EEB 6485 Figure Commentary 1

Nick Van Gilder

Chart, diagram

Description automatically generated

Jadin, R. C., Orlofske, S. A., Jezkova, T., & Blair, C. (2021). Single-locus species delimitation and ecological niche modelling provide insights into the evolution, historical distribution and taxonomy of the Pacific chorus frogs. *Biological Journal of the Linnean Society*.

This figure is one of the stronger aspects of a paper that is on shaky grounds as it is (using mtDNA to delimit species-level relationships in a group of amphibians without comparing to nrDNA sequences/phylogenies). However, I liked this figure because I’ve not seen a paper before that utilized color bars to indicate which branch tips of a consensus tree collapse into species-level units under different methods of analysis. In this case, a BEAST consensus tree generated from mtDNA is compared against three other methods: single and multi-rate PTP, and GMYC. It allows for a quick understanding of how conservative each method is in delineating species in this group of frogs.

Diagram

Description automatically generated

Robert, A., Colas, B., Guigon, I., Kerbiriou, C., Mihoub, J. B., Saint‐Jalme, M., & Sarrazin, F. (2015). Defining reintroduction success using IUCN criteria for threatened species: a demographic assessment. *Animal Conservation*, *18*(5), 397-406.

I think that this figure is missing the mark in several ways: it is attempting to convey the probability of extinction for six different simulated populations of re-introduced organisms of differing population size. Aside from being incredibly grainy, which doesn’t help matters, this figure is so busy and crunched it makes it hard to disseminate any differences between the smallest populations that were simulated. I think it should have been re-sized (the points), and the Y-axis rescaled in order to separate at least the initial points of each line. Granted, this is a simple graph that is more or less understandable at a glance trend-wise, but teasing out any differences between the populations is made more difficult by the way the figure has been made.