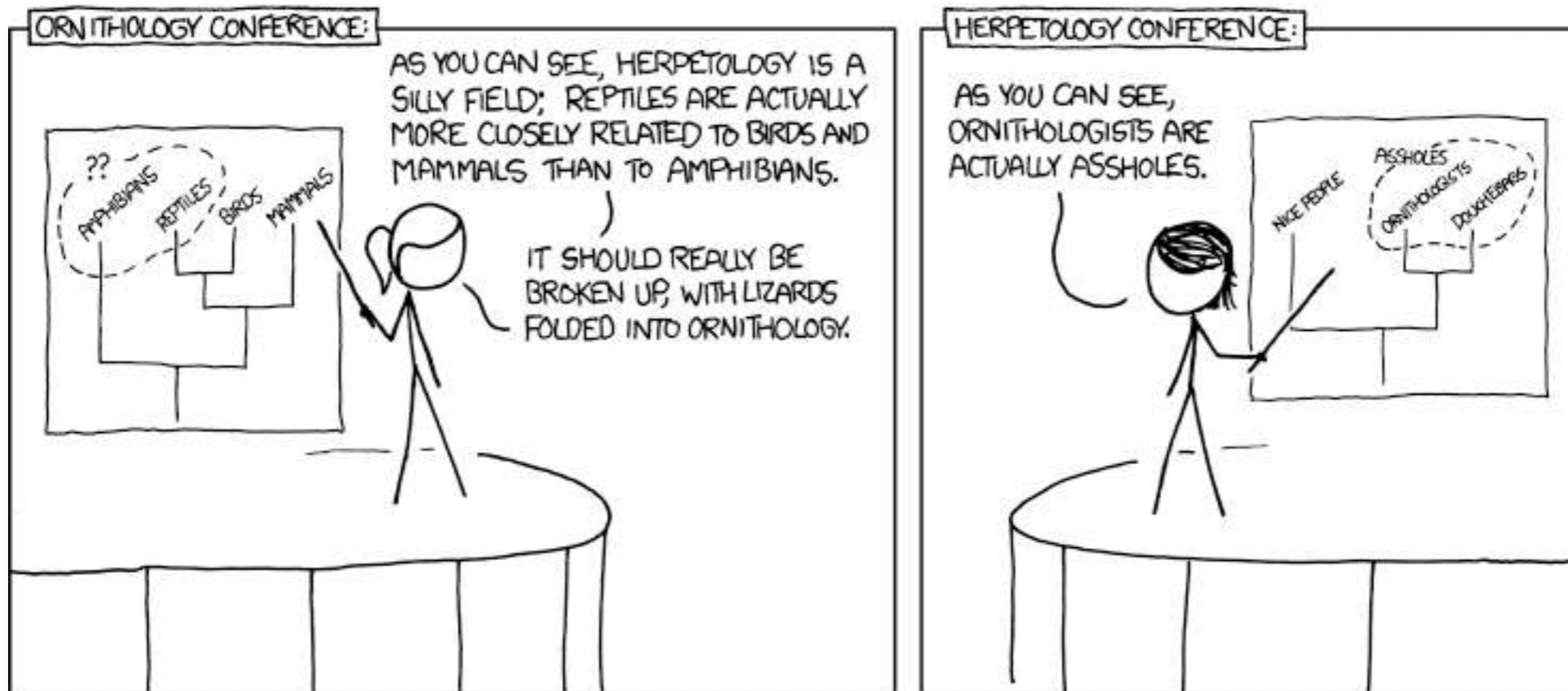


Herpetology Systematics



Announcements

- I should have everyone's project proposals by now
- Short lecture today - we're off to Bigelow Hollow, 30 minutes to the northeast
- We'll need to *hustle* today

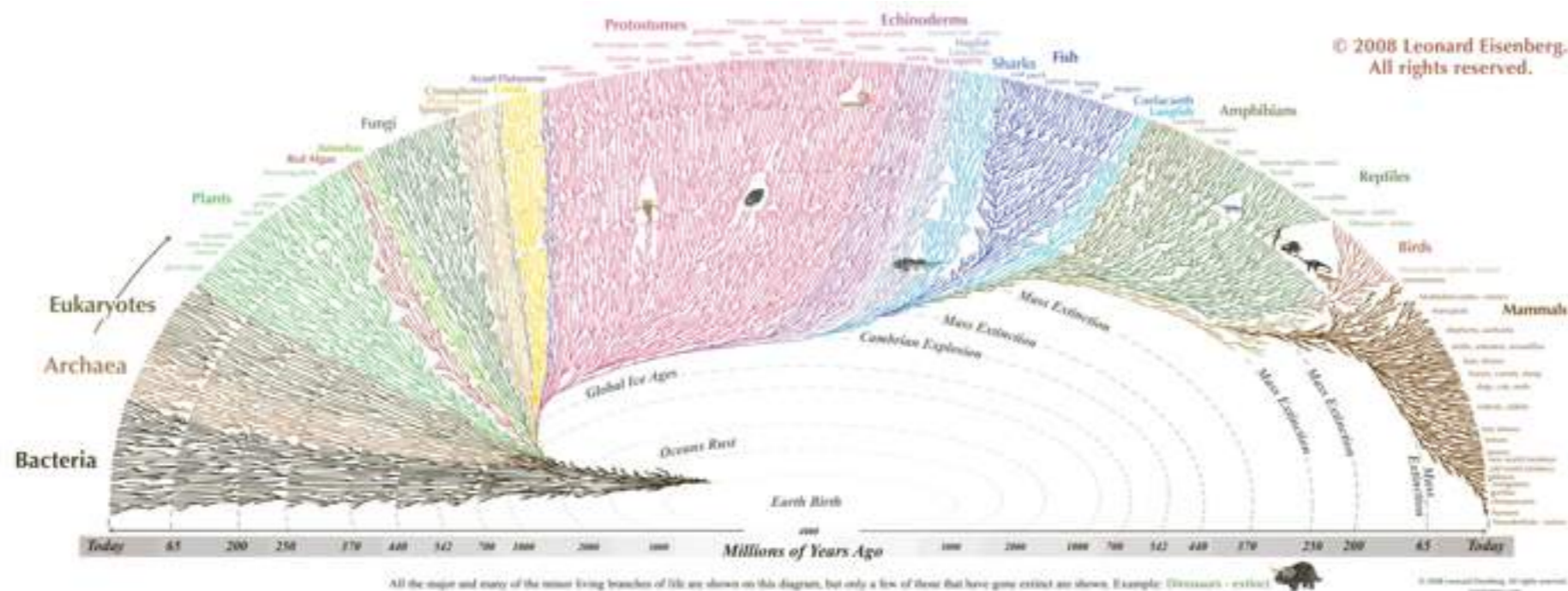


?

What kind of herp is this?

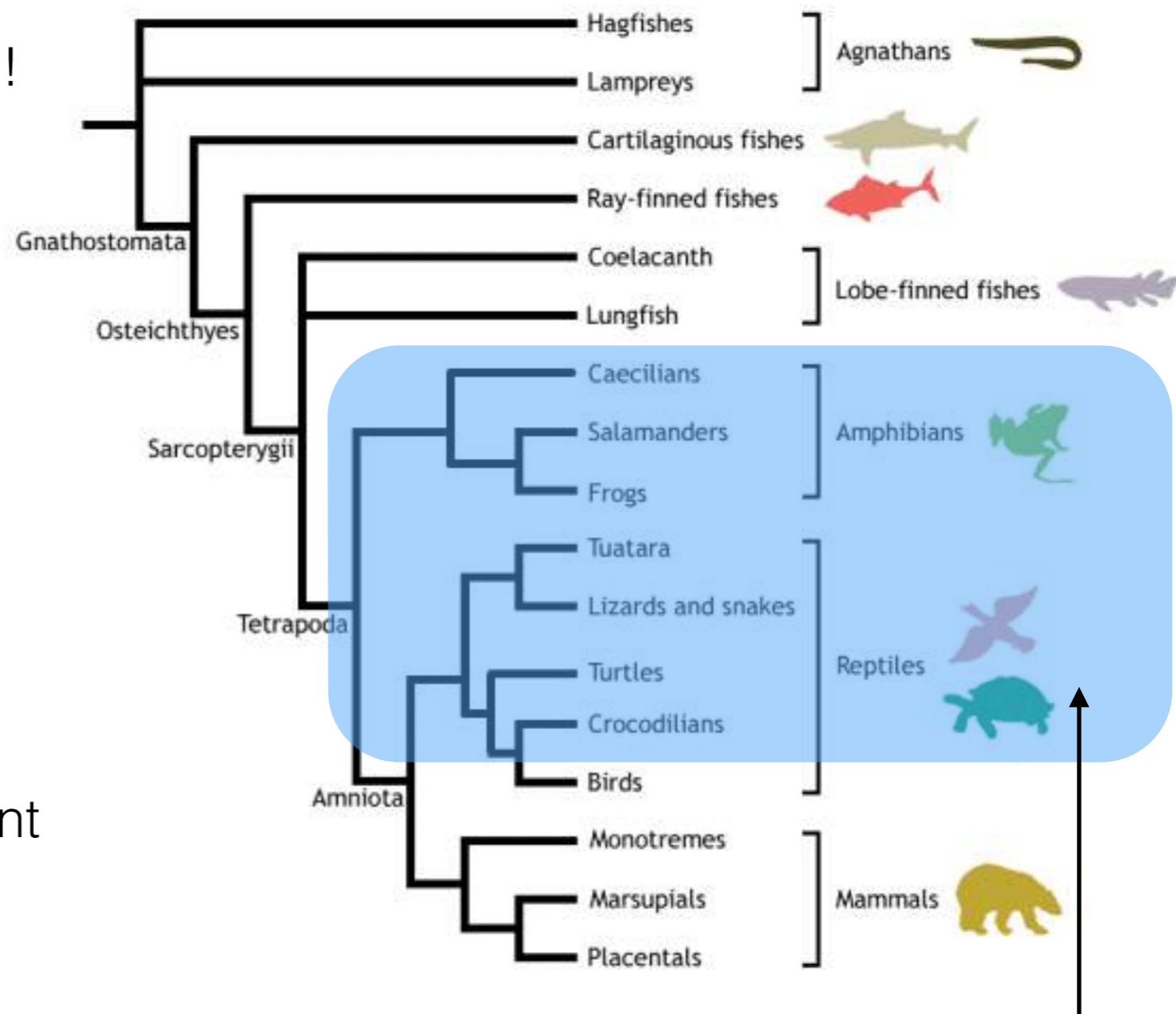
What is Systematics

- “The study of the kinds and diversity of organisms, and all relationships among them”
- A **clade** is a group of organisms that share a single common ancestor
- Two clades are **sister clades** if they are each other’s closest relative
- Today, I’ll show you where CT species lie within the tree of life



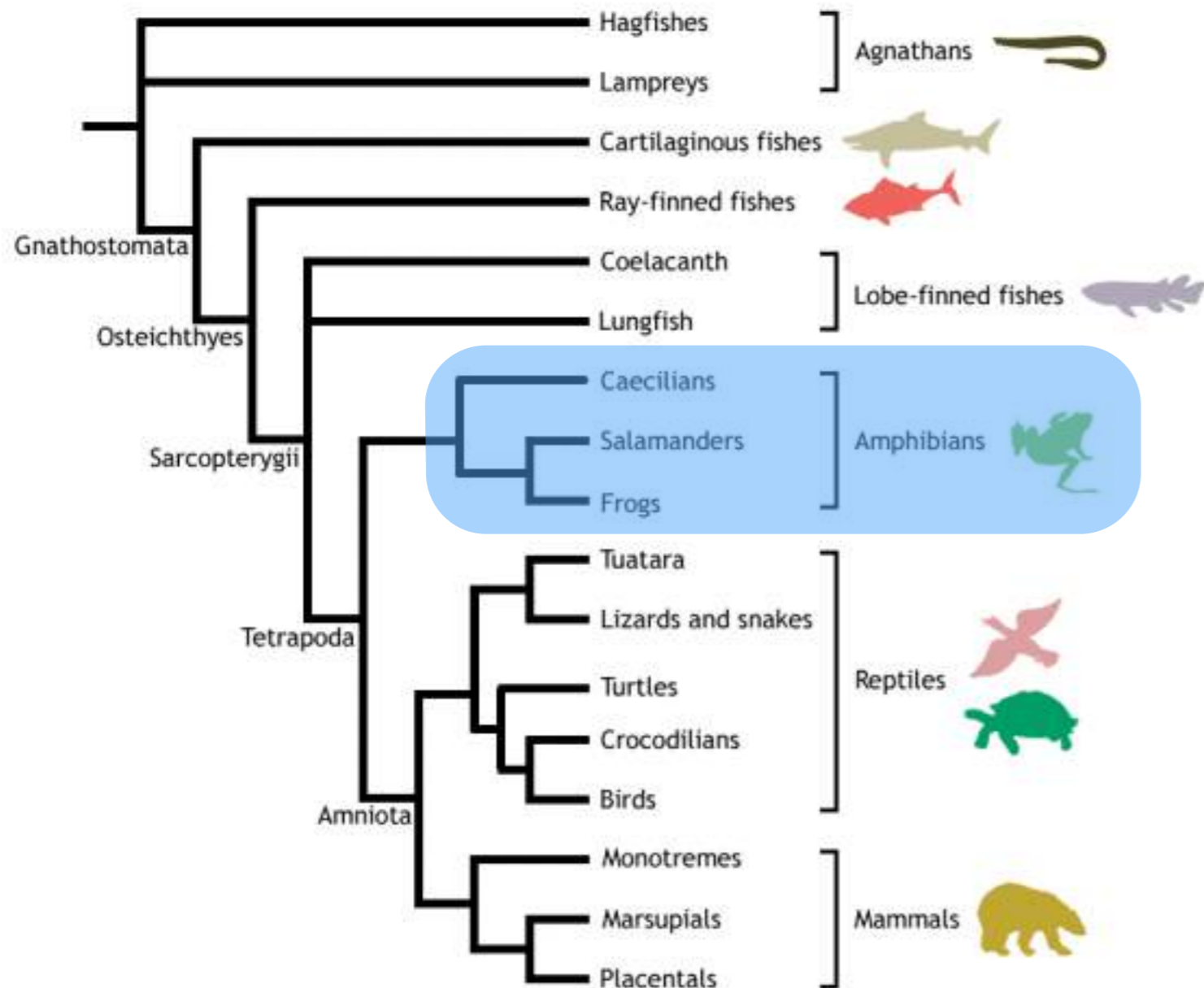
Herpetology Systematics

- Oddly enough, animals studied by herpetologists aren't a clade!
- Mammals and birds are completely left out
- Herpetologists exist today because...
 - Historical precedent (people keep training those damn graduate students)
 - These animals share important similarities as terrestrial vertebrate ectotherms



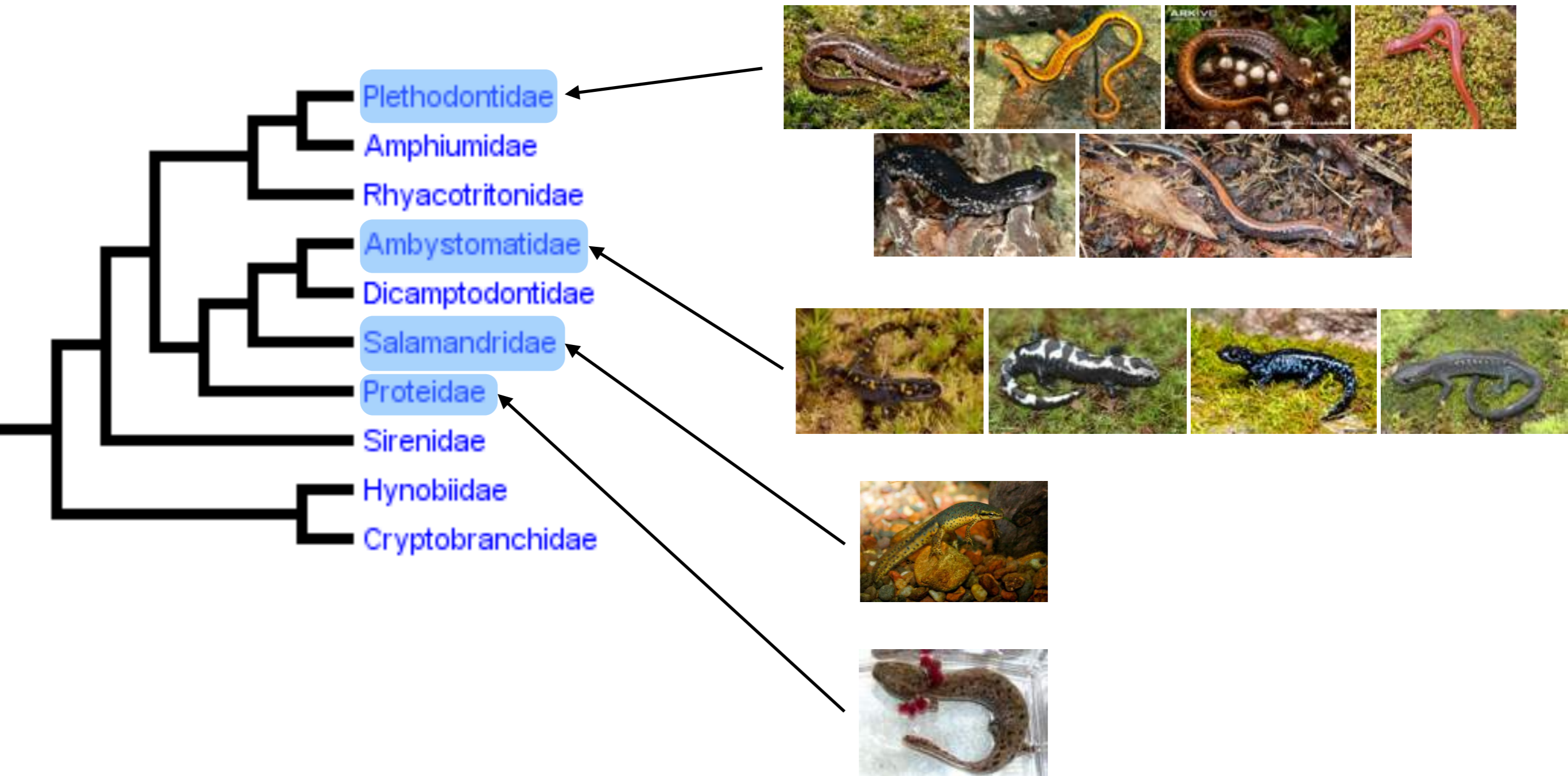
Animals studied by herpetologists

Lissamphibia

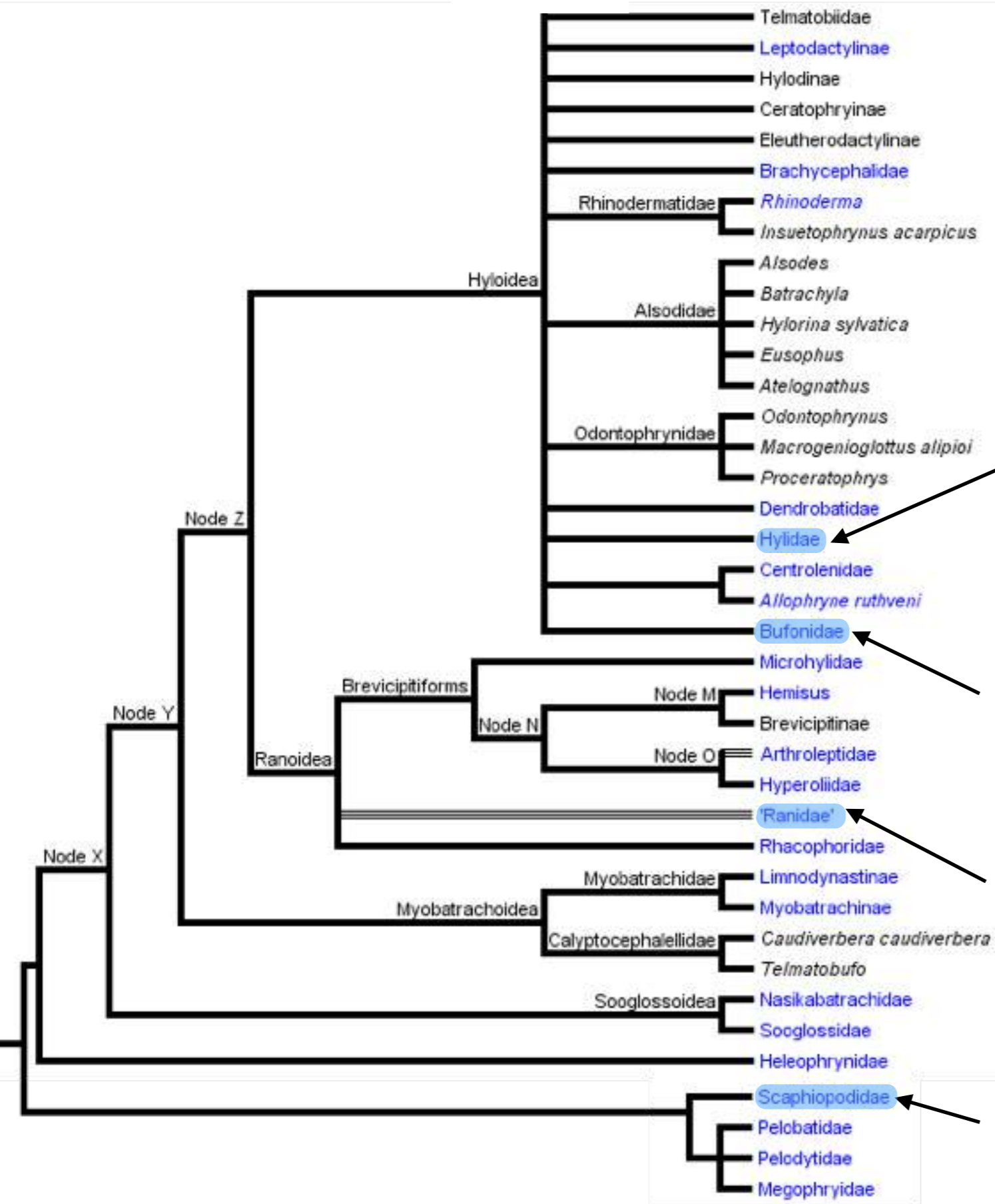


- Caecilians are sister to all other amphibians
- Salamanders and frogs are sister clades

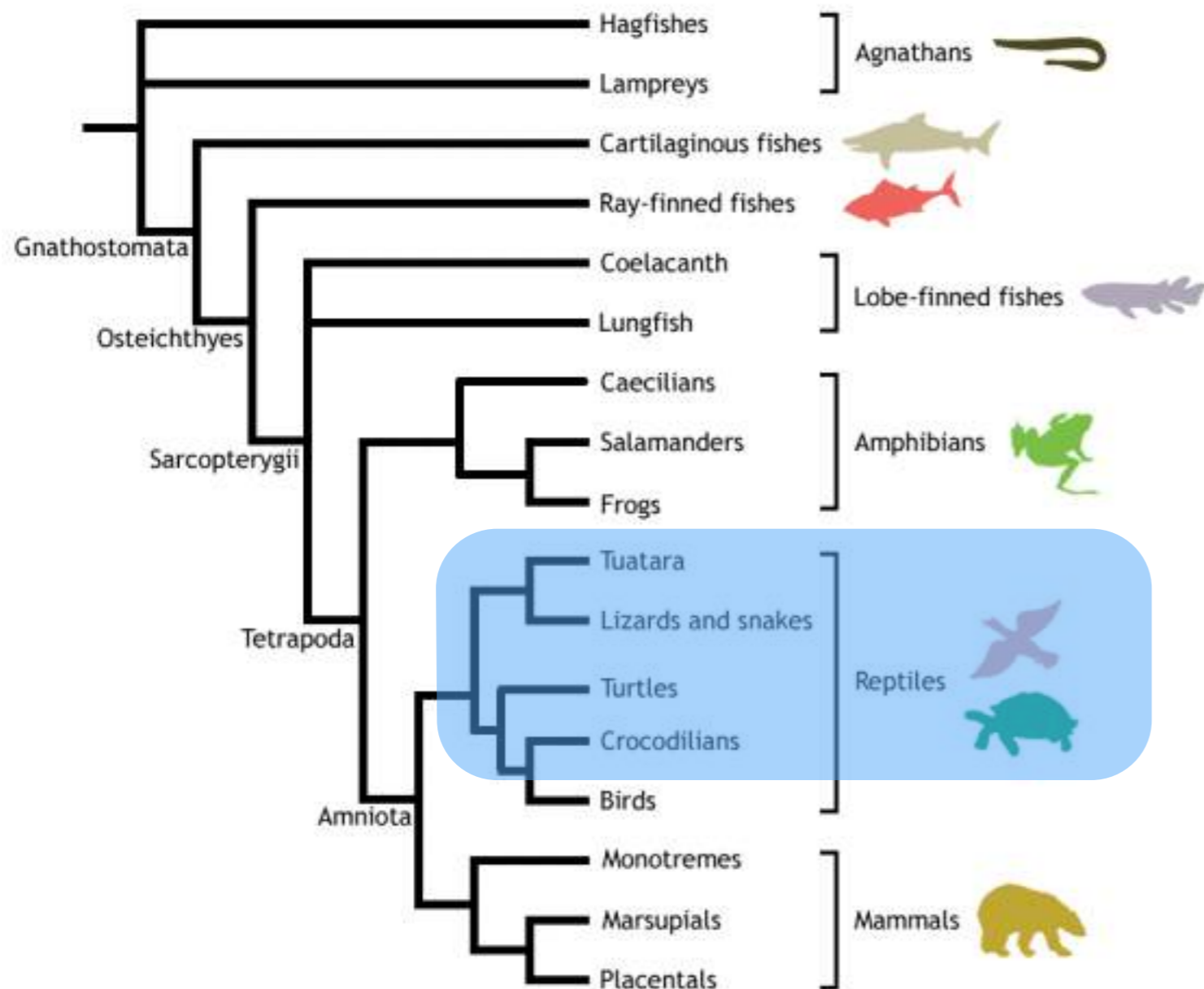
Salamanders (Caudata/Urodela)



Frogs (Anura)



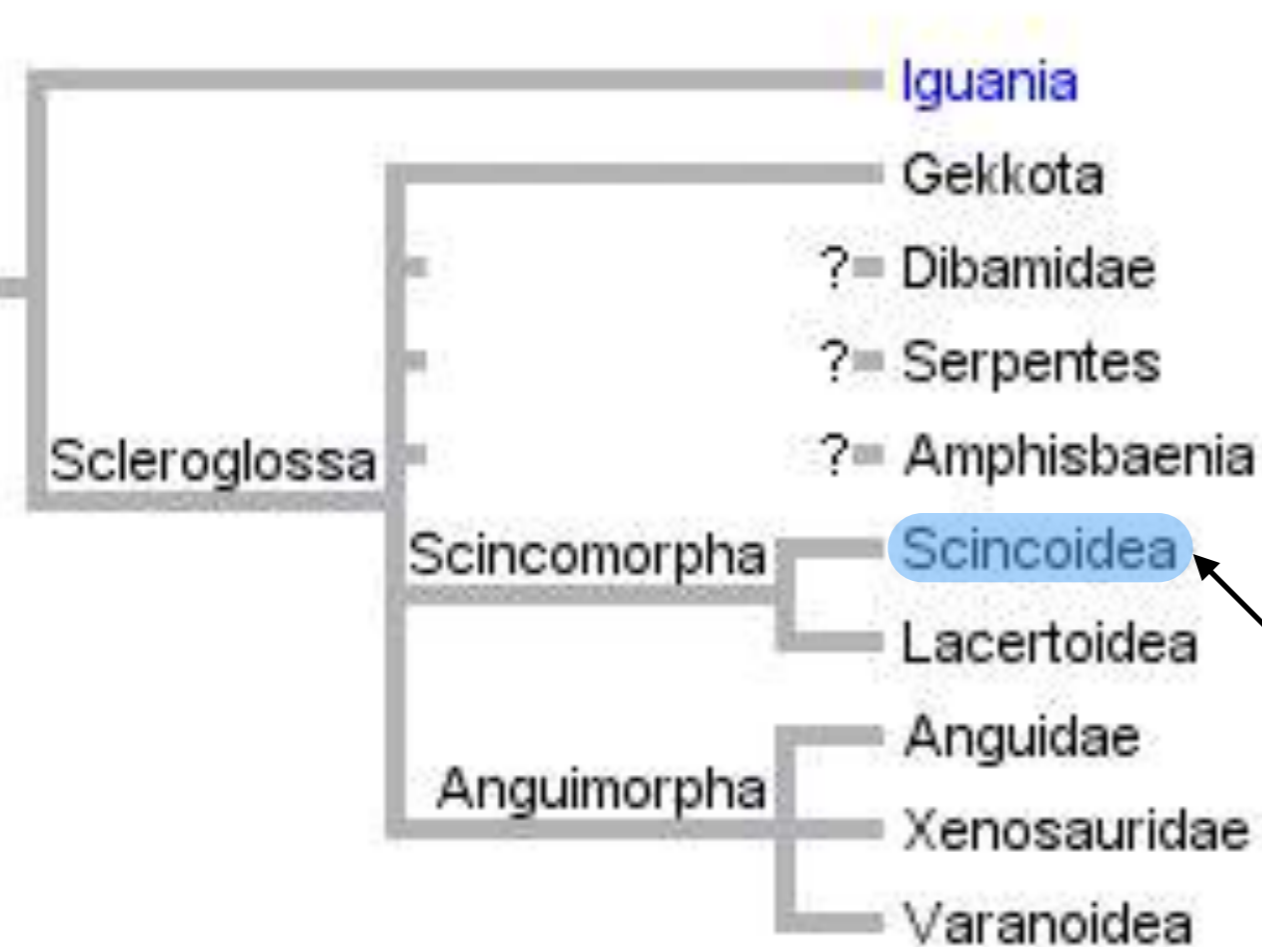
Amniota (Well, one half of it)



- Tuatara (a “living fossil” reptile from New Zealand) are sister to lizards and snakes
- Turtles are sister to crocodilians and birds

Lizards and Snakes (Squamata)

- The lizard group sister to snakes is currently being debated; it's either...
 - Varanid lizards (lizards like the Komodo dragon)
 - Iguanid lizards (lizards like the green iguana)



Snakes (Serpentes)

