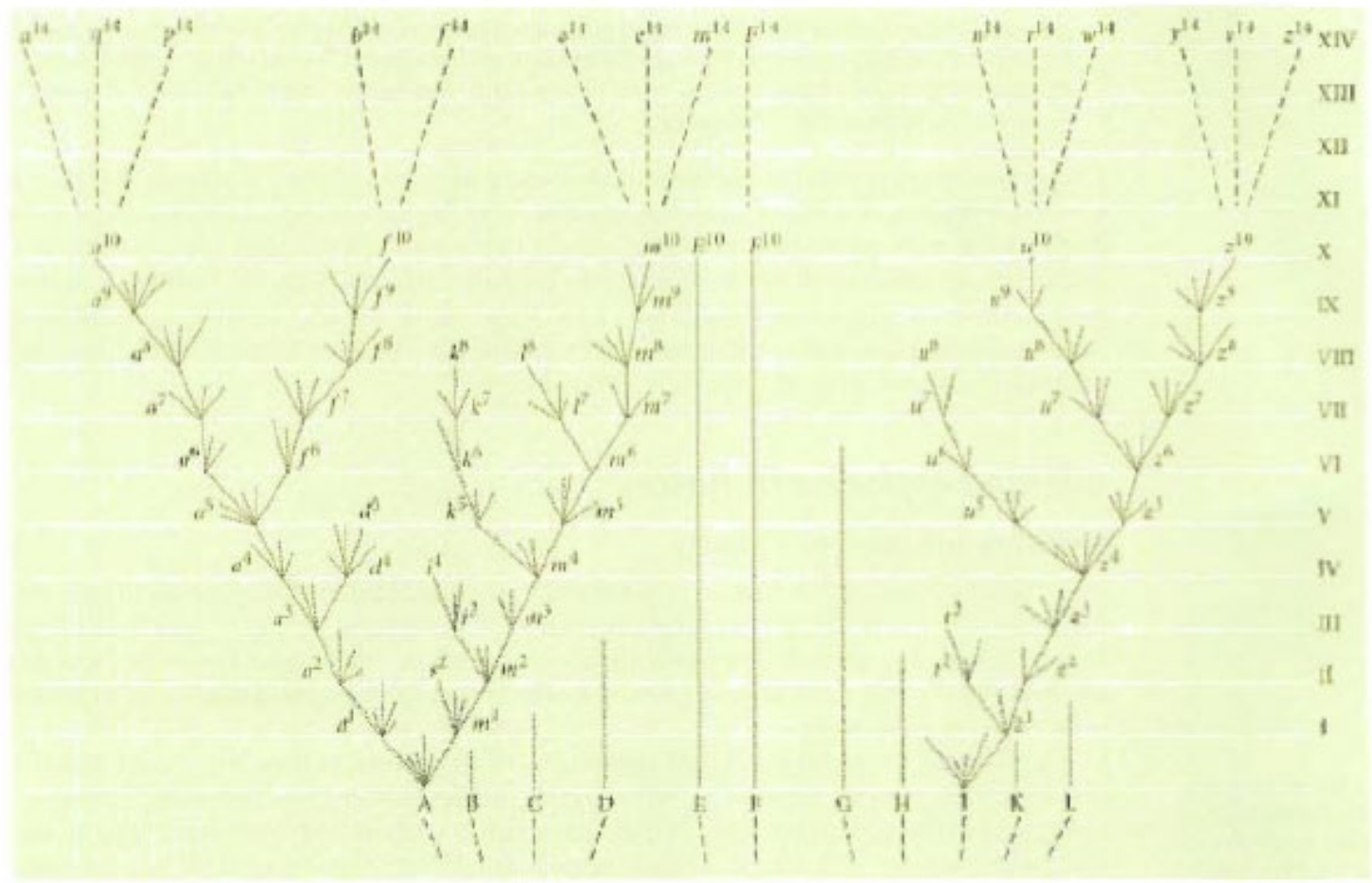


MOTOO KIMURA



SEWALL WRIGHT

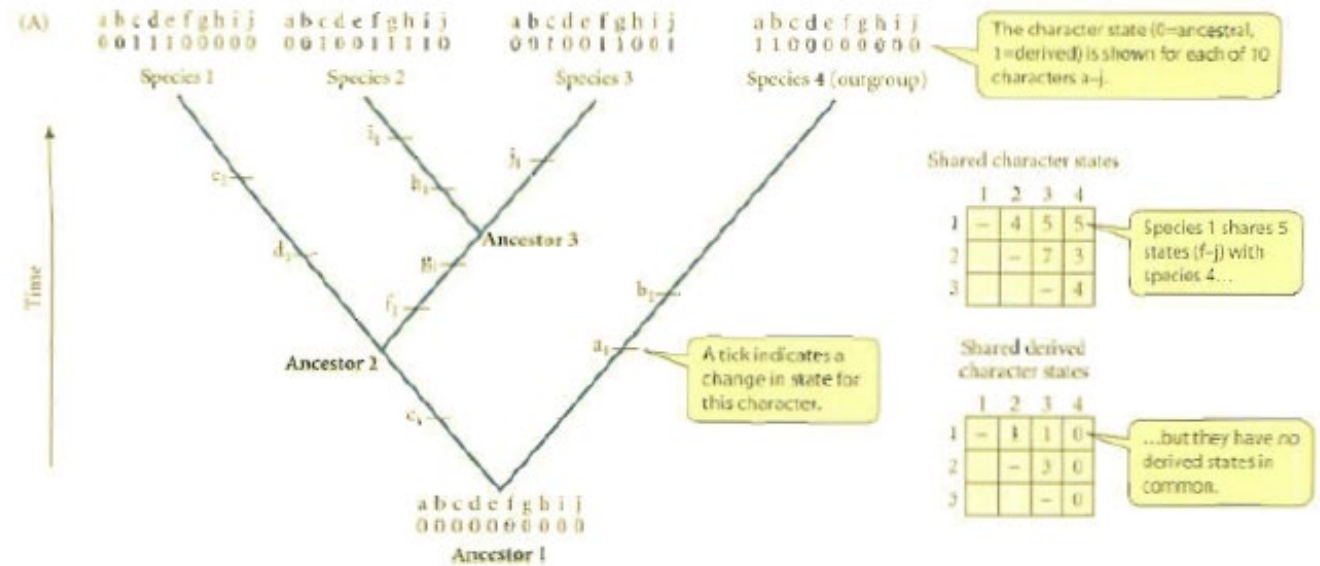


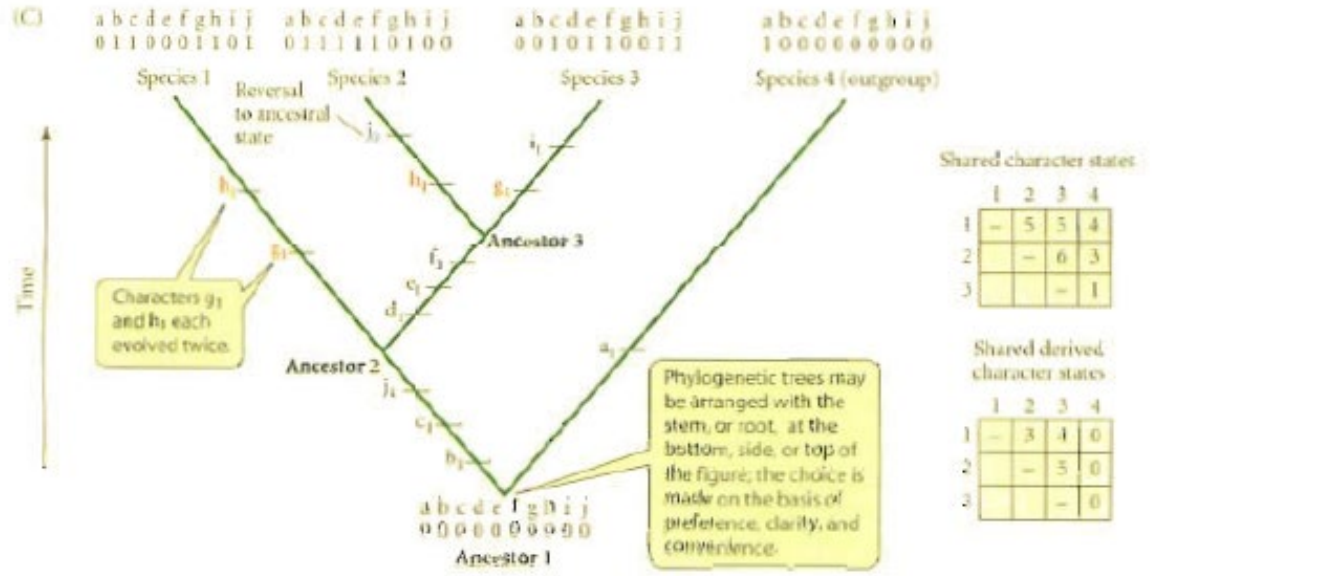
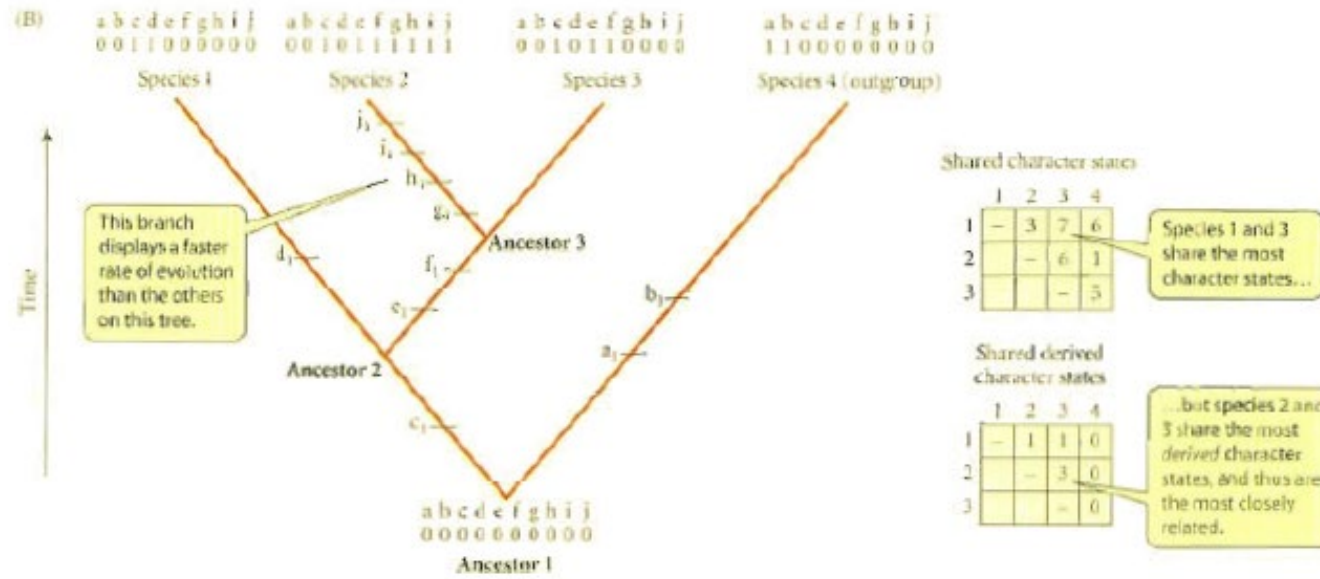


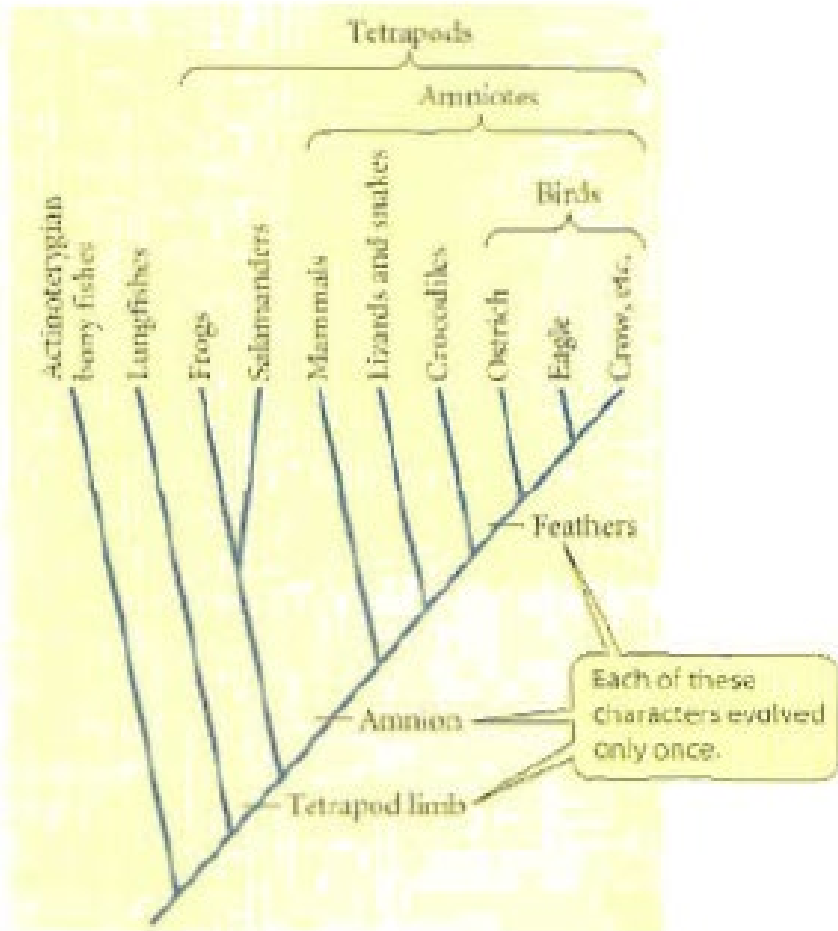
(A)



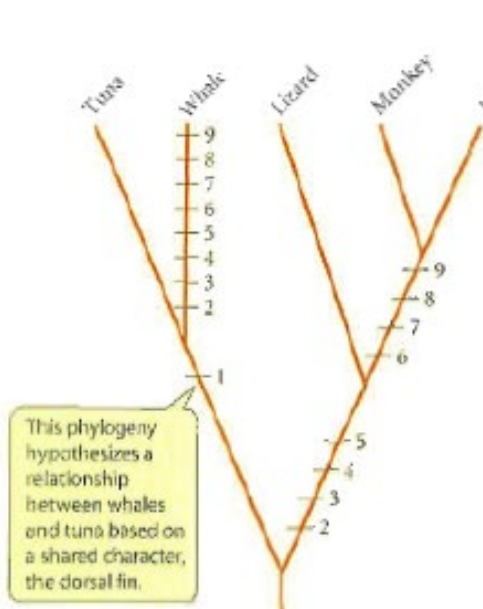
(B)



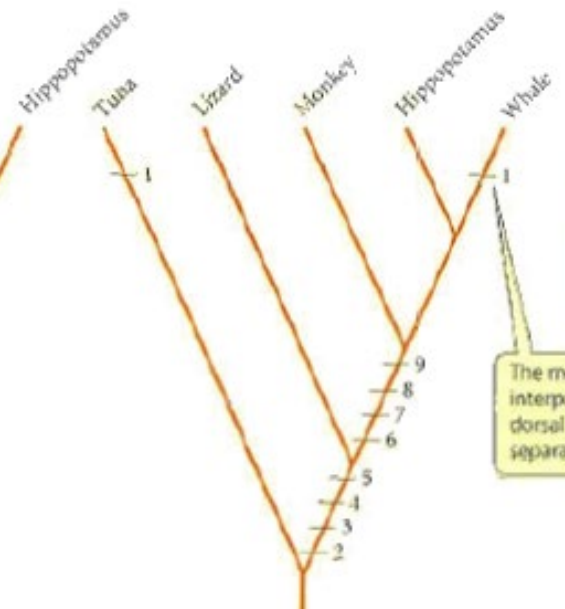




(A) Hypothetical phylogeny



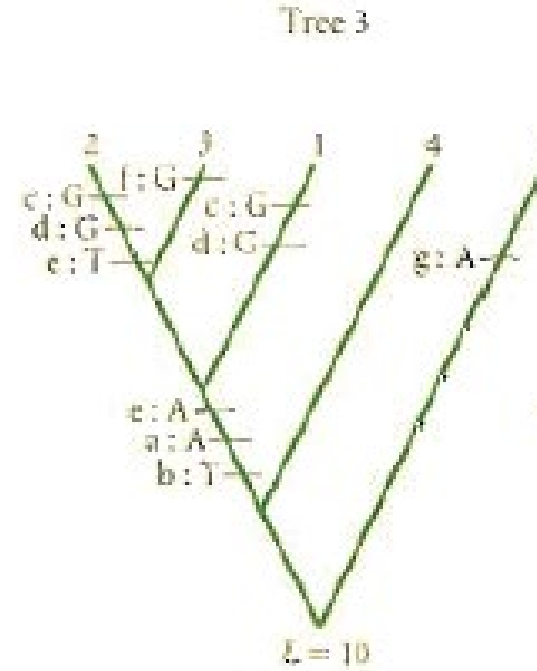
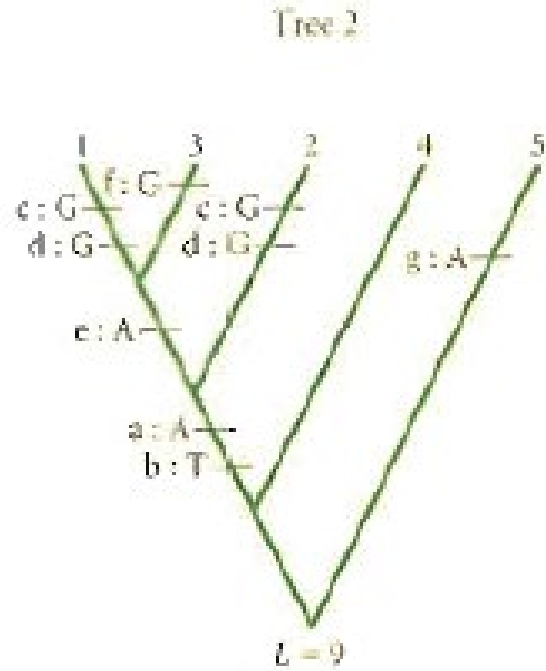
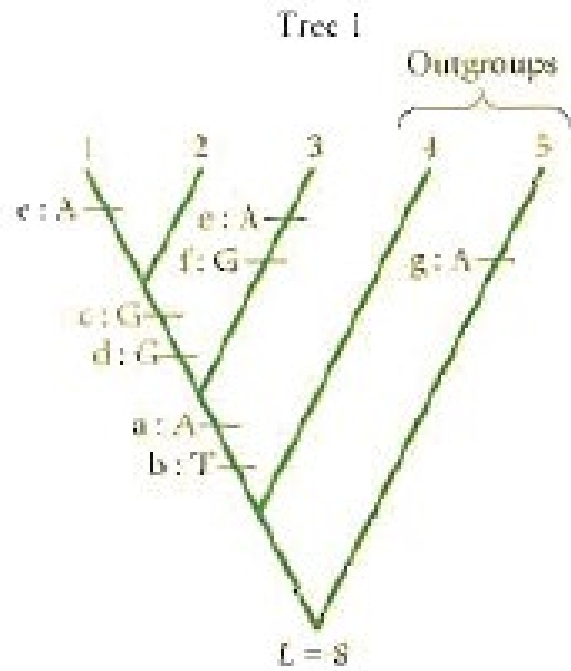
(B) Accepted phylogeny



Character key:

- 1. Dorsal fin
 - 2. Pectoral girdle
 - 3. Limb skeleton
 - 4. Lungs
 - 5. Cervical and thoracic vertebrae
 - 6. Single aortic arch
 - 7. Dentary jawbone
 - 8. Milk
 - 9. 4-Chambered heart
- Tetrapod synapomorphies (characters 1-5)
- Mammalian synapomorphies (characters 6-9)

The more parsimonious interpretation is that the dorsal fin of whales evolved separately from that of tuna.



Species	Character (nucleotide base at given site)						
	a	b	c	d	e	f	g
1	A	T	G	G	A	C	T
2	A	T	G	G	T	C	T
3	A	T	T	C	A	G	T
4	C	G	T	C	T	C	T
5	C	G	T	C	T	C	A