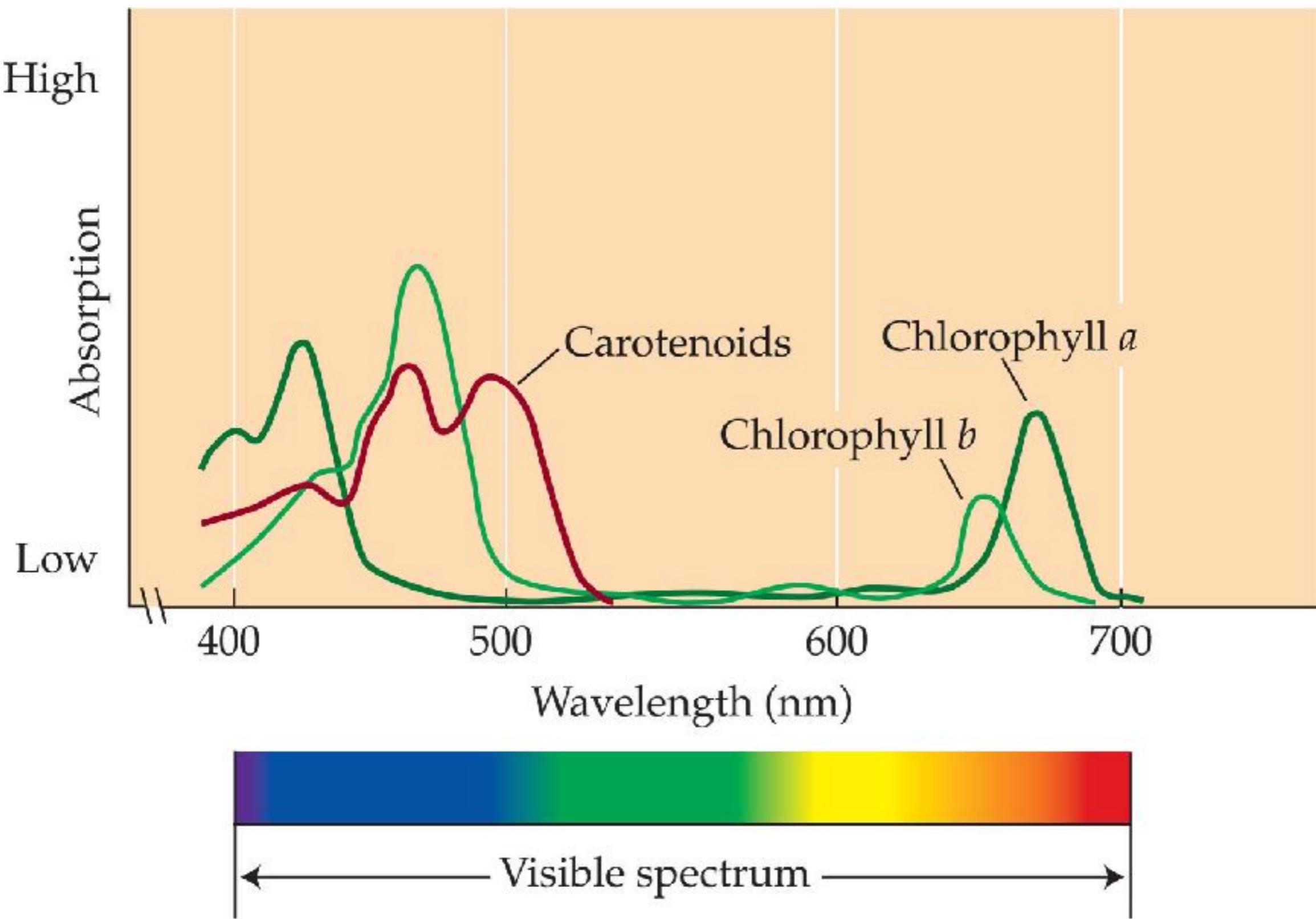
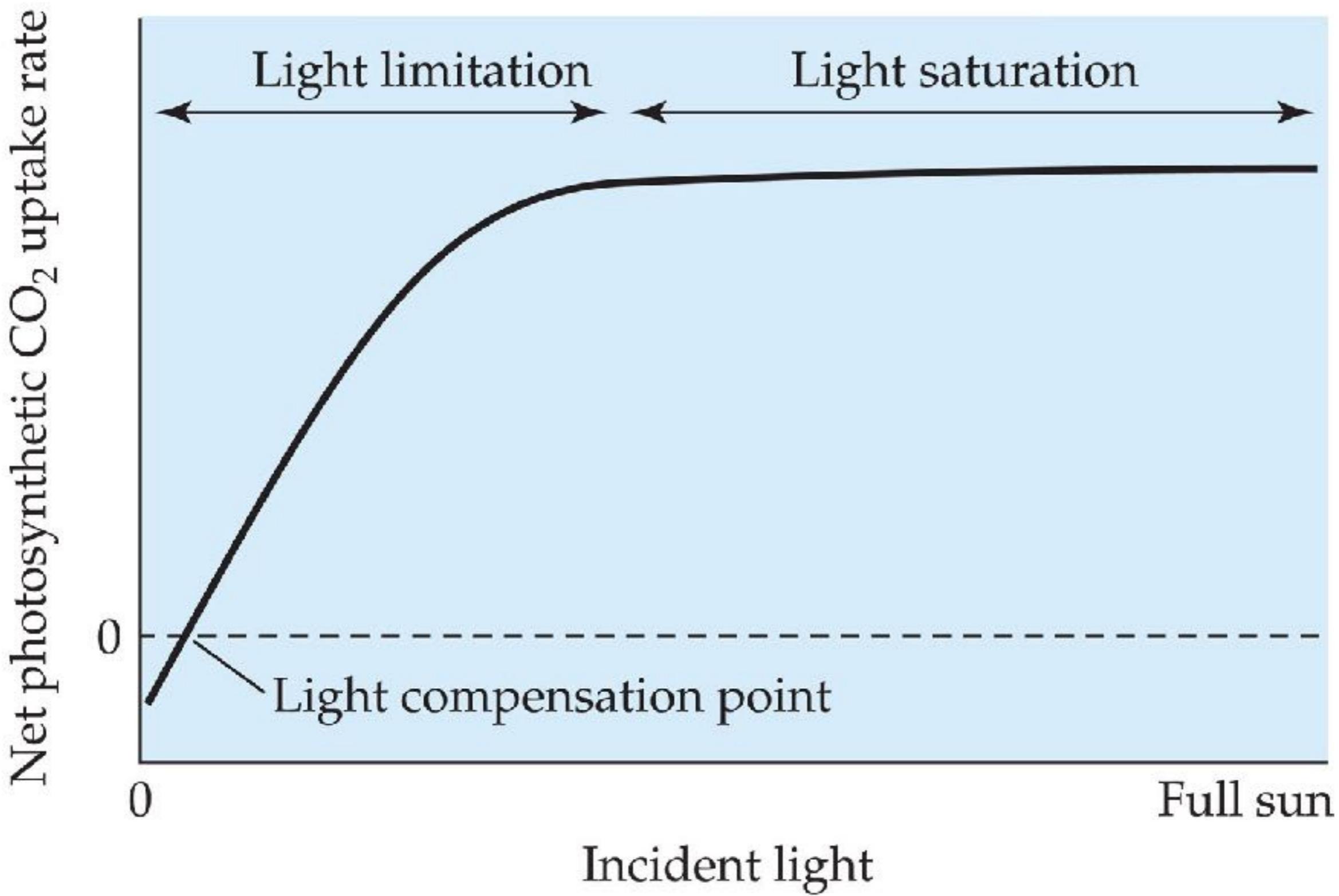


Syllabus change

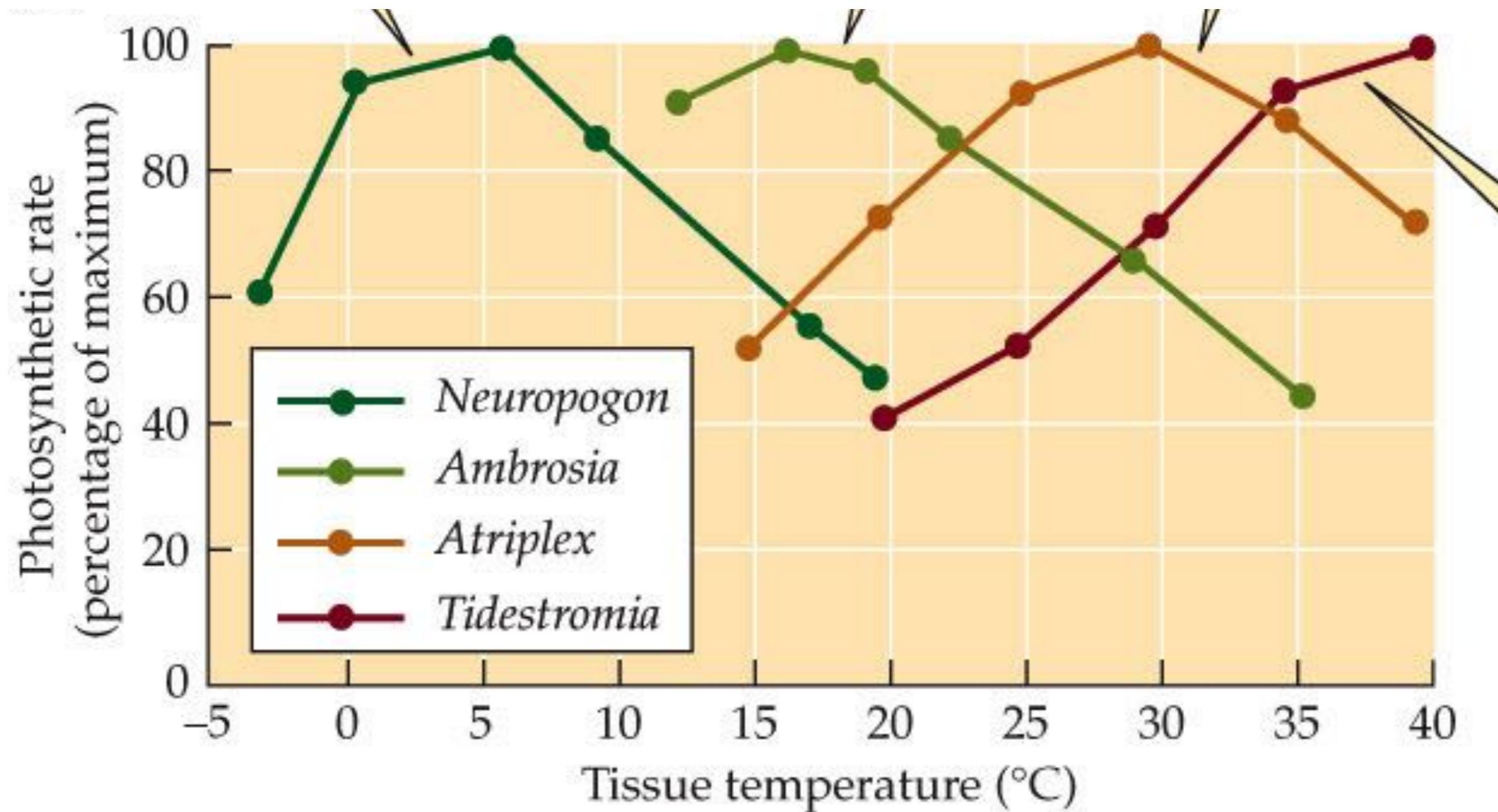
Office Hours (SE1-288): M 2-3, W 9-10

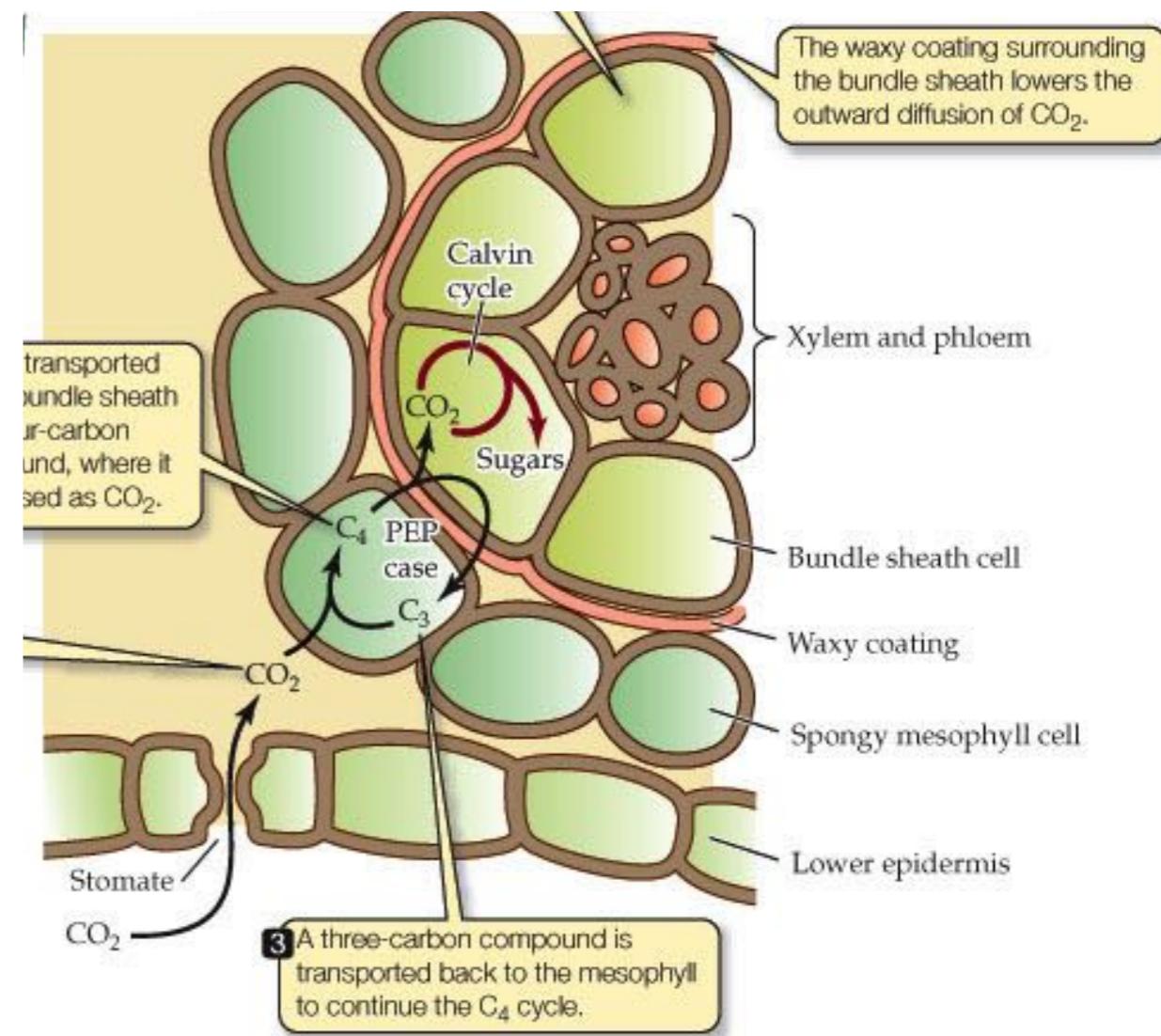
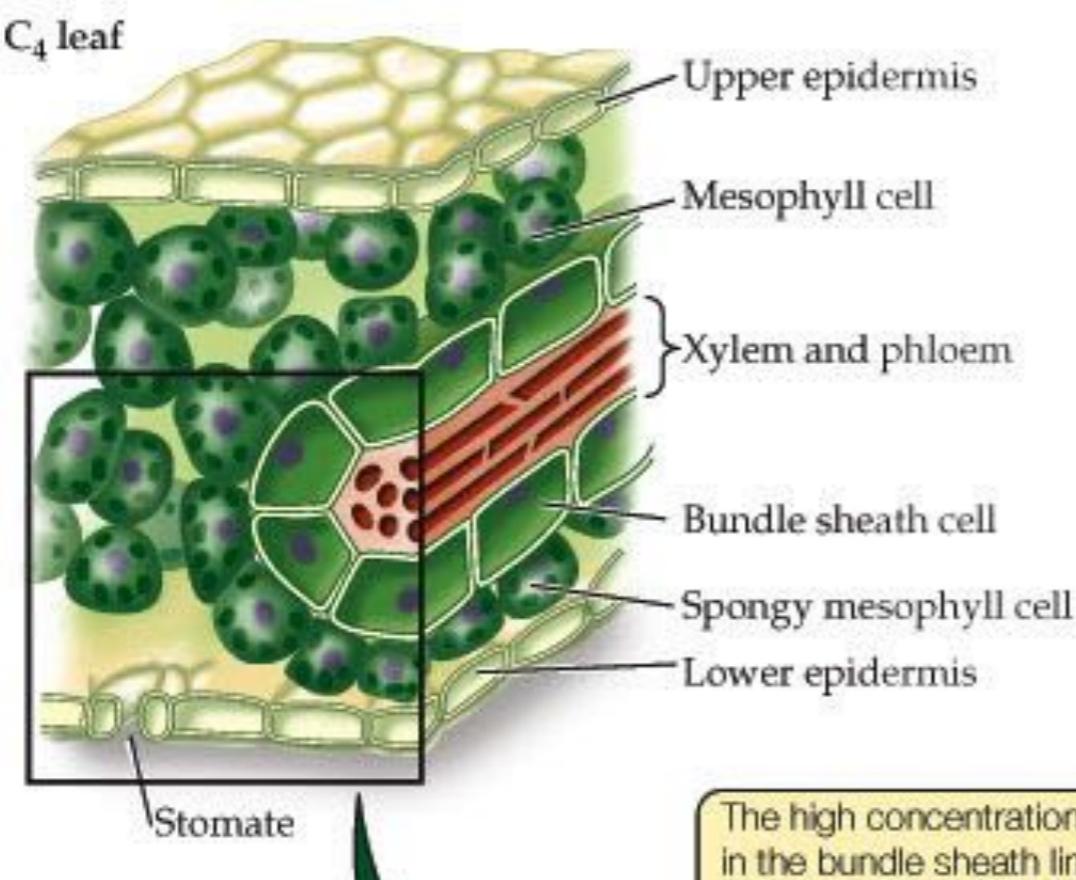
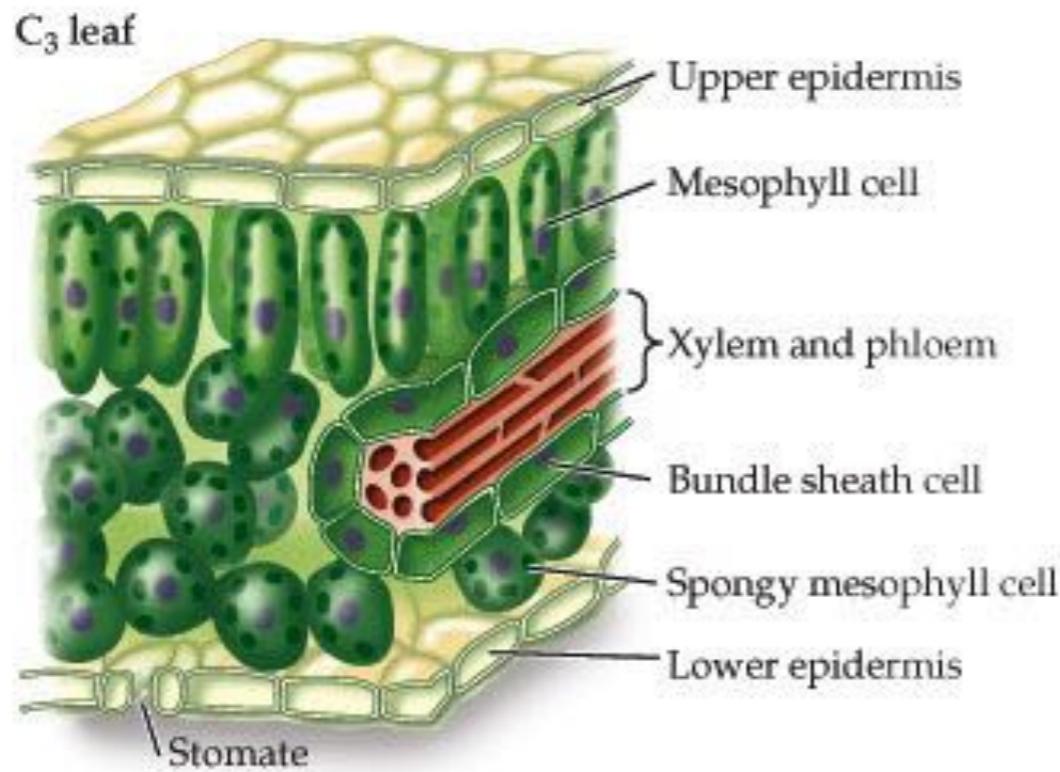


ECOLOGY 3e, Figure 5.6
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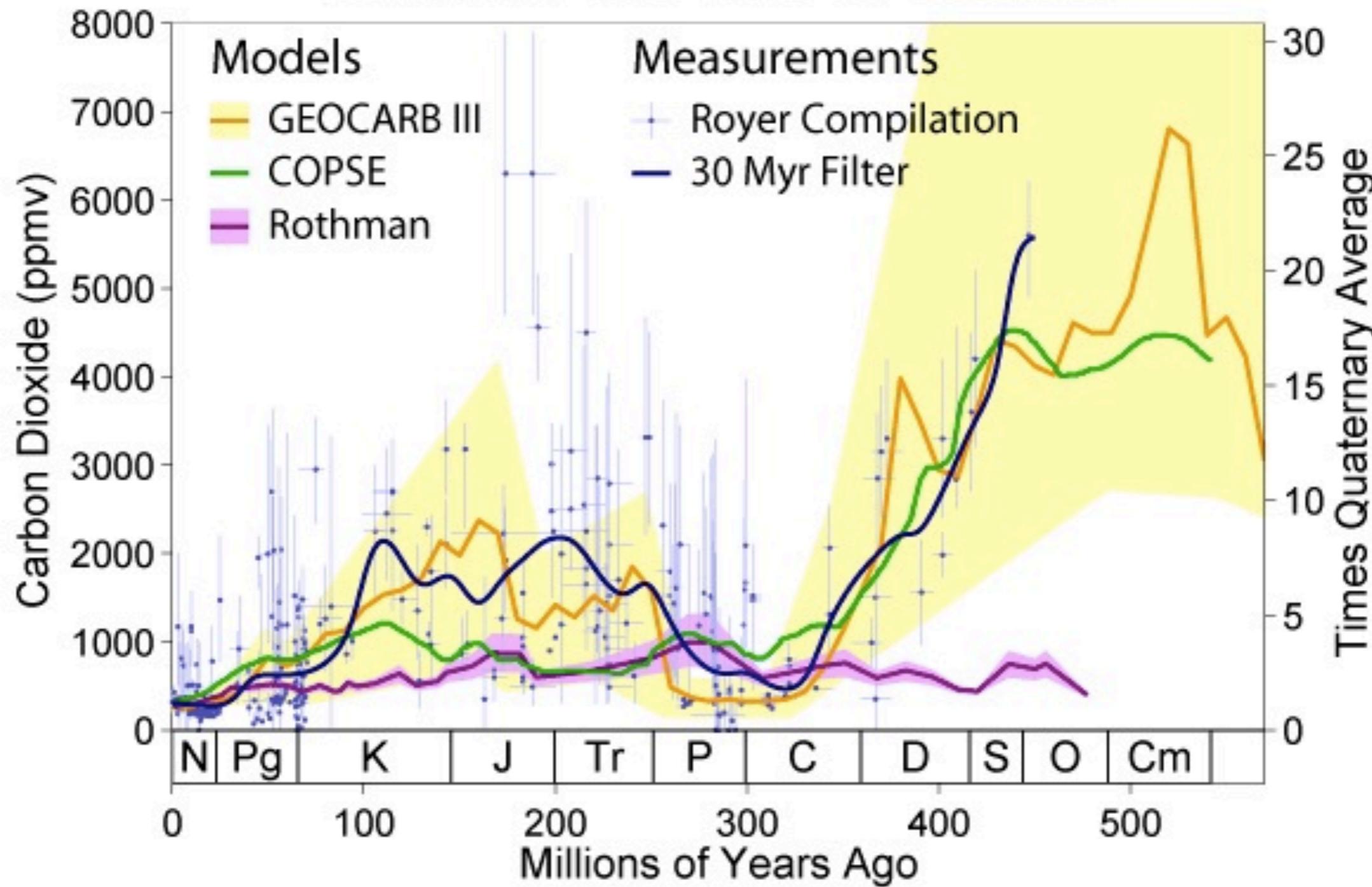


ECOLOGY 3e, Figure 5.7 (Part 1)
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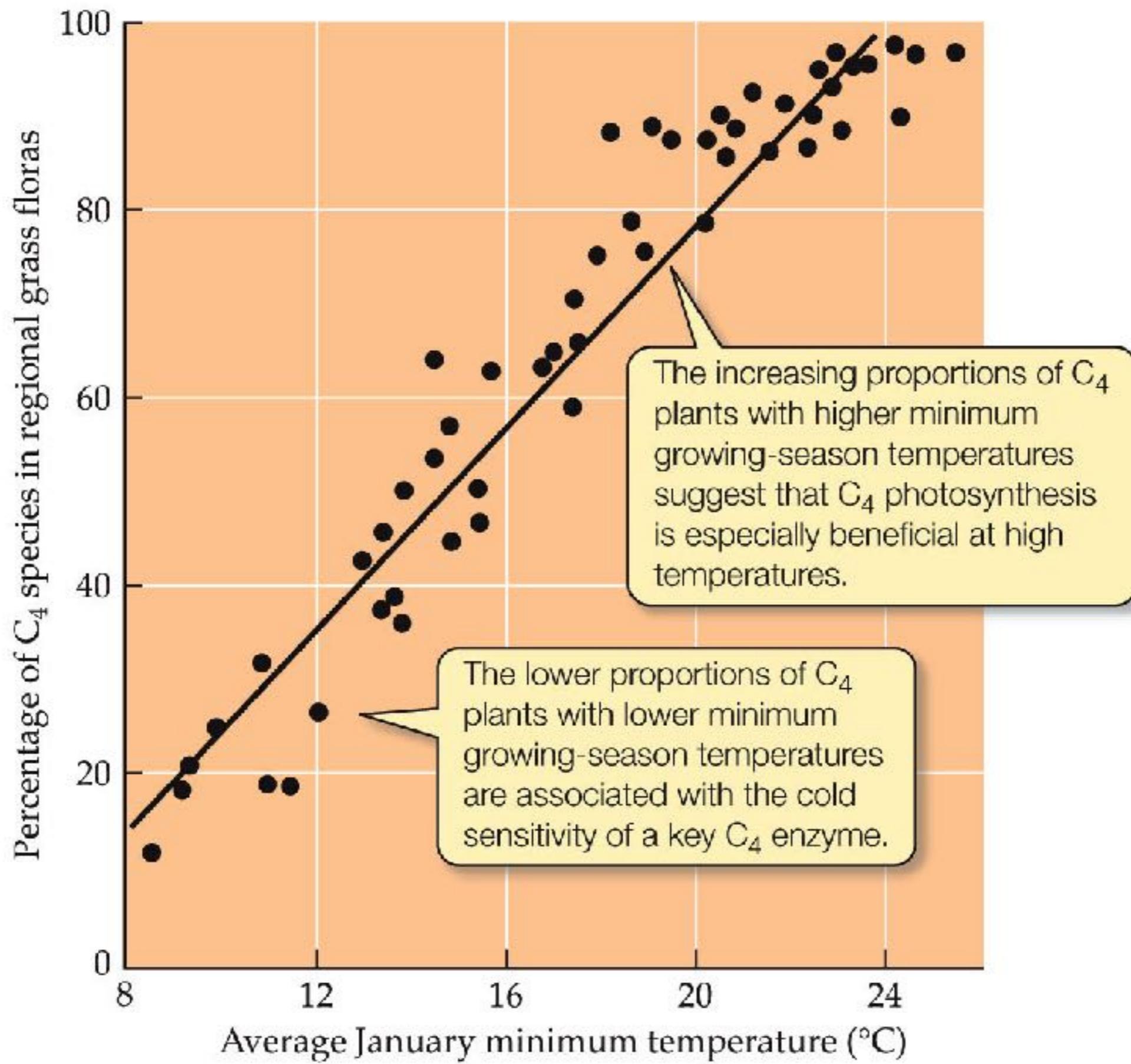


Phanerozoic Carbon Dioxide



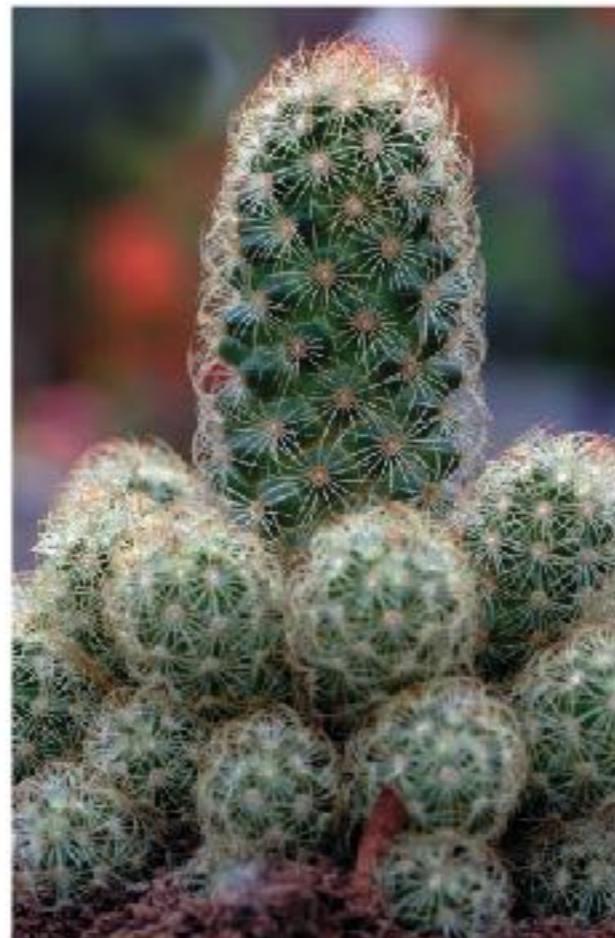
C4 photosynthesis
becomes abundant

C3 photosynthesis
(way back)





Crassula tabularis, a stem succulent plant native to the desert of Namibia

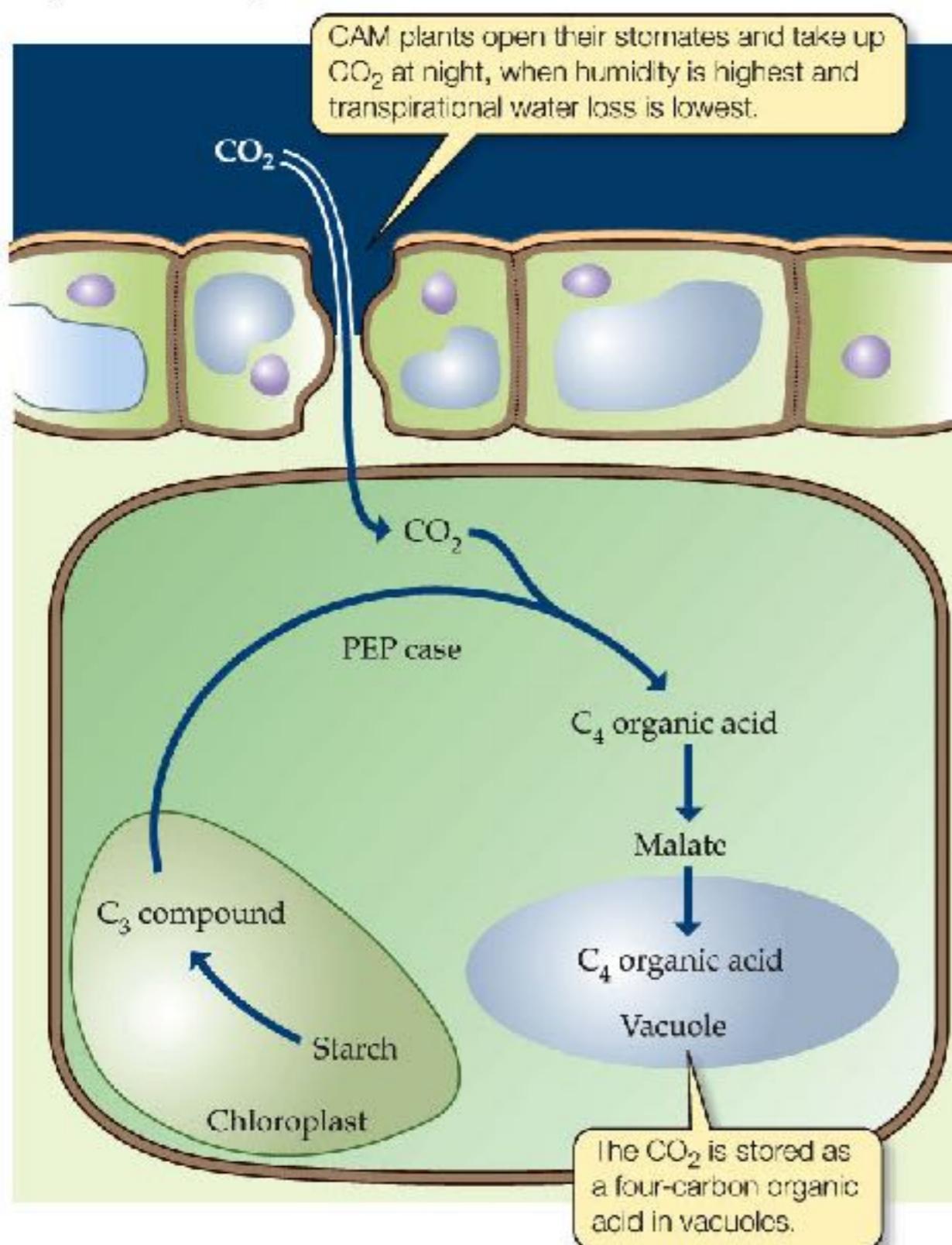


Golden star cactus
(*Mammillaria elongata*),
native to Mexico

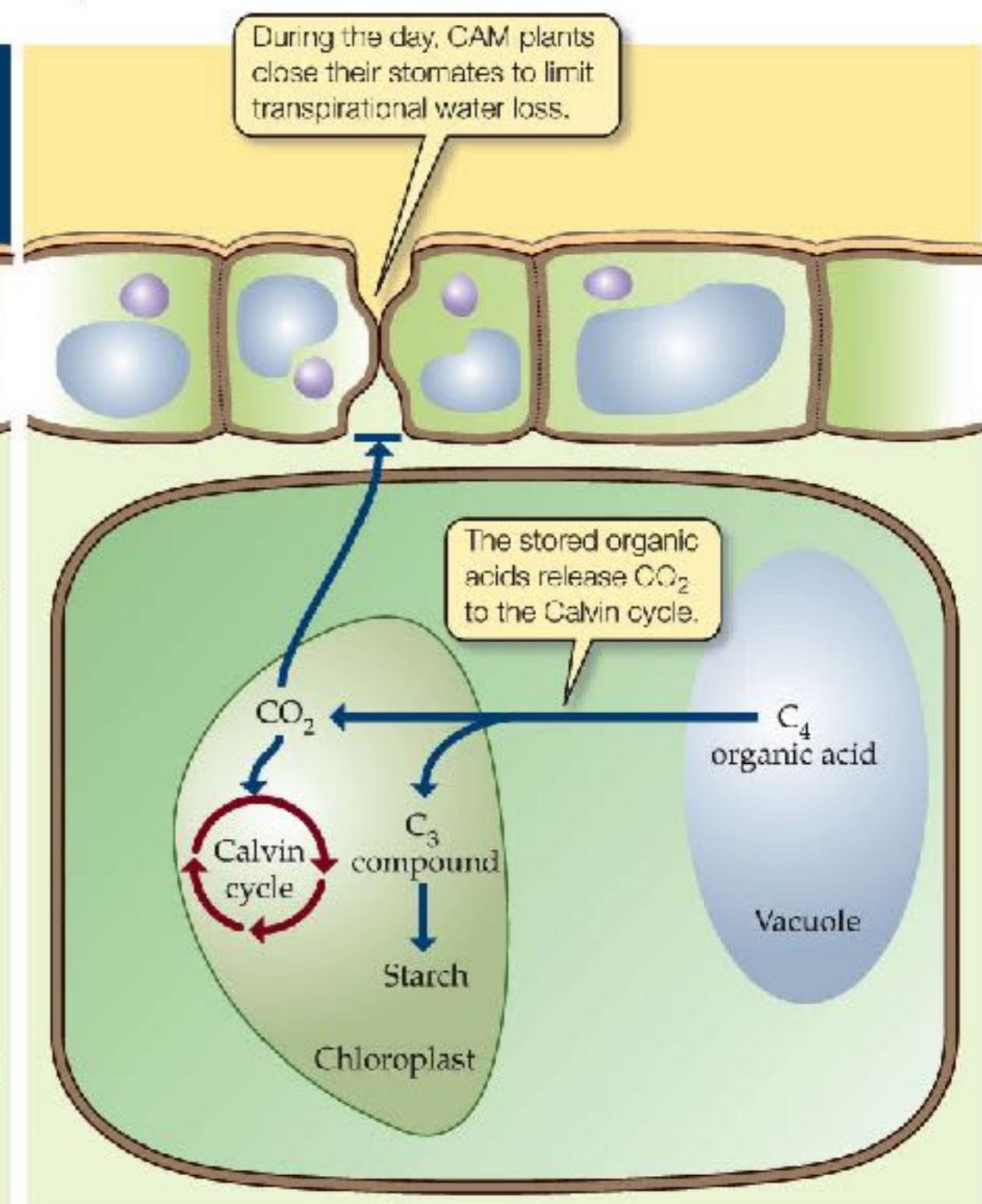


Pineapple (*Anana comosus*),
a bromeliad native to
Central and South
American tropical forests

Night: Stomata opened



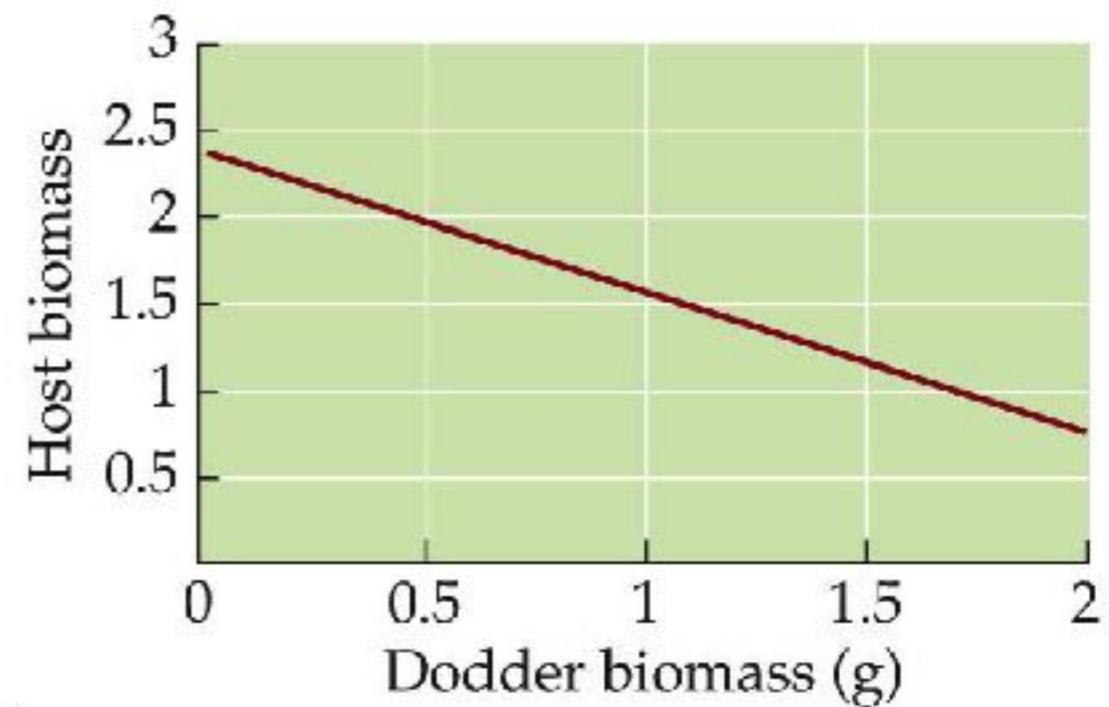
Day: Stomata closed



(A)



(B)



(C)







Black-capped chickadees have short, thin bills suitable for capturing small insects.



Pileated woodpeckers have pointed stout bills for hitting and probing in wood.



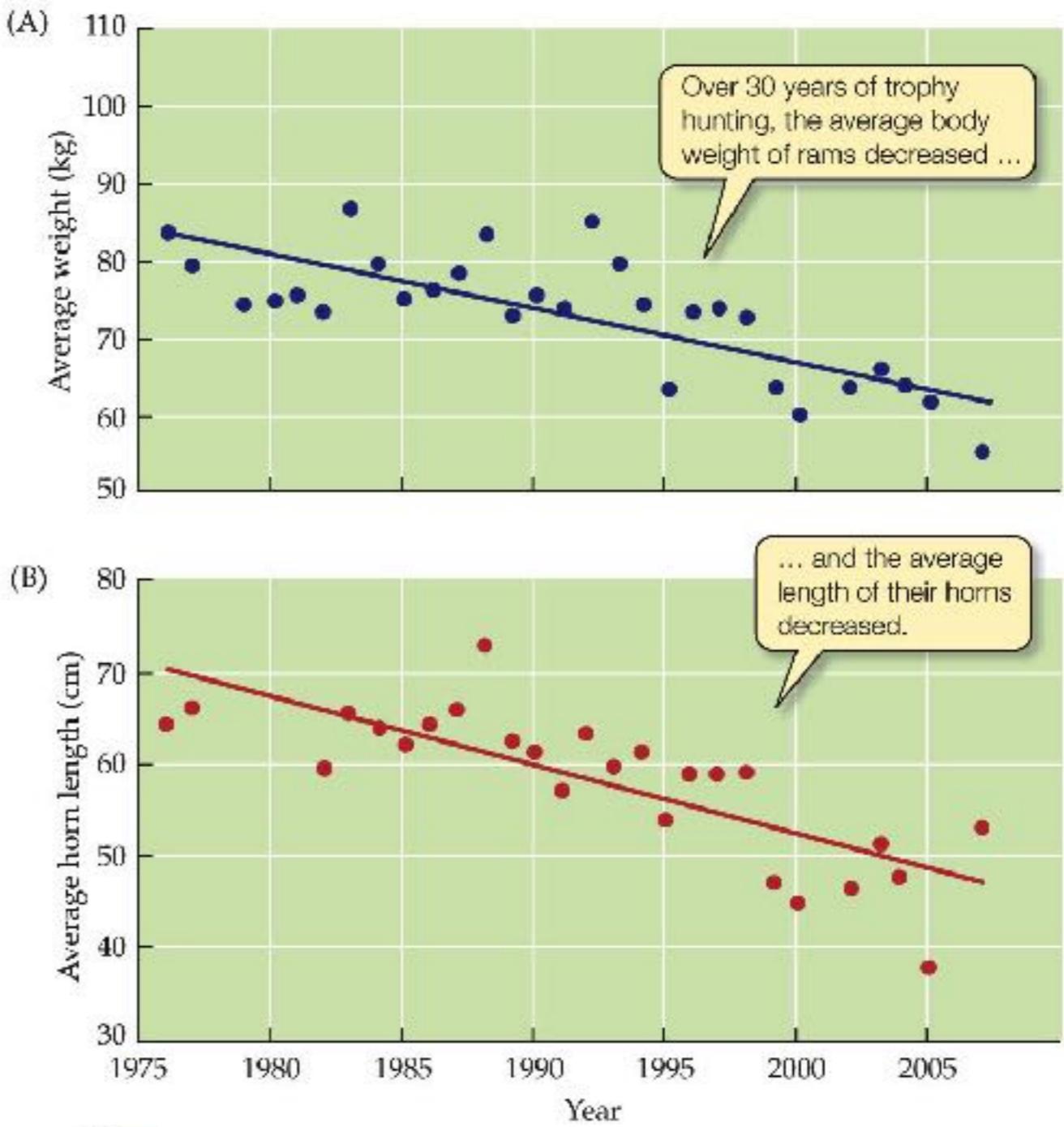
Bald eagle bills are hooked for tearing the flesh of their prey.



Malachite kingfishers have long, sturdy bills suitable for plucking small fish from the water.

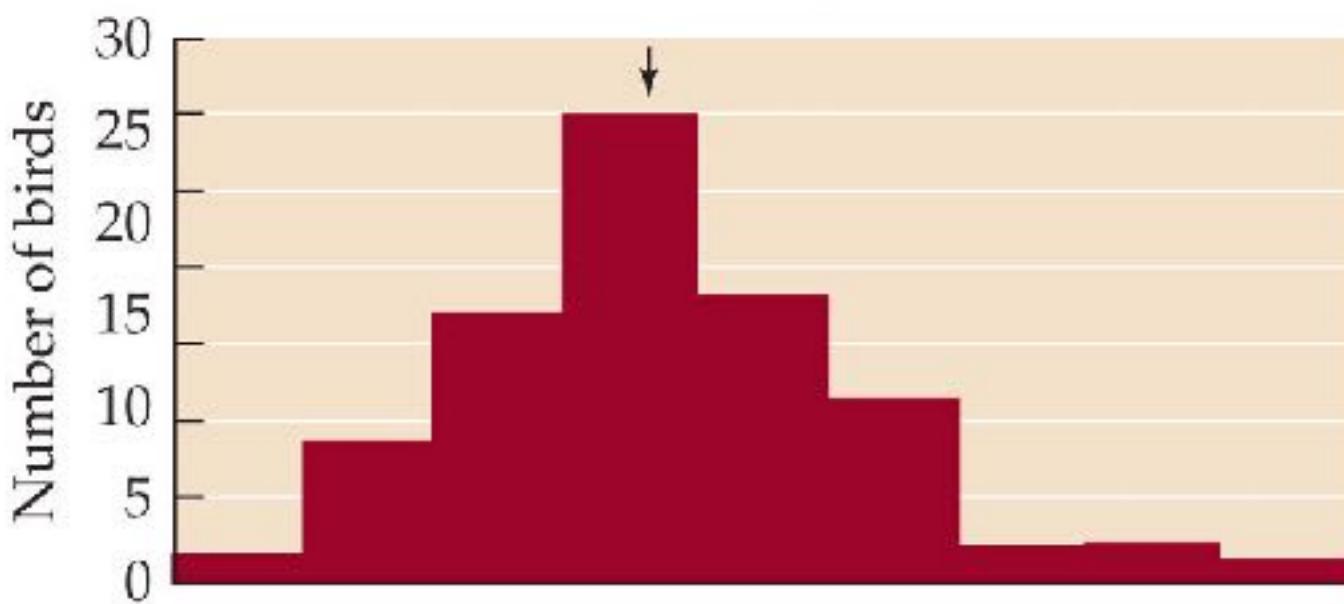


American avocet bills are long and thin for probing mud and sand for small subsurface animals.

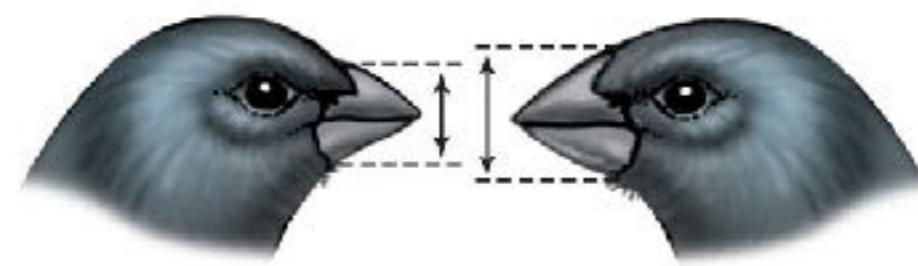
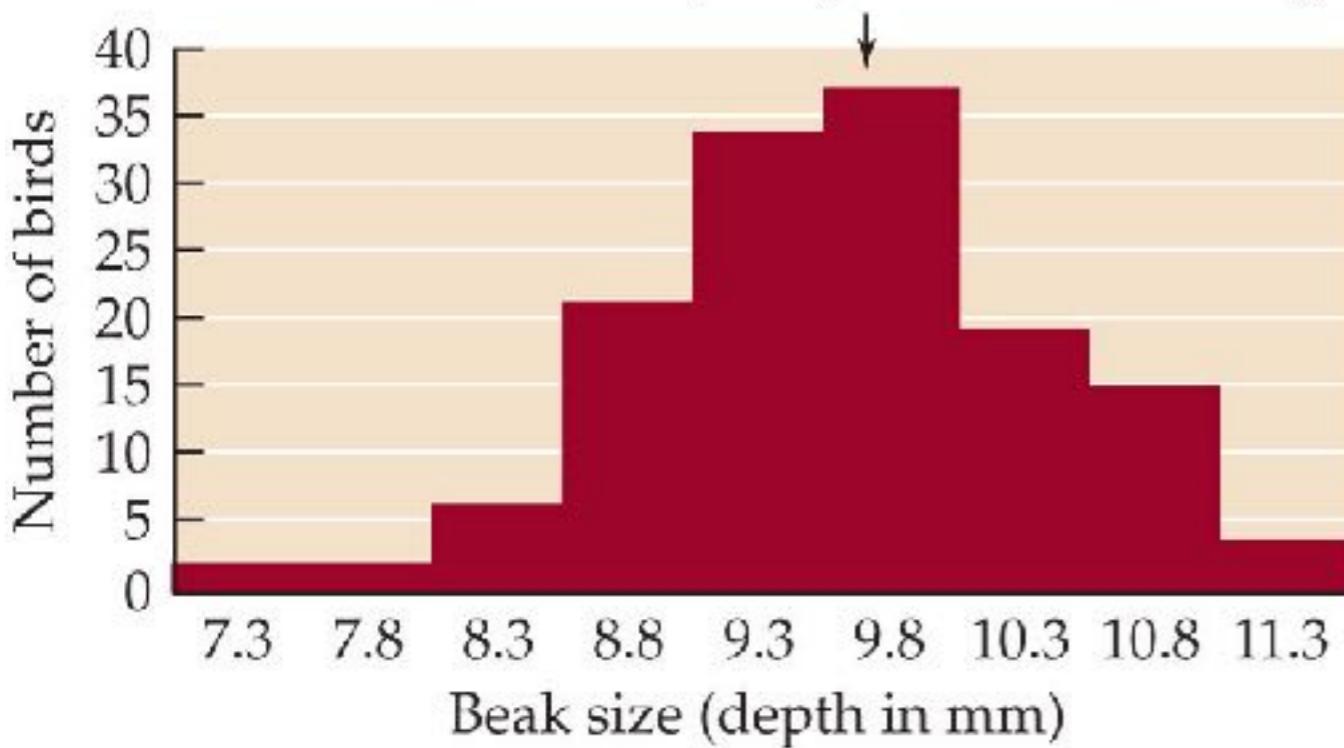


(A) Directional selection

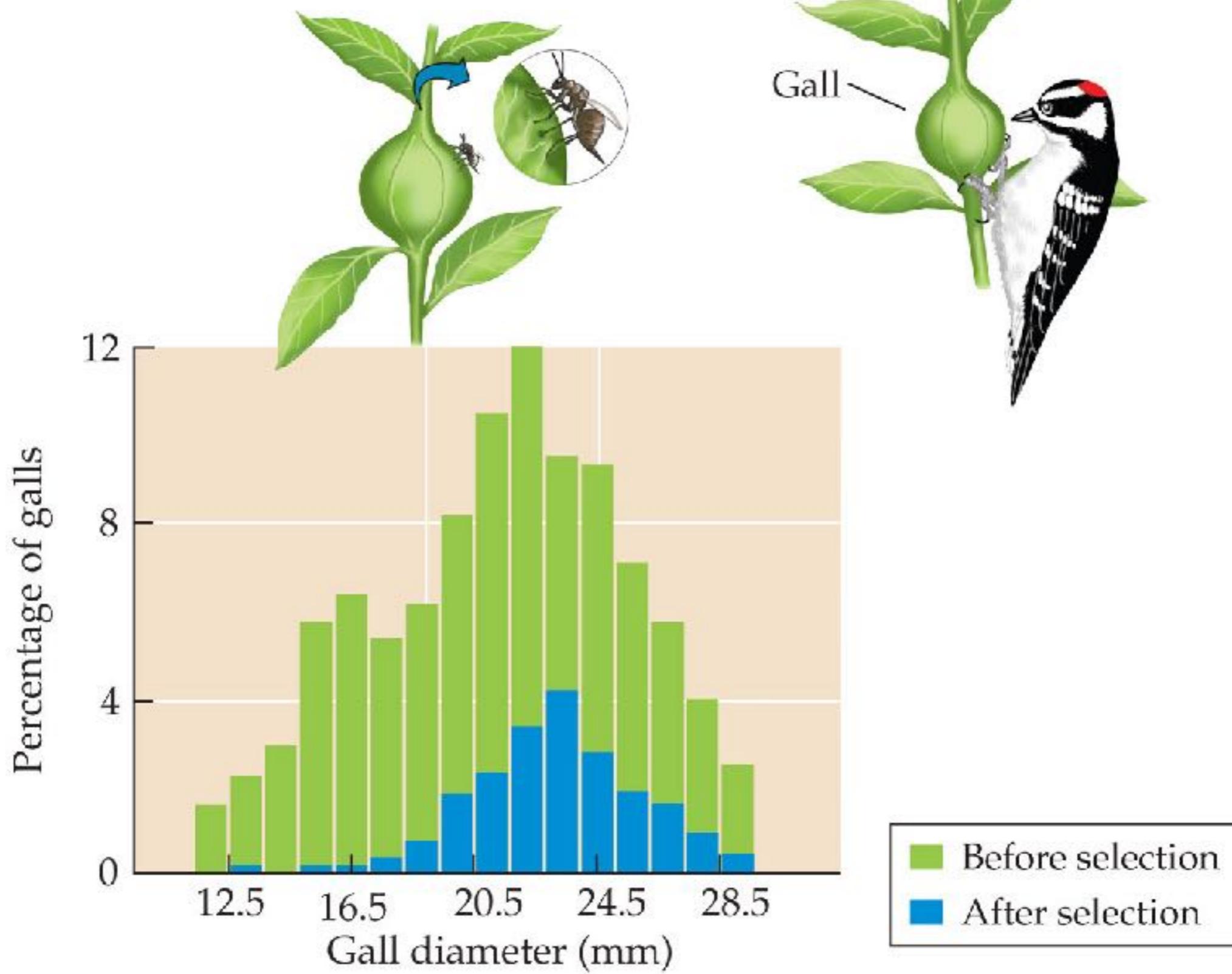
Finches hatched in 1976, the year before the drought



Finches hatched in 1978, the year after the drought



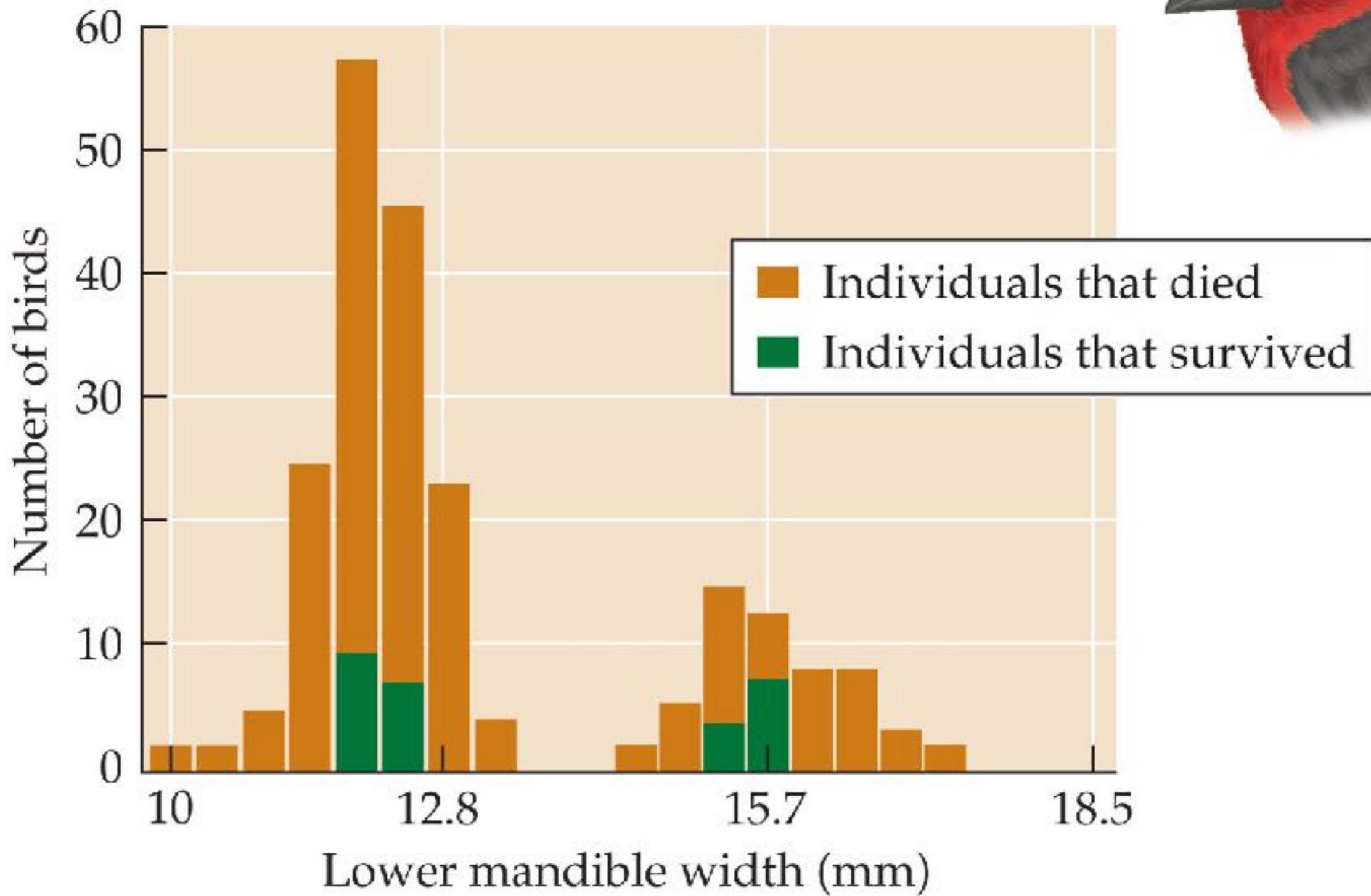
(B) Stabilizing selection

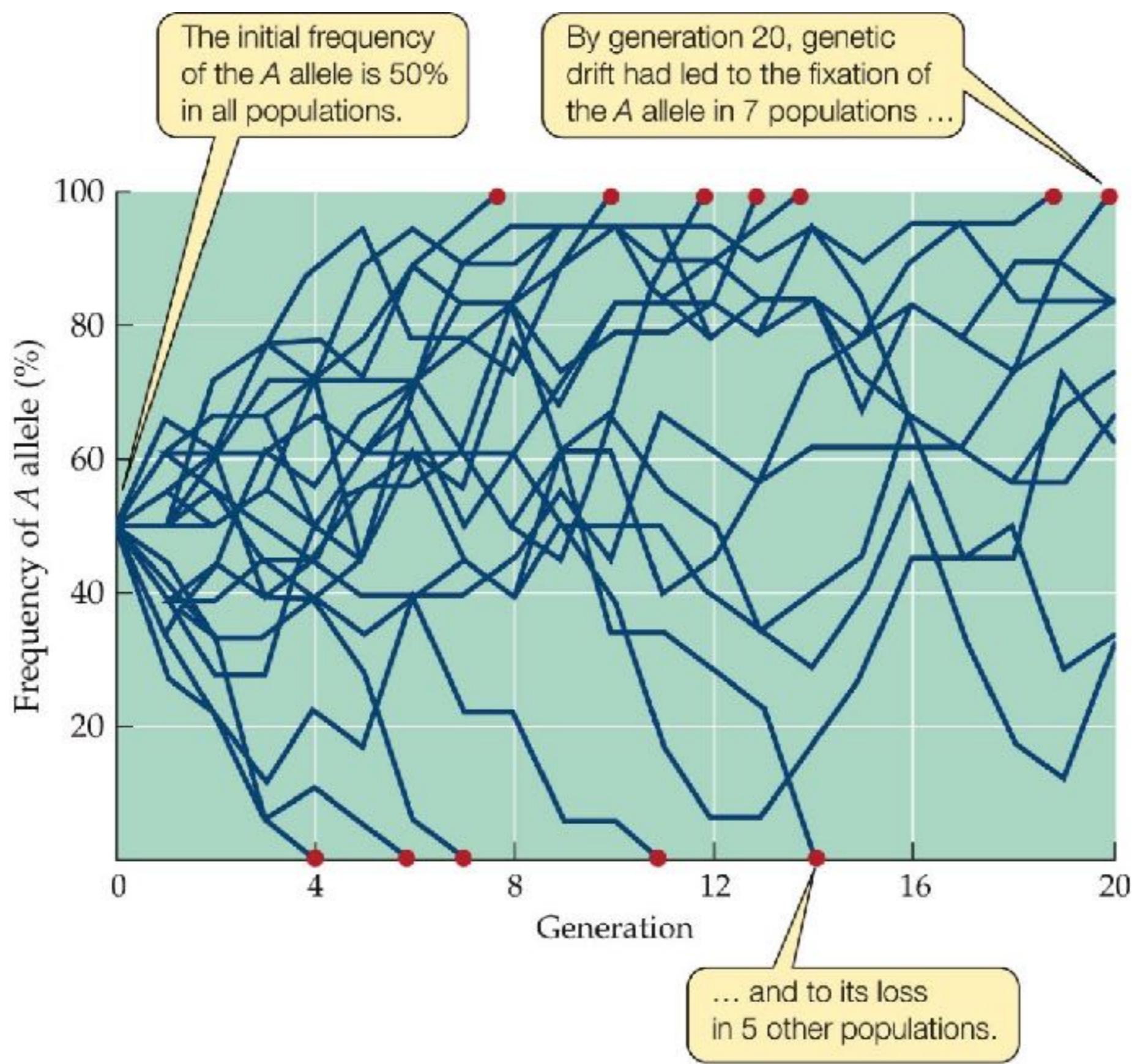


ECOLOGY 3e, Figure 6.6 (Part 2)

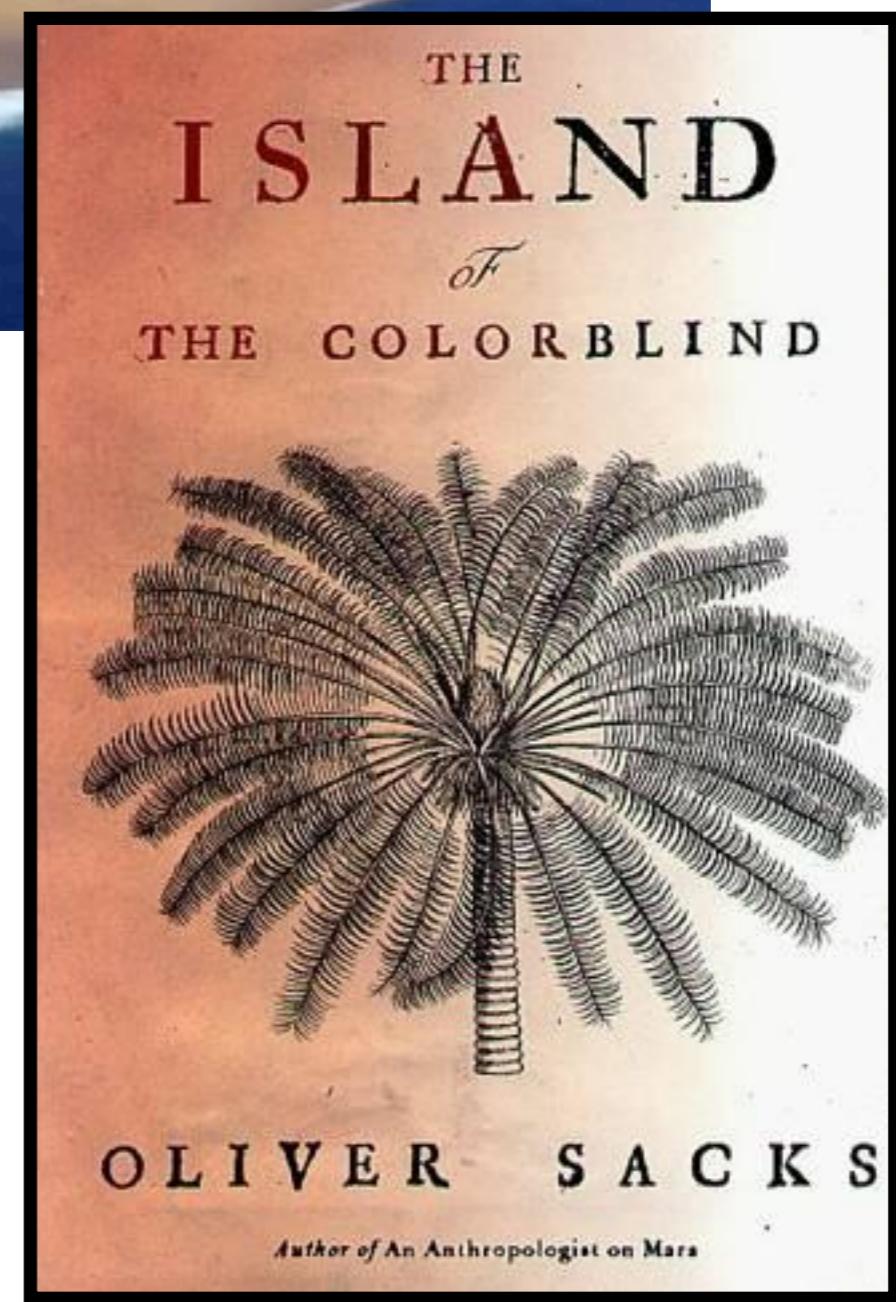
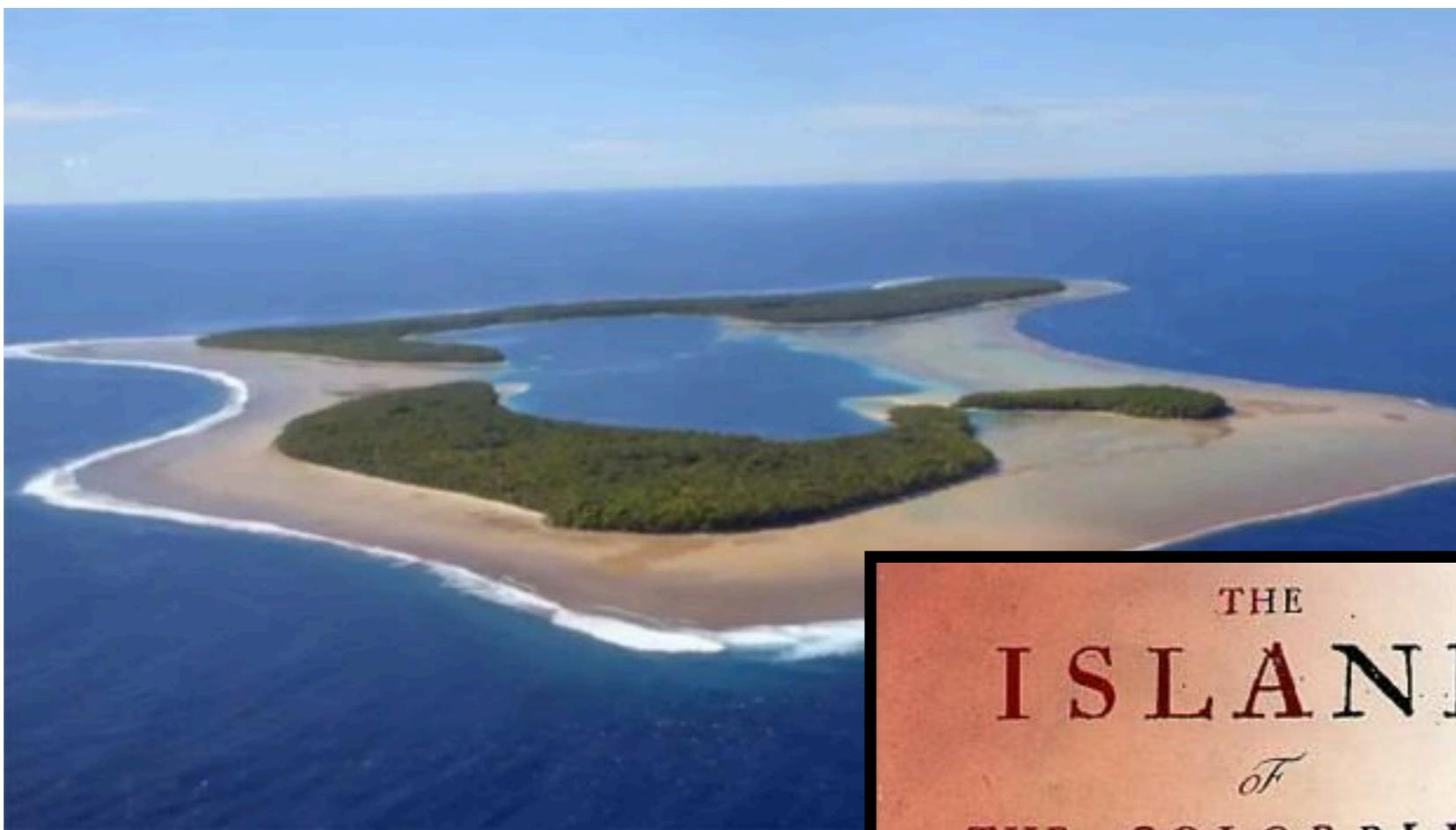
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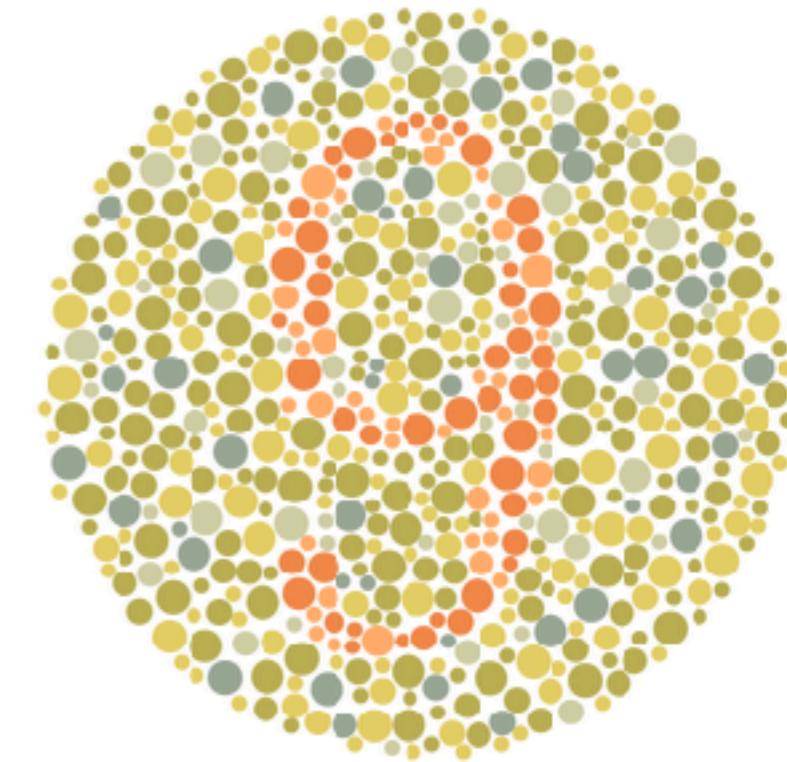
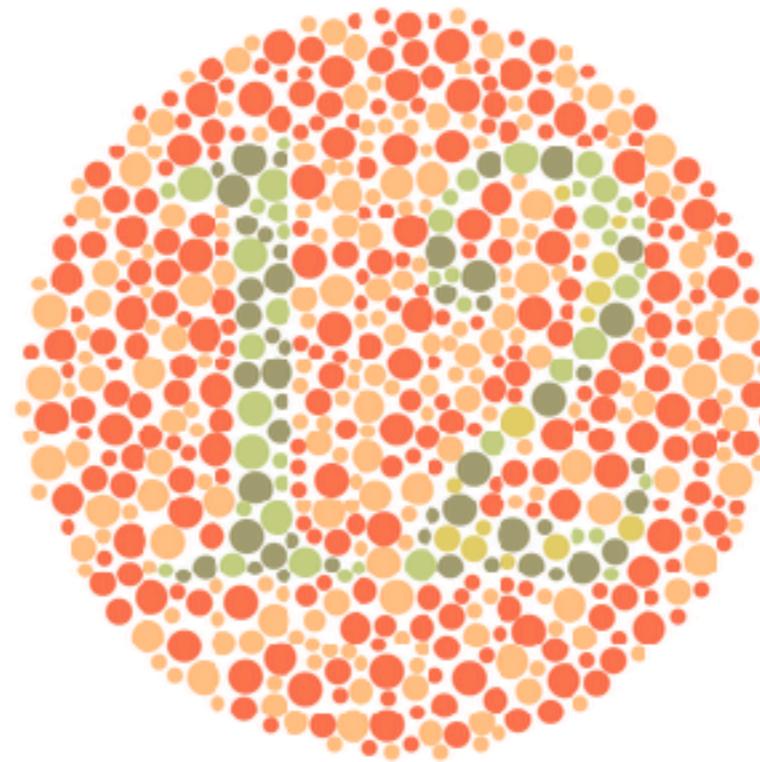
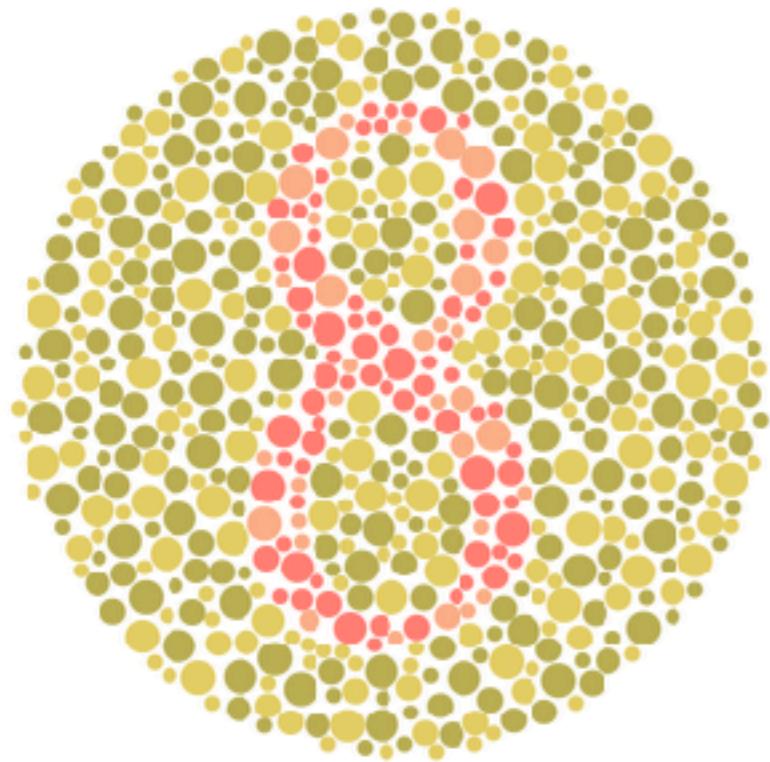
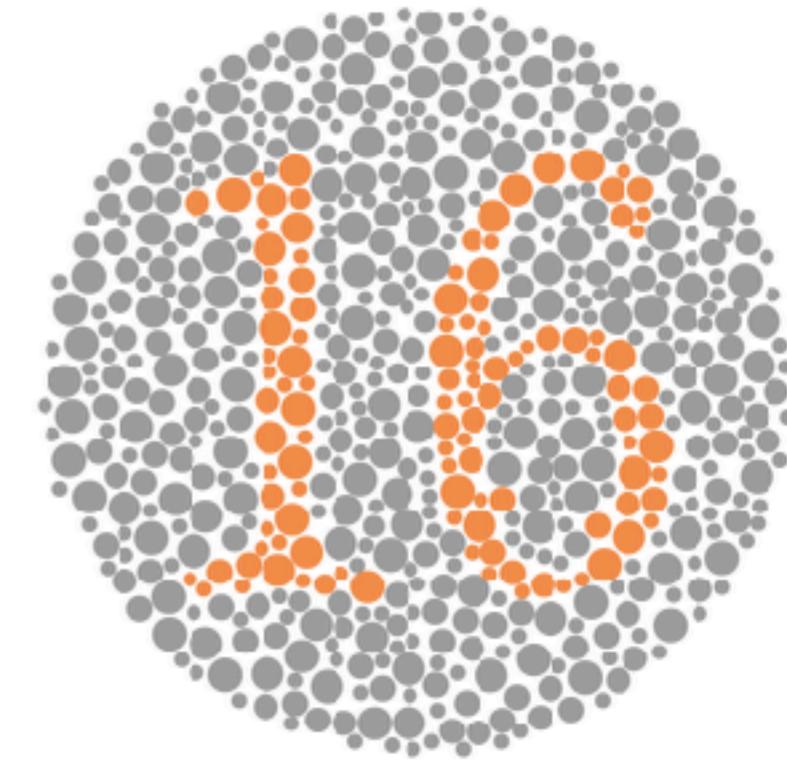
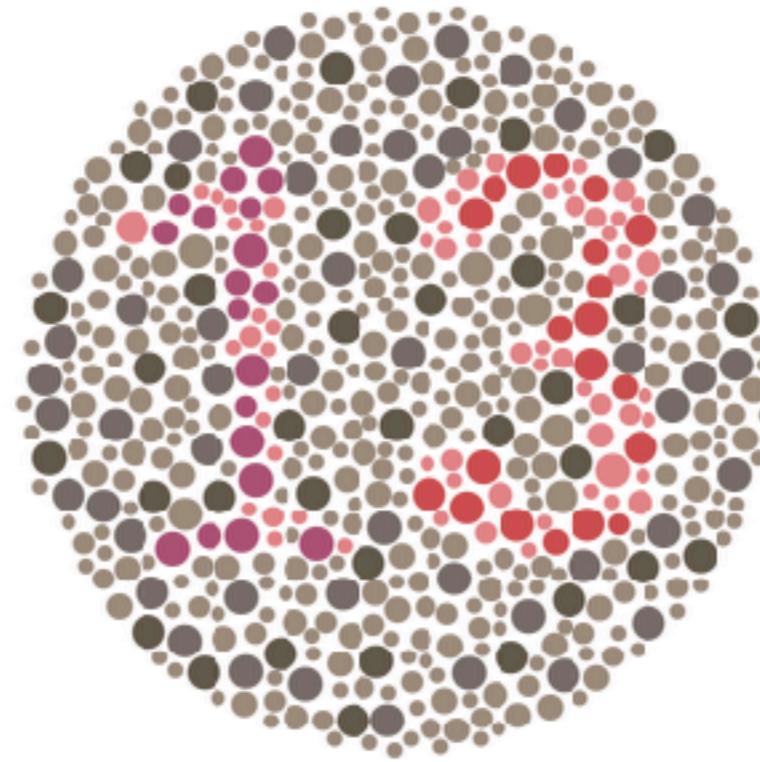
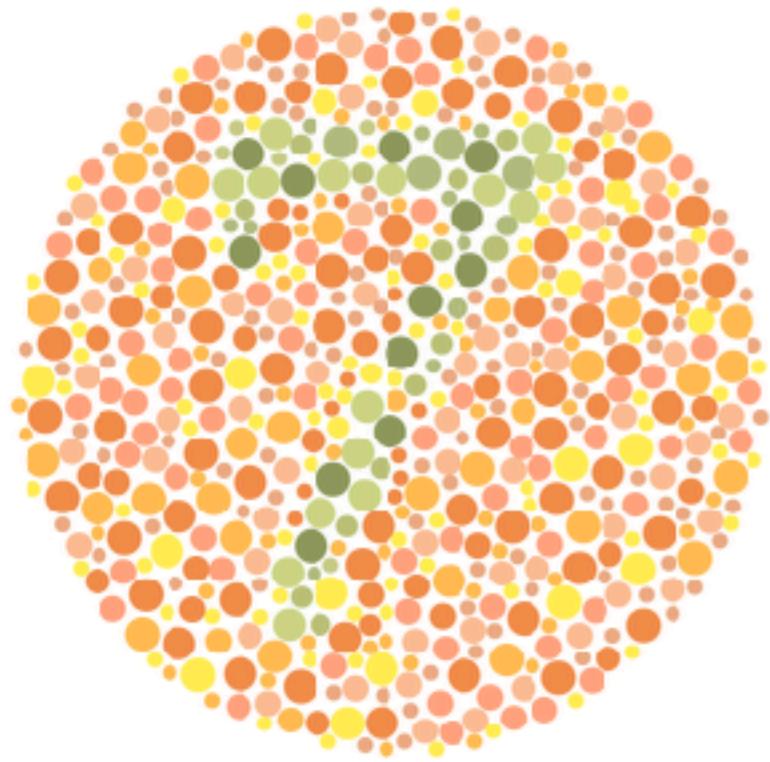
(C) Disruptive selection

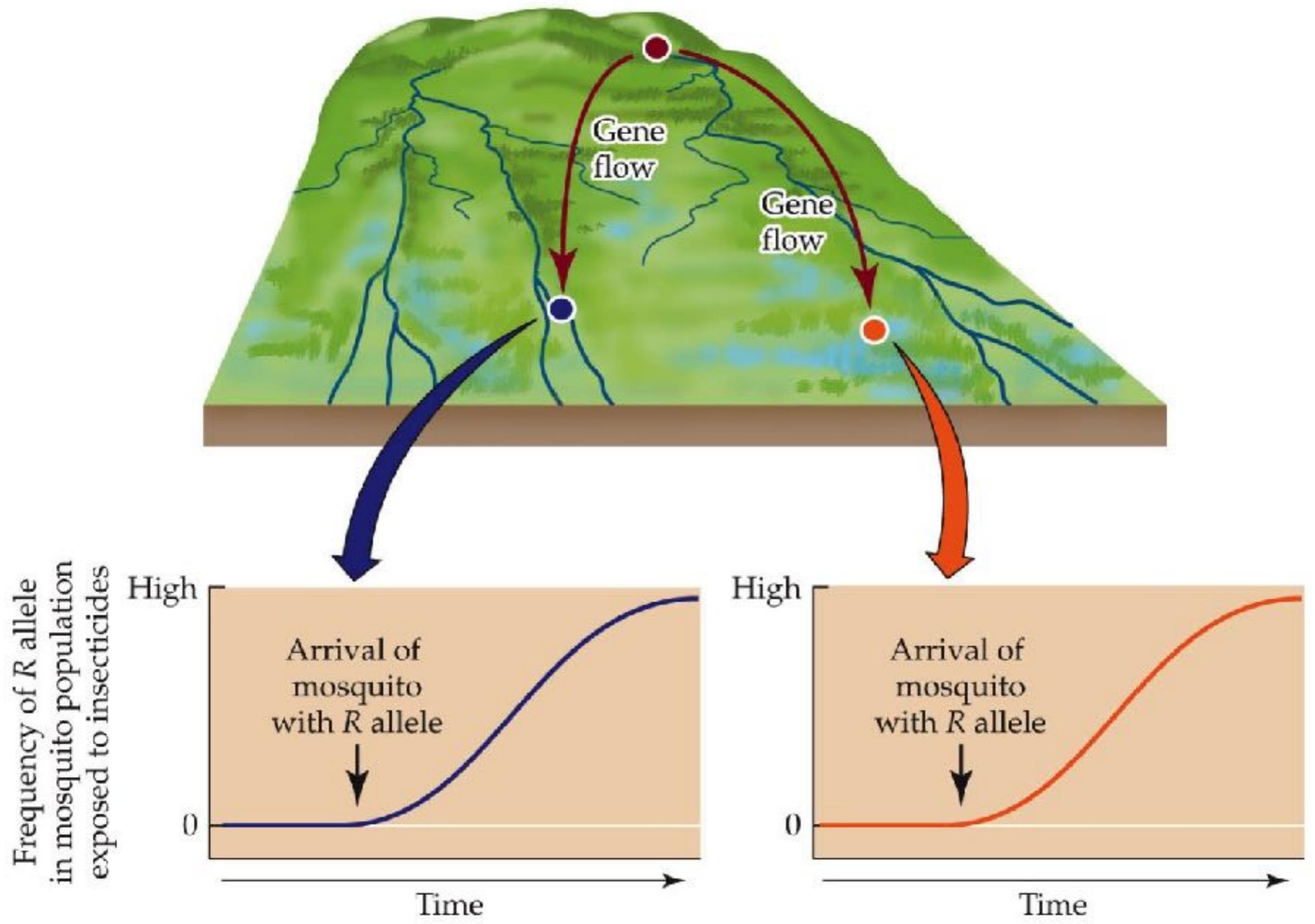


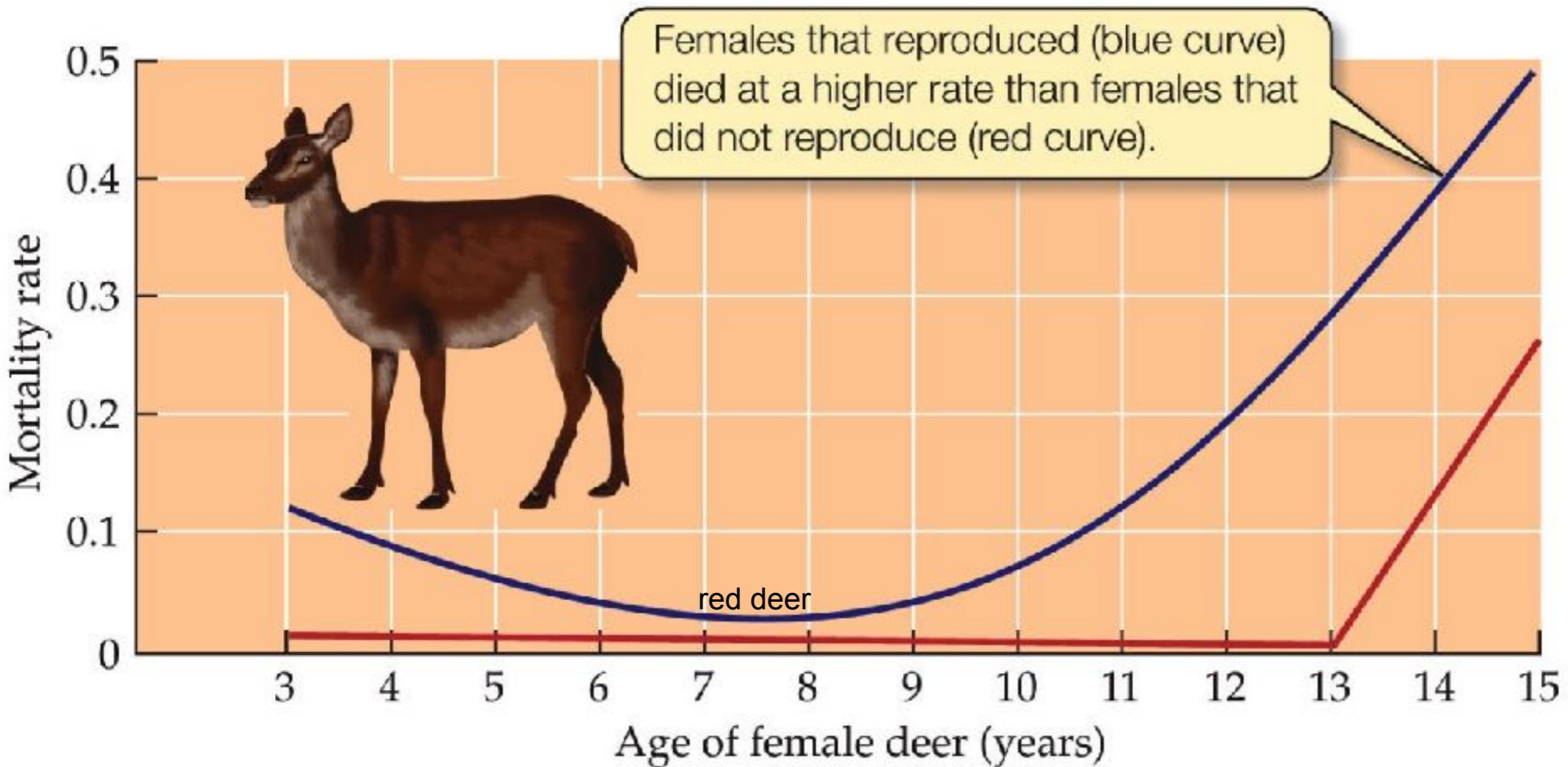


ECOLOGY 2e, Figure 6.7
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Foraging cost
Predation cost