notes on Bd

16 January 2022

- general info here and here
- most chytrid fungi are harmless **saprophytes** or parasites of microbes, but a few are pathogenic on amphibians
- *Batrachochytrium dendrobatidis* (Joyce Longcore)
- life cycle: *thallus* → *zoosporangia* (frog skin) → *zoospores* (free living, motile, aquatic) → ...
- alternative hosts/environmental reservoir?
- where did it come from?
  - **novel pathogen hypothesis**: mutation/speciation + dispersal
  - **tipping point hypothesis**: in populations all the time, but something happened to make it virulent
- extinction paradox (De Castro and Bolker 2005)
  - **extirpation** (local extinction) vs global ('true') extinction
  - **density-dependent** parasites can't cause host extinction (in simple theoretical models!)
  - alternatives: density-independence, small populations, reservoirs

References

De Castro, Francisco, and Benjamin Bolker. 2005. "Mechanisms of Disease-Induced Extinction." *Ecology Letters* 8 (1): 117–26. `https://doi.org/10.1111/j.1461-0248.2004.00693.x`.

Last updated: `r Sys.time()`