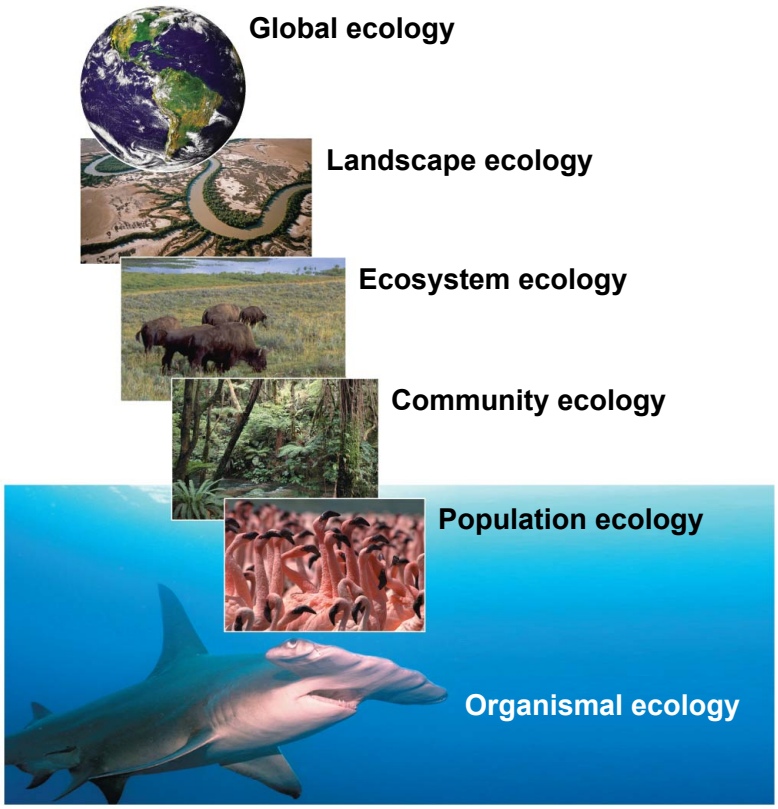
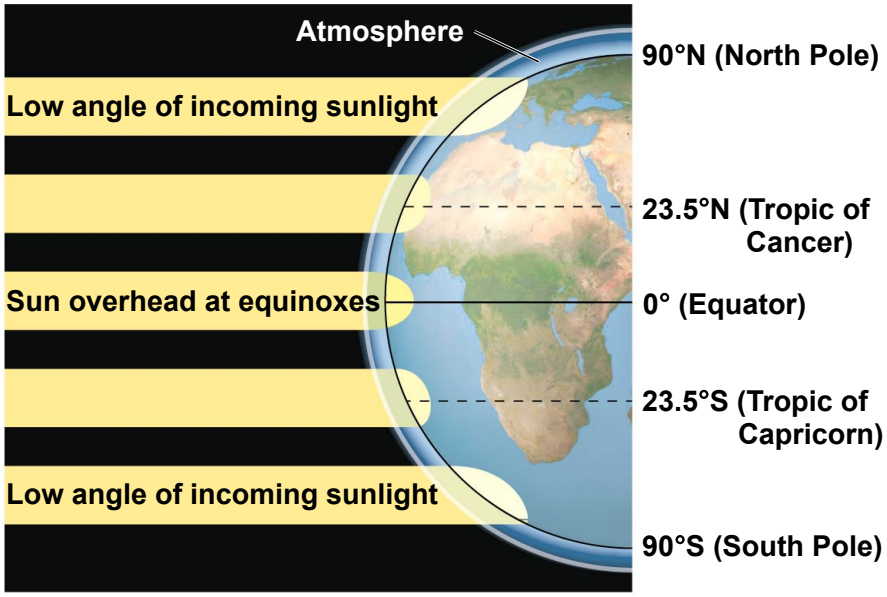
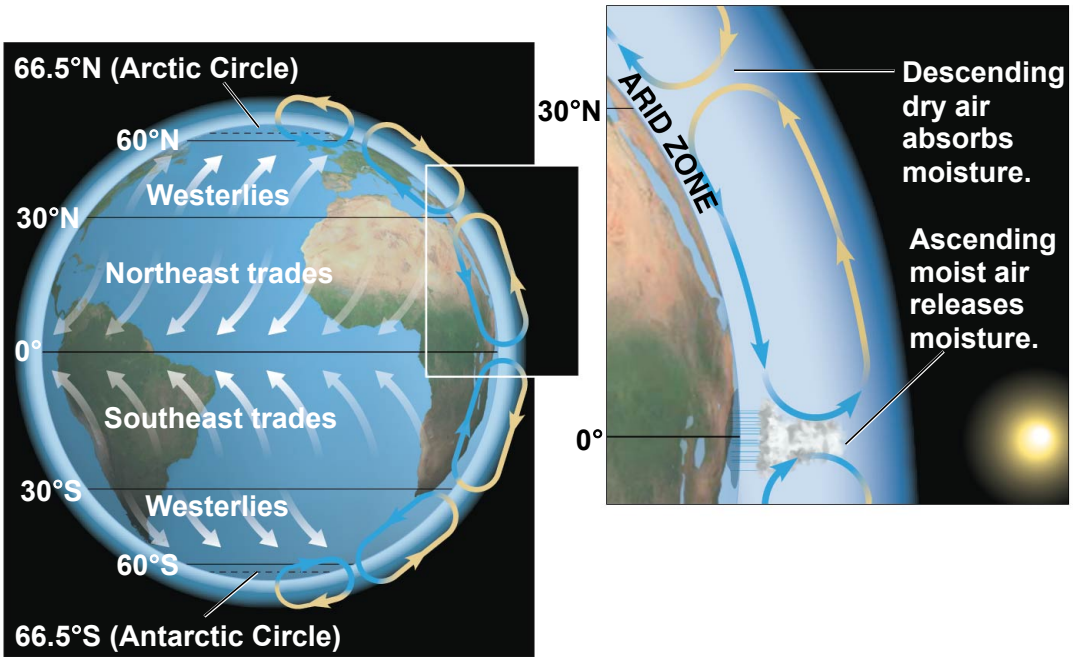
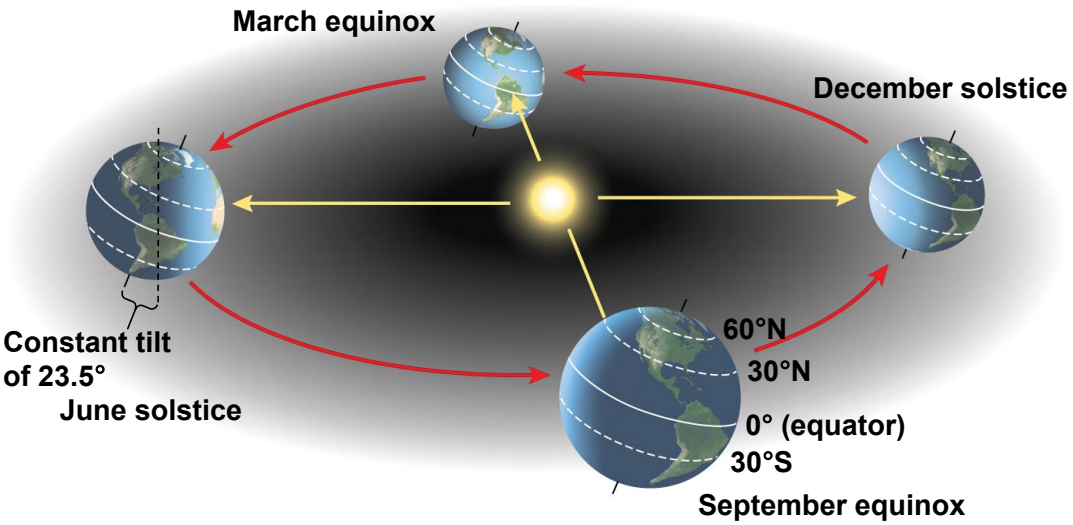


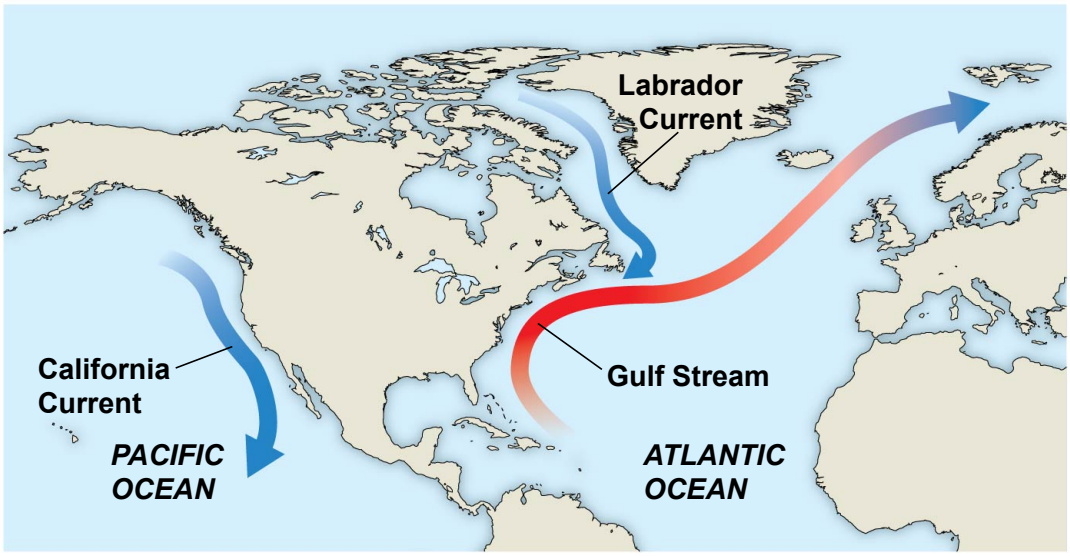


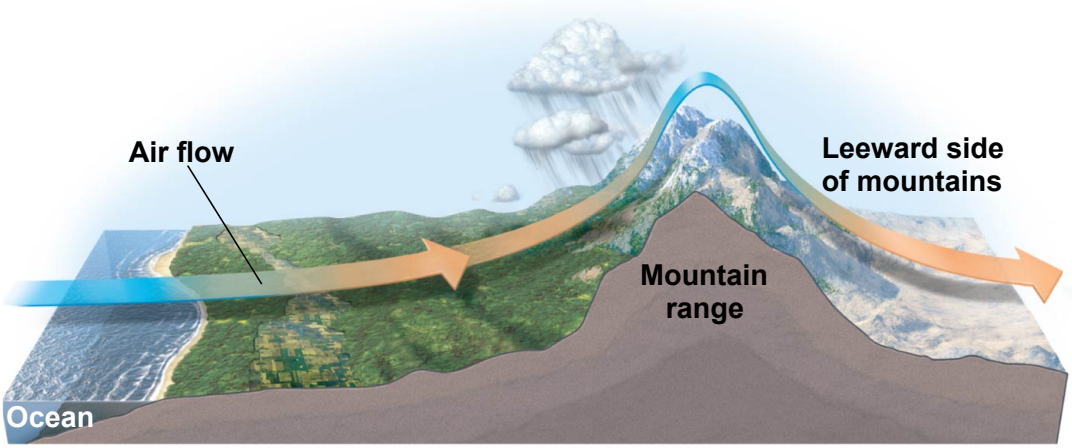
Latitudinal variation in sunlight intensity

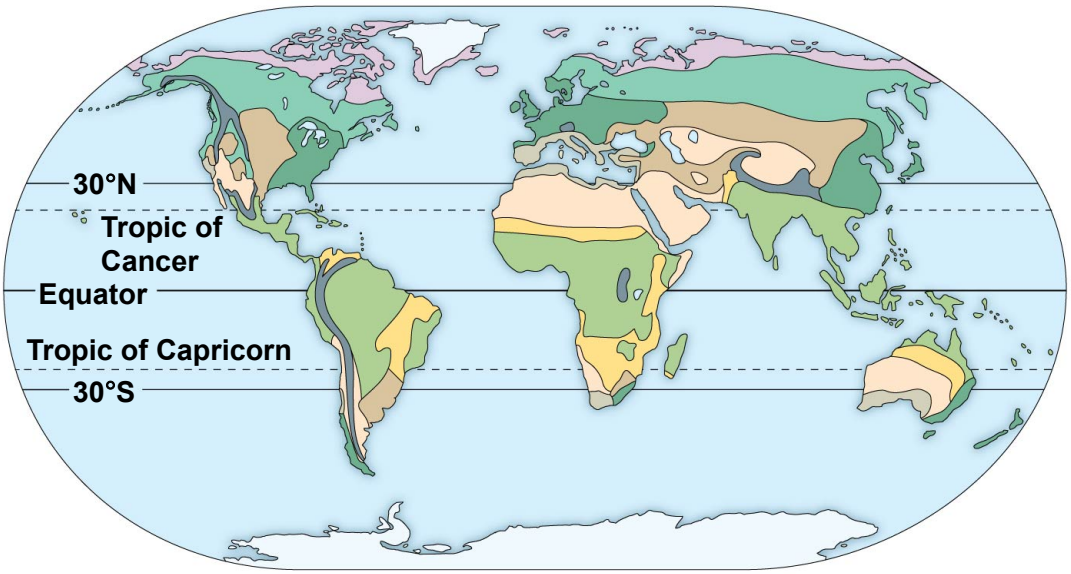


Global air circulation and precipitation patterns

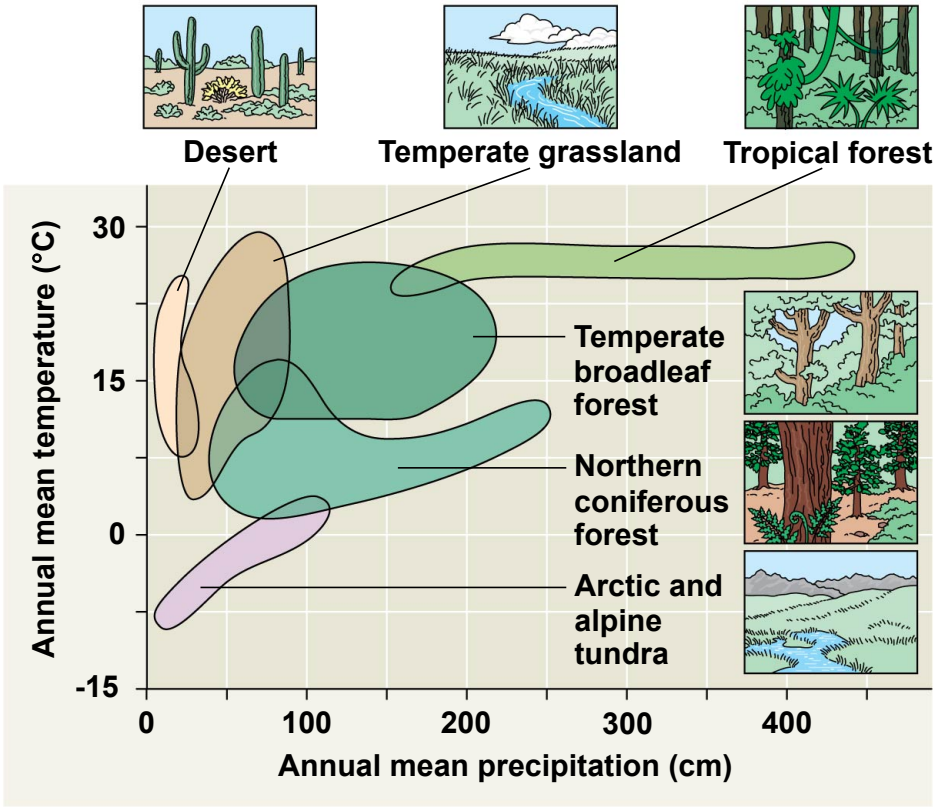








Tropical forest
Savanna
Desert
Chaparral
Temperate grassland
Temperate broadleaf forest
Northern coniferous forest
Tundra
High mountains
Polar ice

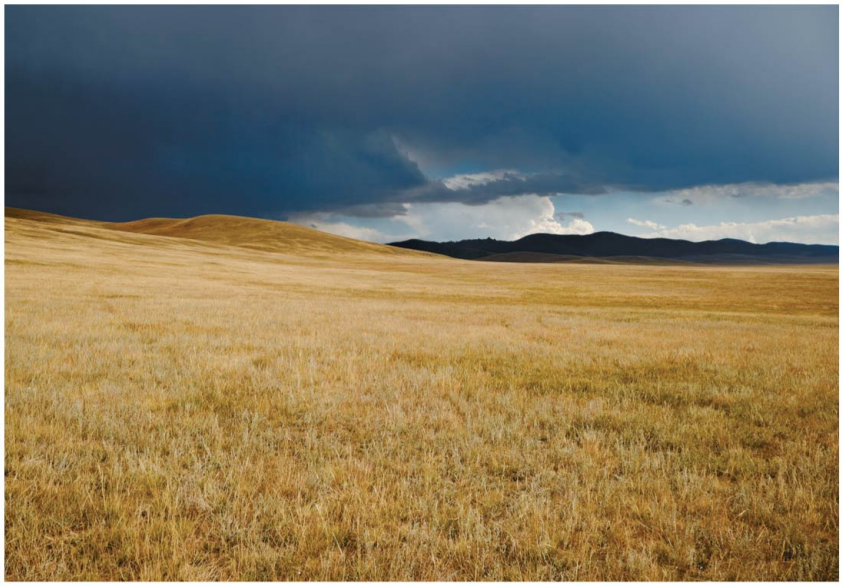


A tropical rain forest in Costa Rica

A savanna in Kenya

Organ Pipe Cactus National Monument, Arizona

An area of chaparral in California



A grassland in Mongolia

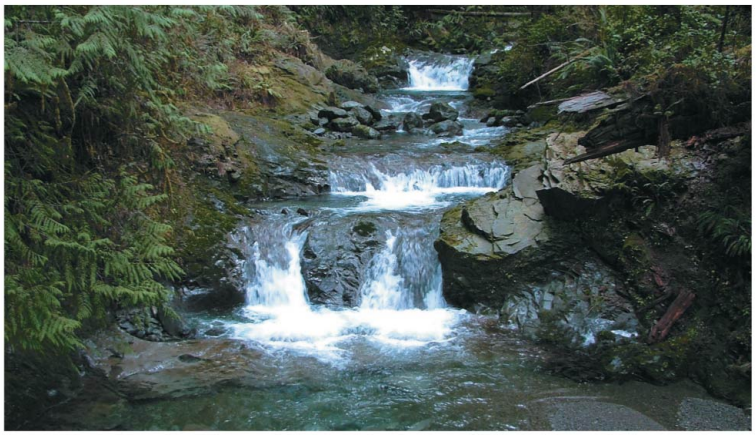
A coniferous forest in Norway

A temperate broadleaf forest in New Jersey

Dovrefjell National Park, Norway

A basin wetland in the United Kingdom

An oligotrophic lake in Alberta, Canada

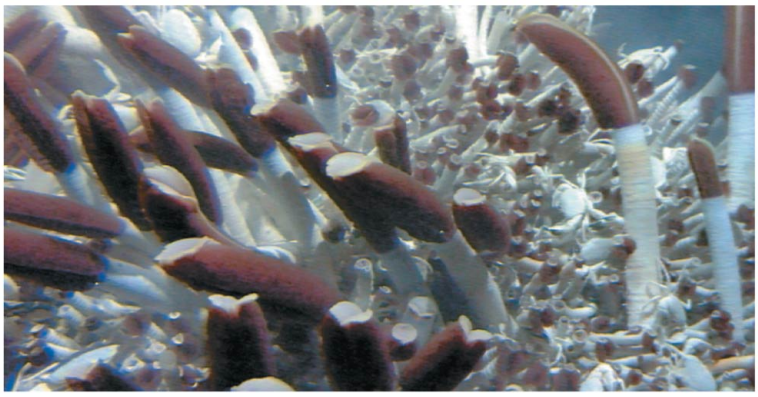


A headwater stream in Washington

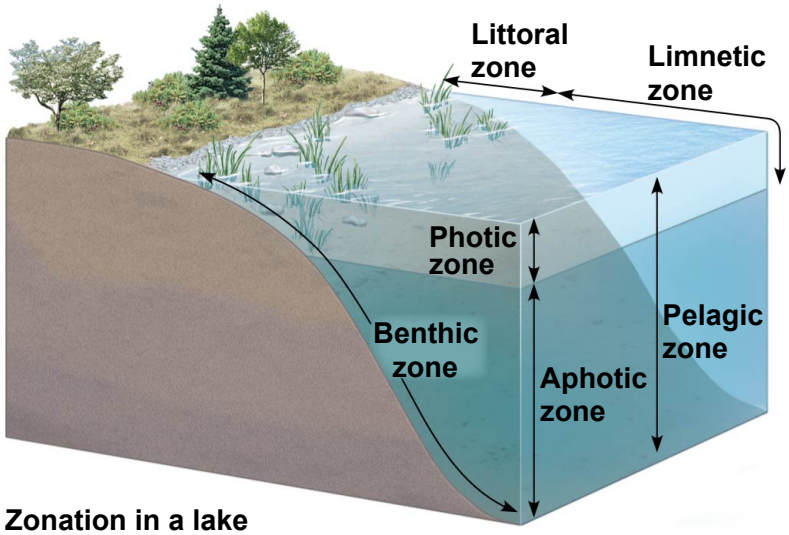
A rocky intertidal zone on the Oregon coast

A coral reef in the Red Sea

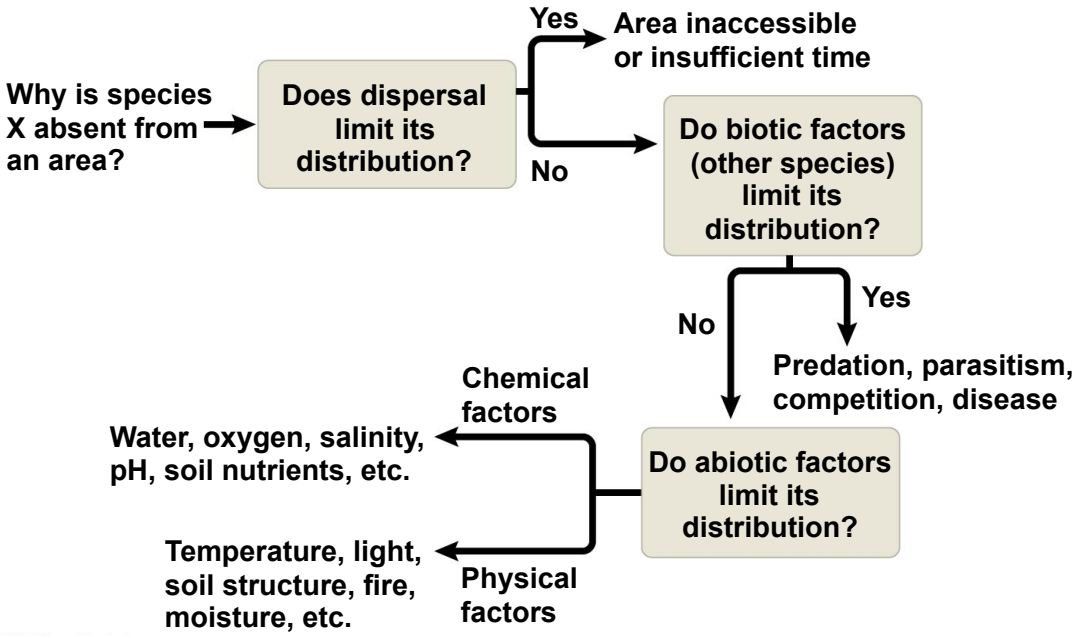
Open ocean near Iceland

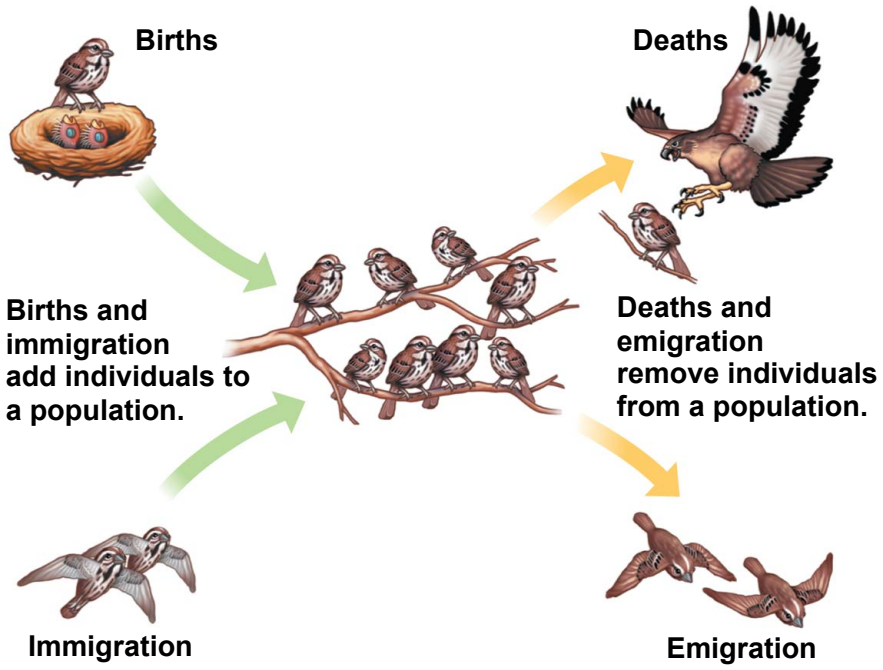


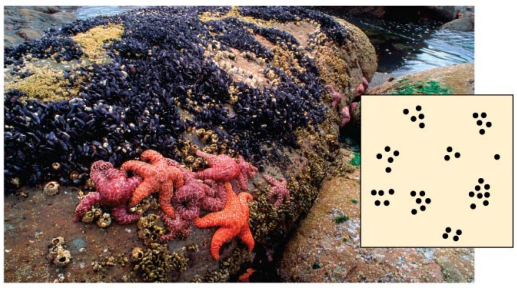
A deep-sea hydrothermal vent community



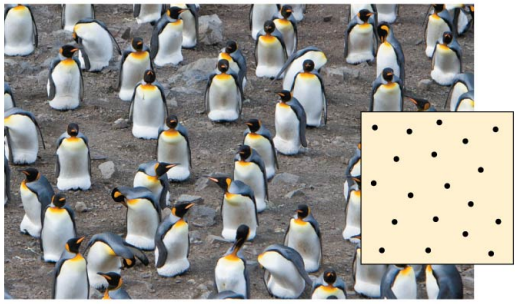
Zonation in a lake





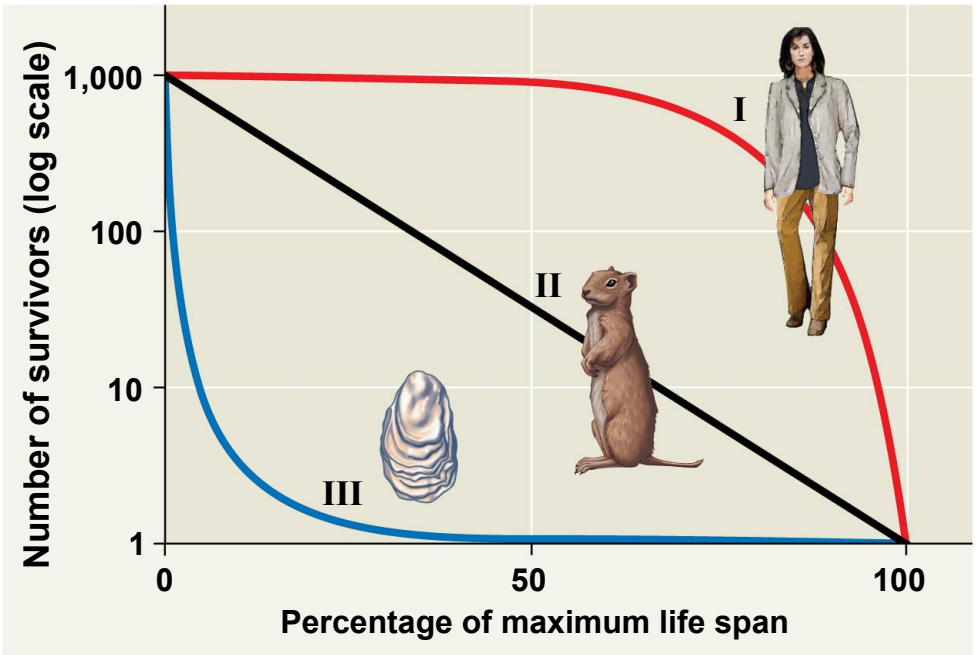


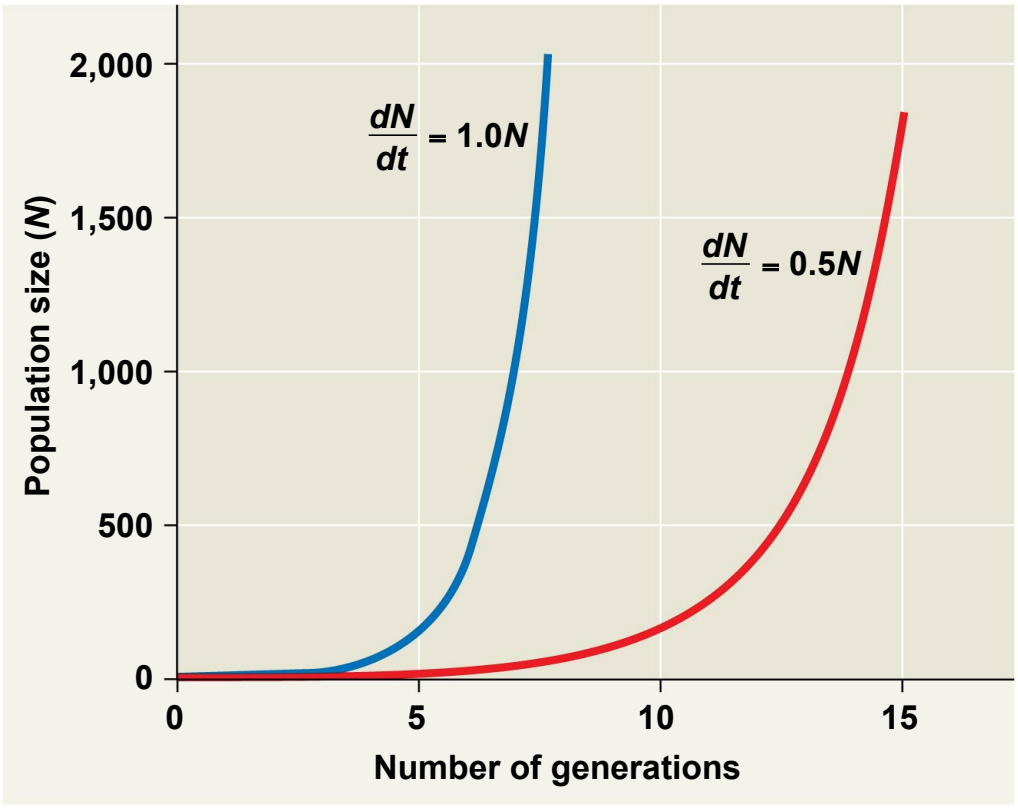
(a) Clumped



(b) Uniform

(c) Random





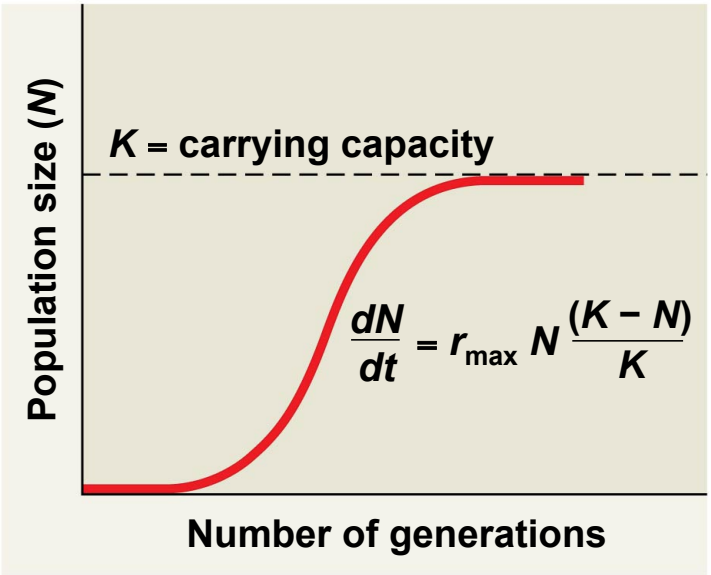
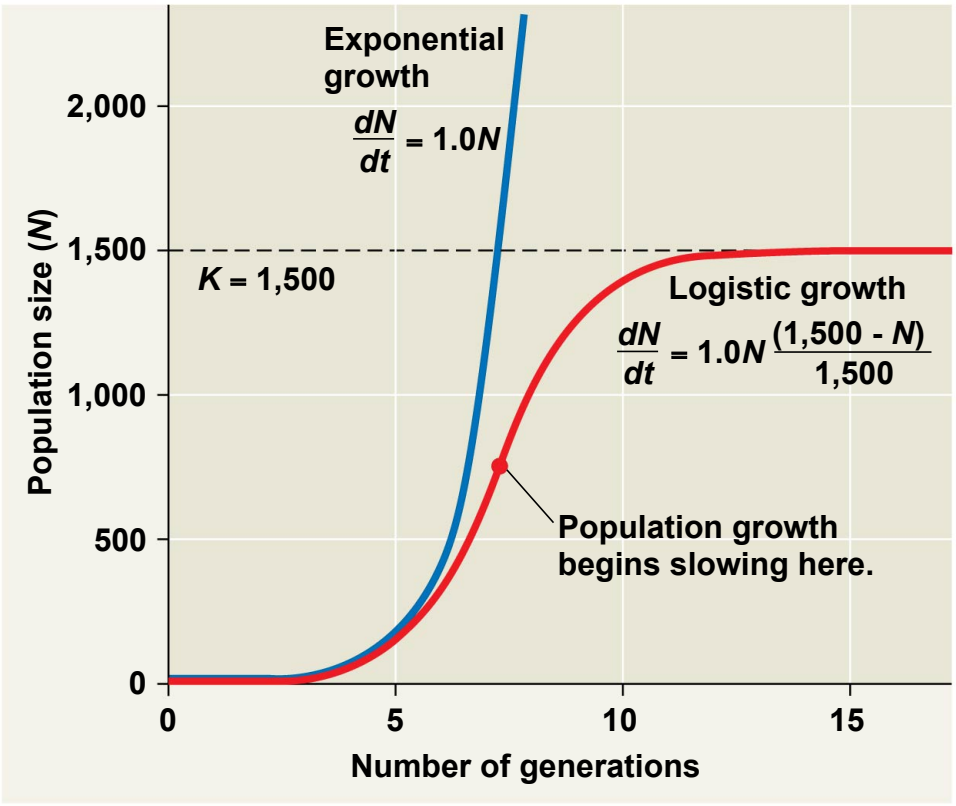


Table 40.2 Logistic Growth of a Hypothetical Population ($K = 1{,}500$)

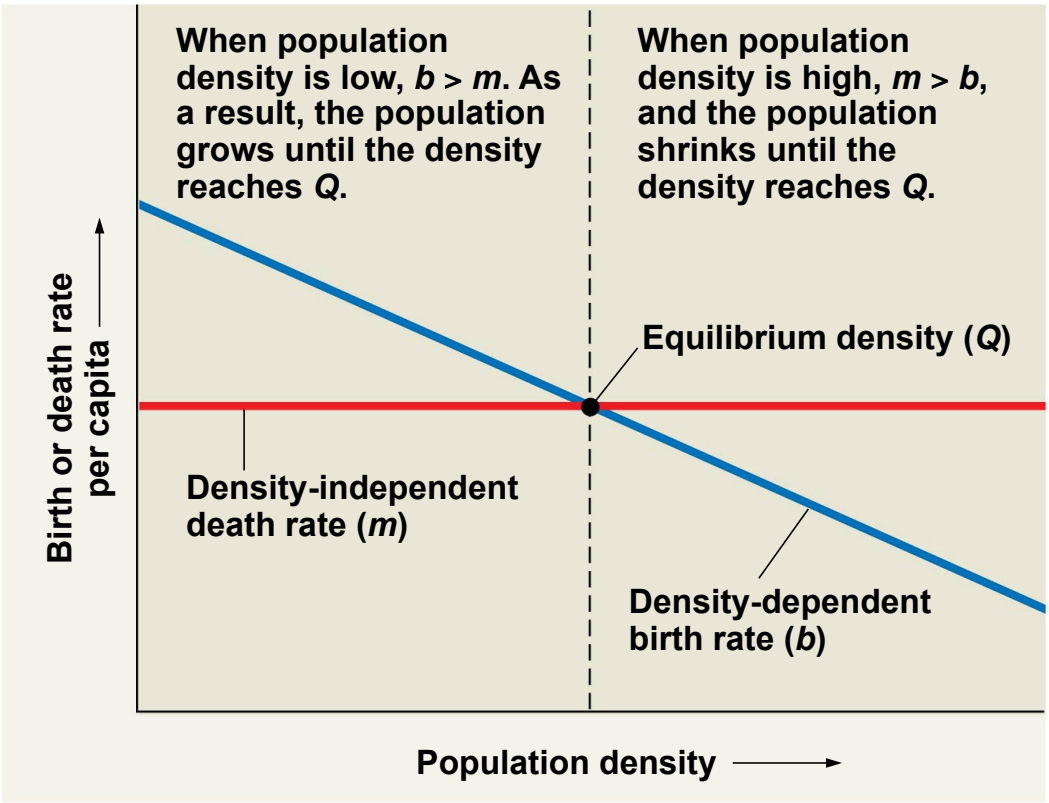
Population Size (N)	Maximum Rate of Increase (r_{max})	$\frac{K - N}{K}$	Per Capita Rate of Increase $r_{max}\frac{(K - N)}{K}$	Population Growth Rate* $r_{max}N\frac{(K - N)}{K}$
25	1.0	0.98	0.98	+ 25
100	1.0	0.93	0.93	+ 93
250	1.0	0.83	0.83	+ 208
500	1.0	0.67	0.67	+ 333
750	1.0	0.50	0.50	+ 375
1,000	1.0	0.33	0.33	+ 333
1,500	1.0	0.00	0.00	0

*Rounded to the nearest whole number.



Dandelions grow quickly and release a large number of tiny fruits.

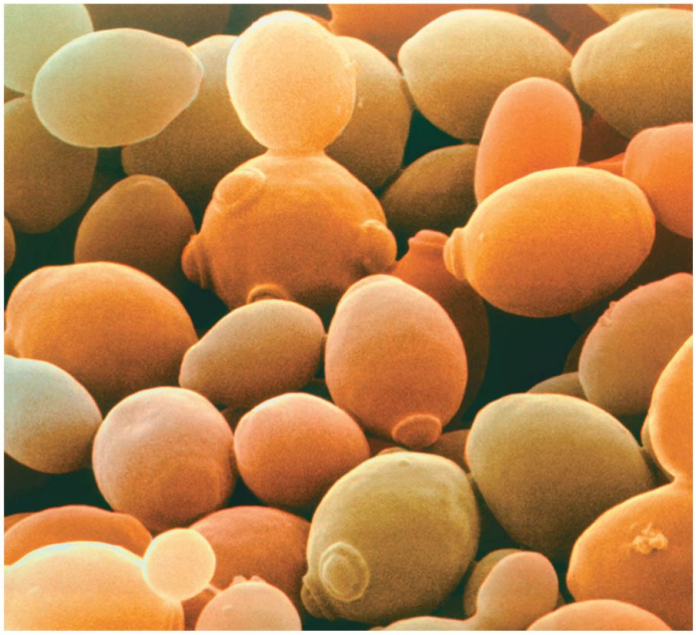
The Brazil nut tree (above), produces a moderate number of large seeds in pods (left).



Competition for resources

Predation

Disease



Toxic wastes

5 μm

Territoriality

Intrinsic factors