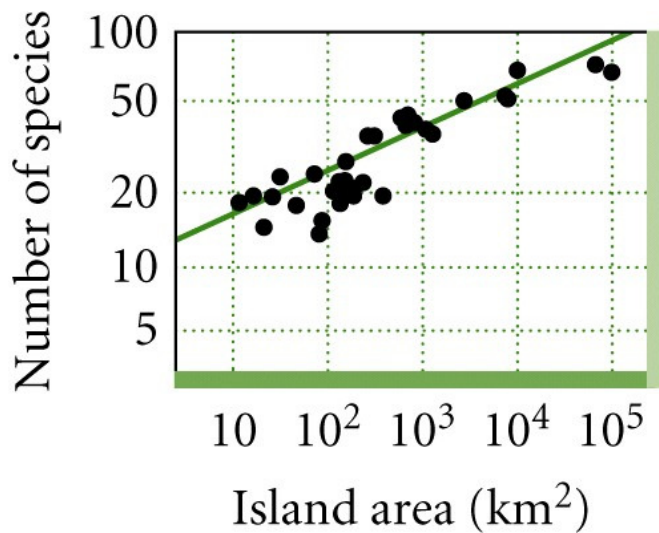
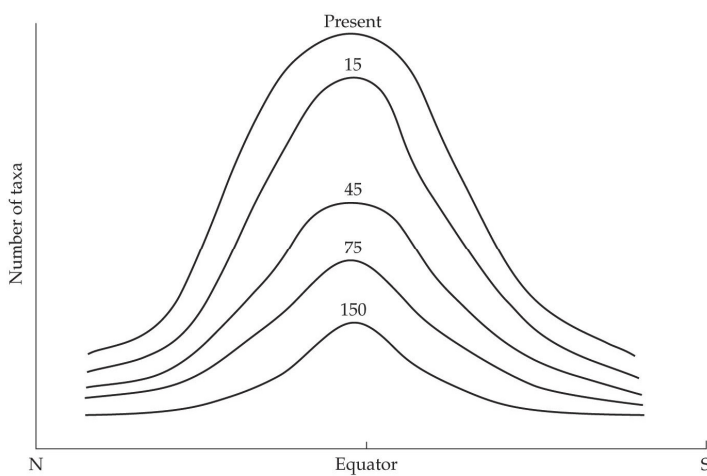


Geography of Species Number

Macroecology: Extended (spatial) scales

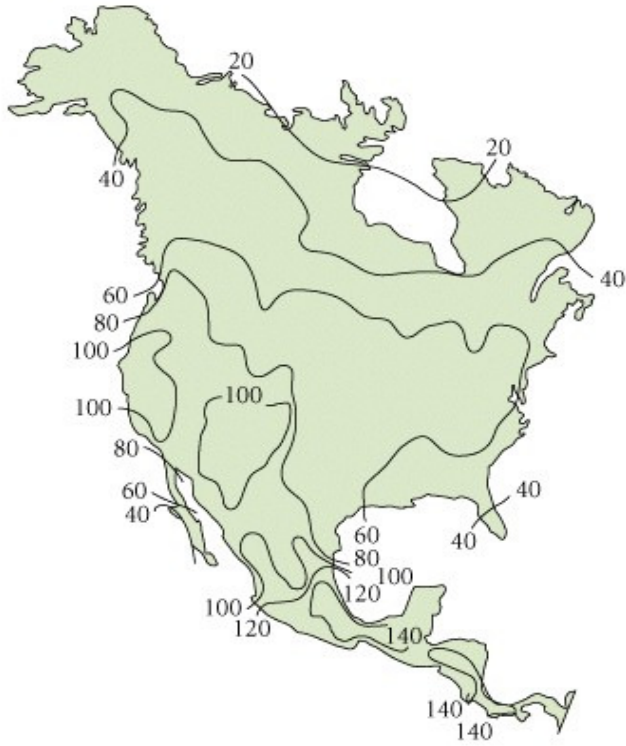


Species-Area Curve (Ricklefs & Miller 1999)

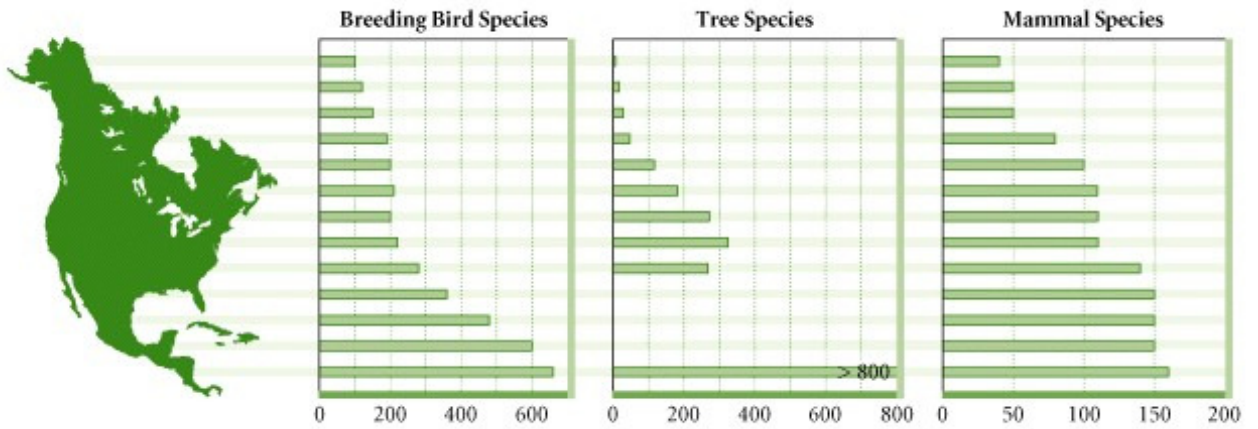


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Latitudinal gradient: tropics more diverse (always)



Mammals: Northern Hemisphere

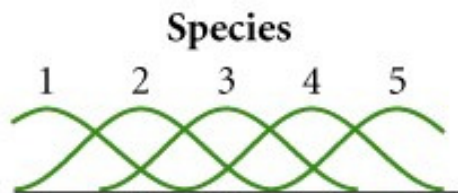


Breeding birds, Tree species, Mammals

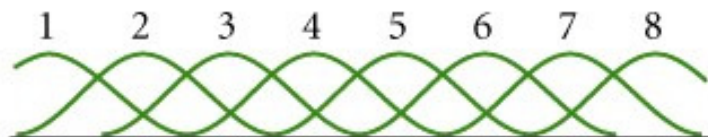
Tropics more diverse than temperate zone

(Approximately) *Universal pattern*

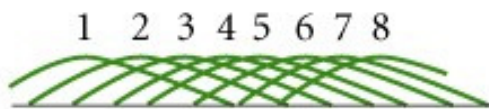
Why? Myriad of non-exclusive hypotheses



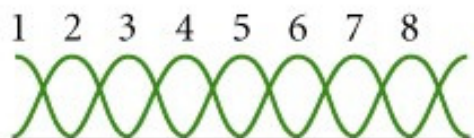
(a) Original condition



(b) Increased resource diversity



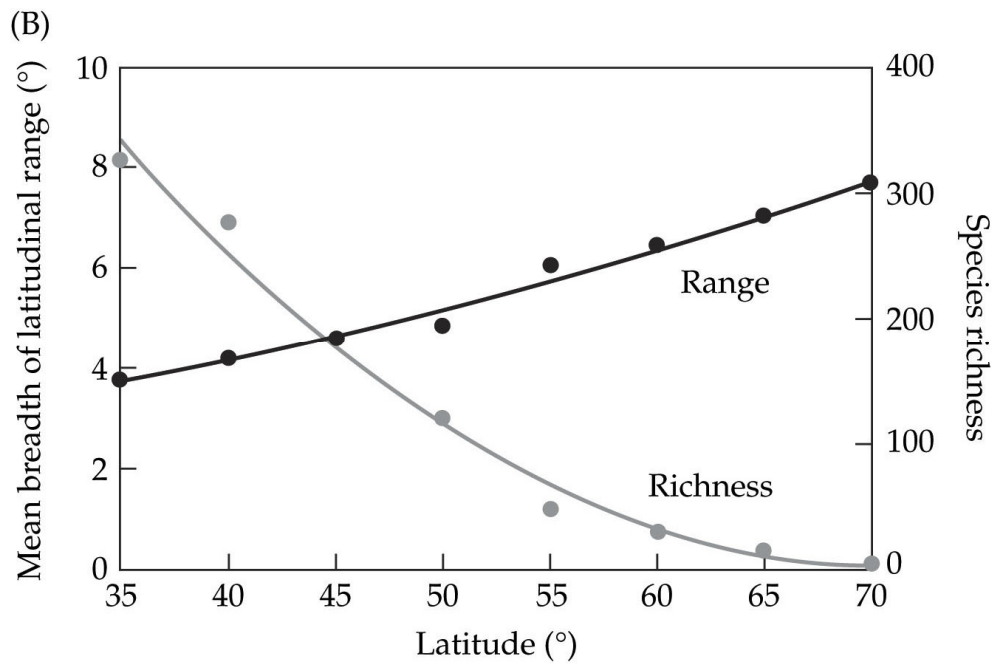
(c) Increased ecological overlap



(d) Increased specialization

Specialization promoted by constancy/predictability (?)

Species number, range size & latitude (Brown & Lomolino 1998)



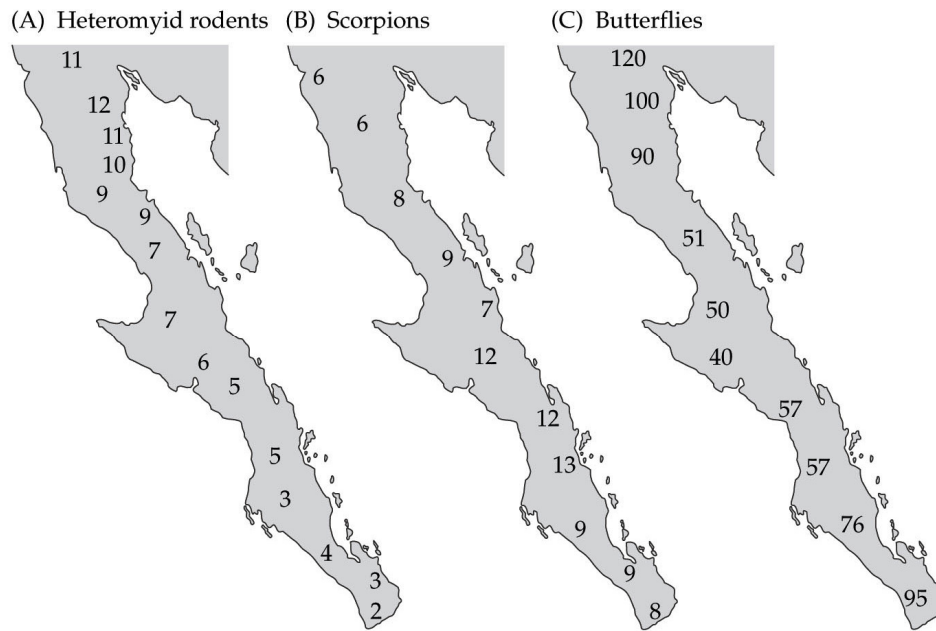
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Tree species

mean range (linear) varies inversely with species number

Generalists: larger ranges?

Peninsula effect (Brown & Lomolino 1998)



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Species number declines (sometimes) along peninsula

Decline in immigration, increase in extinction?