



Evolution of the Diversity of Vertebrates



How to Make an Evolutionary Tree...then we'll do it, the right way!...for our own phylum, the Vertebrates!

PBS' Nova has this [Game about how to make Evolutionary Trees or Phylogenies](#).

I just want you to explore this website game, completely...make it through all the levels. I suggest creating an account (you can use Google or Facebook) so that you can keep your progress. Take a screen shot showing you completed the game and put that in a document with a short paragraph about what you saw in the game and another short paragraph with your opinion of the game.

There are so many misunderstandings about the evolutionary history of vertebrates, our very own animal phylum, and so I want to take you through the various groups and big events, but you need to understand how we put together an evolutionary tree and understand who is related to whom! That's what this website should do for you. I'll be curious to see what you think.



Additional Resources

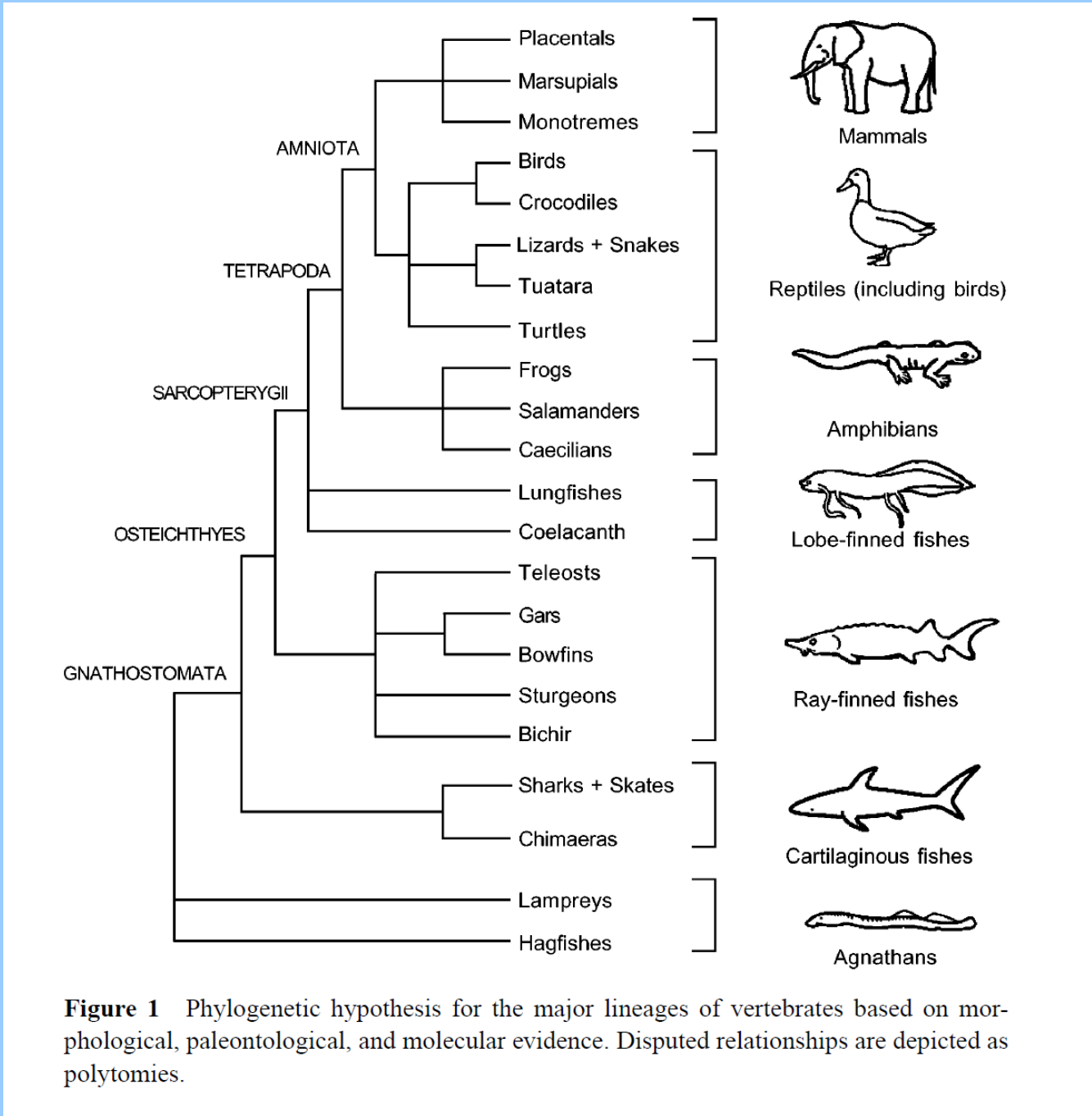
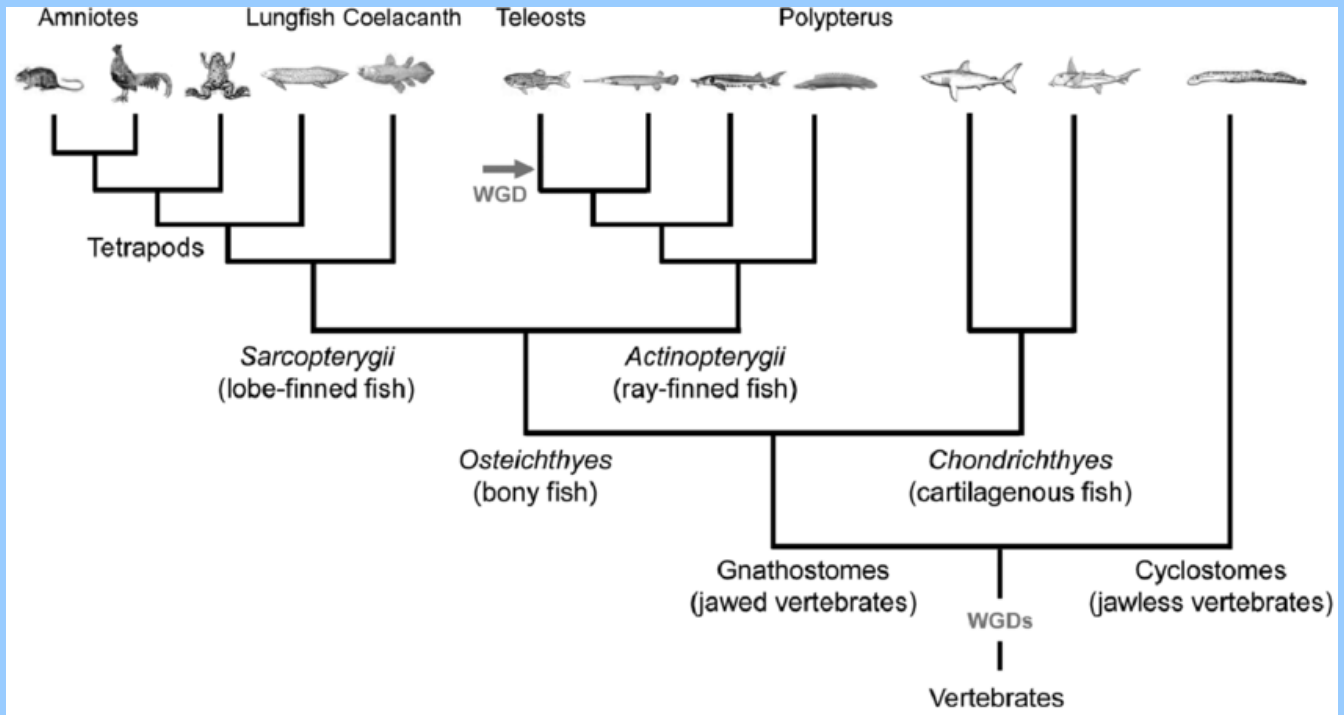
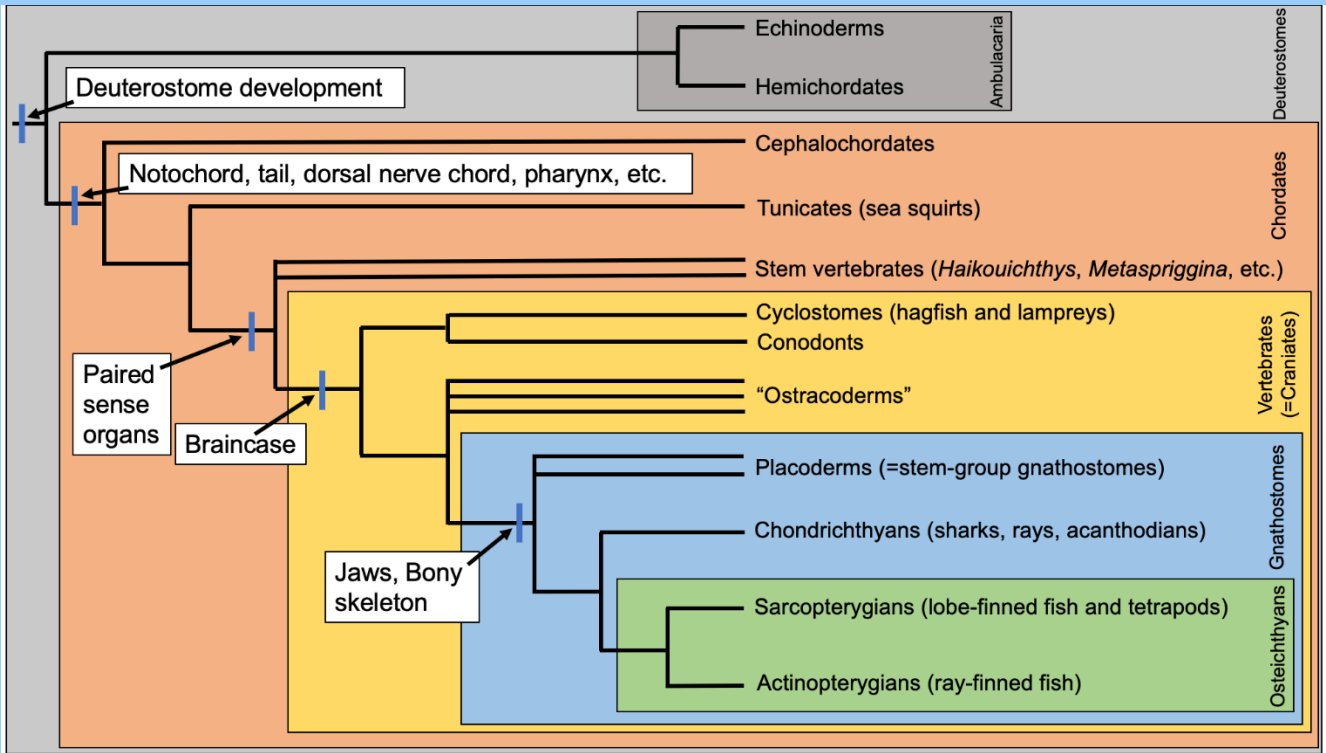


Figure 1 Phylogenetic hypothesis for the major lineages of vertebrates based on morphological, paleontological, and molecular evidence. Disputed relationships are depicted as polytomies.

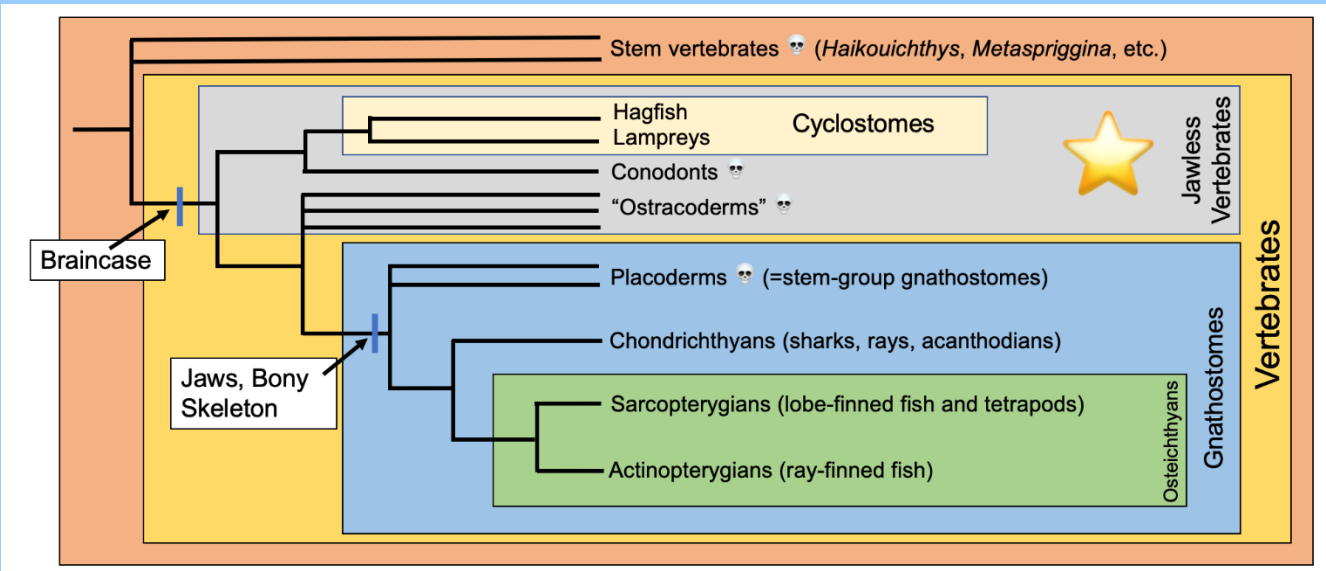
From:
 Meyer, A., & Zardoya, R. (2003). Recent advances in the (molecular) phylogeny of vertebrates. *Annual Review of Ecology, Evolution, and Systematics*, 34(1), 311-338.
<https://www.annualreviews.org/doi/abs/10.1146/annurev.ecolsys.34.011802.132351>



Yamamoto, K., Bloch, S., & Vernier, P. (2017). New perspective on the regionalization of the anterior forebrain in Osteichthyes. *Development, growth & differentiation*, 59(4), 175-187. <https://www.researchgate.net/publication/316690258> New perspective on the regionalization of the anterior forebrain in Osteichthyes



From Digital Atlas of Ancient Life. Chapter on Basal Chordate Groups
<https://www.digitalatlasofancientlife.org/learn/chordata/>



From Digital Atlas of Ancient Life. Chapter on Basal Chordate Groups
<https://www.digitalatlasofancientlife.org/learn/chordata/jawless-vertebrates/>