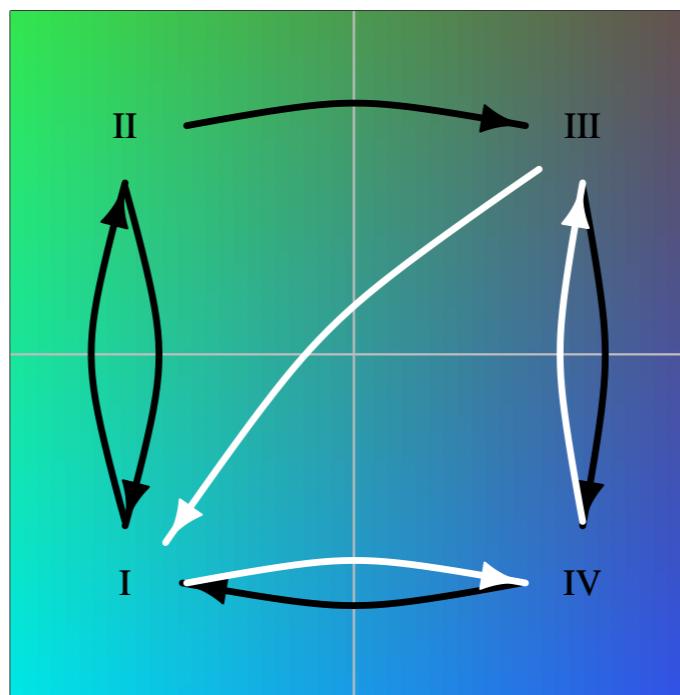


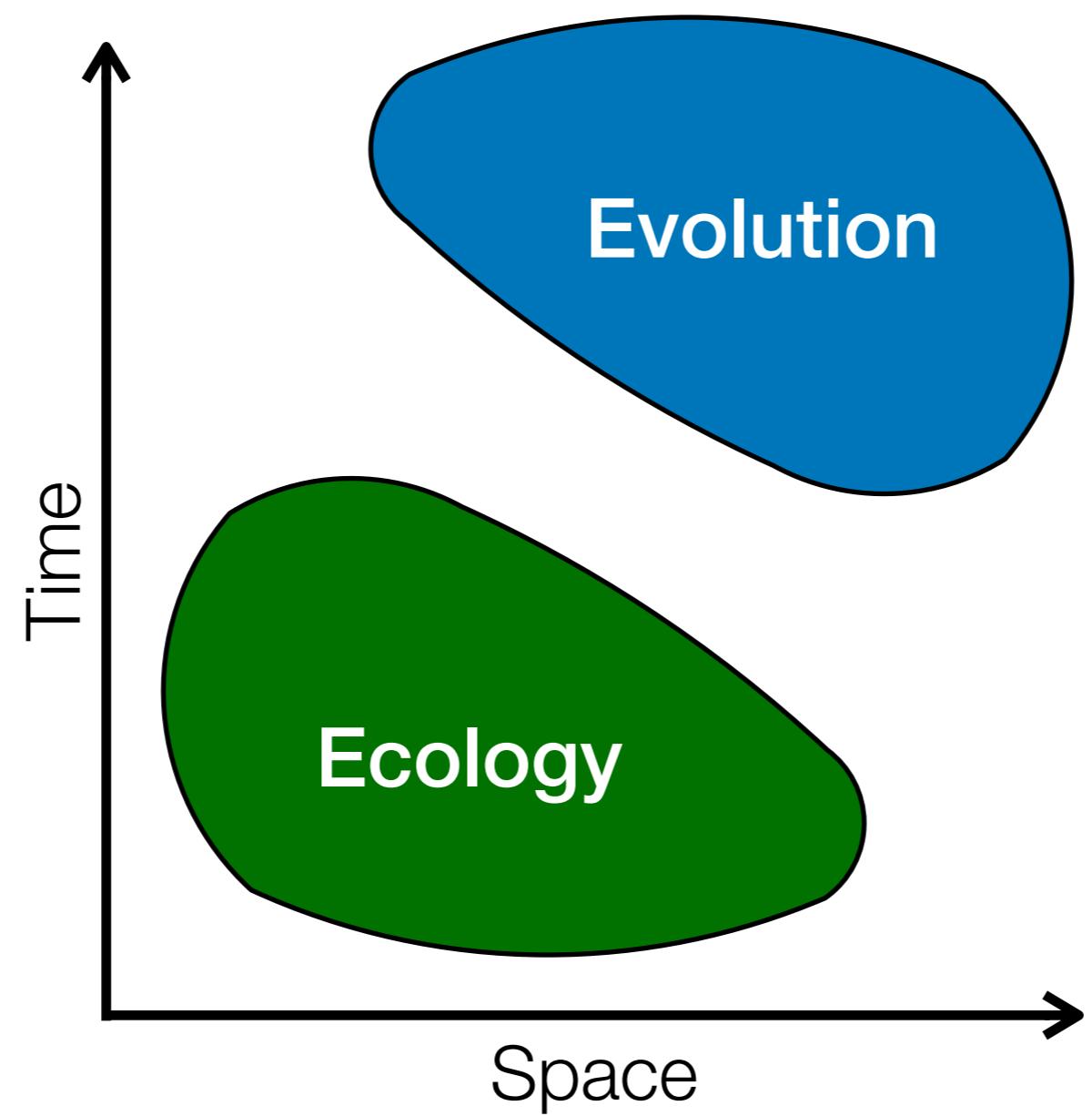
Linking evolutionary and ecological theory illuminate non-equilibrium biodiversity



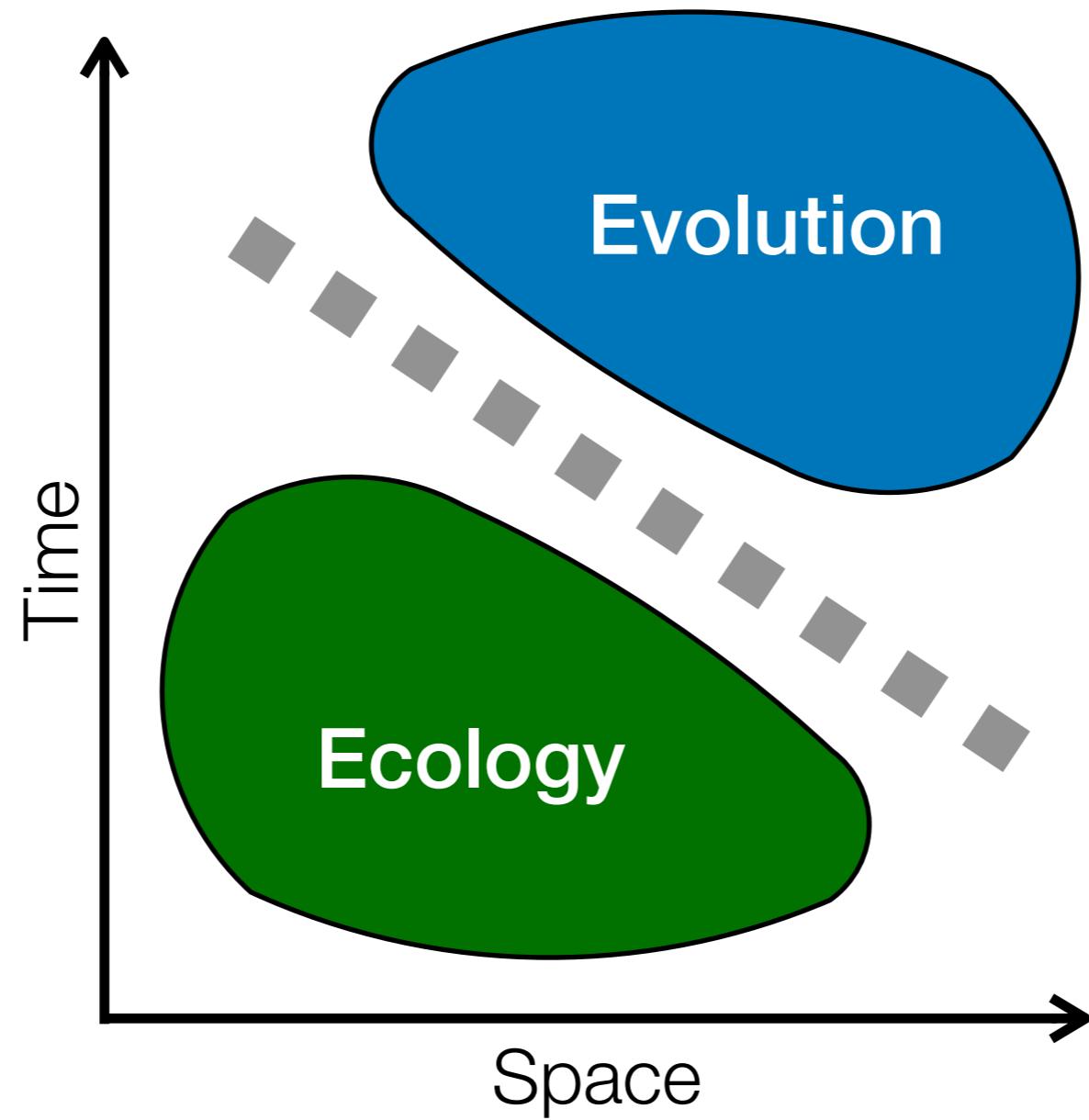
Andy Rominger^{1*} & Isaac Overcast²

¹Santa Fe Institute • ²City College of New York • *ajrominger.github.io

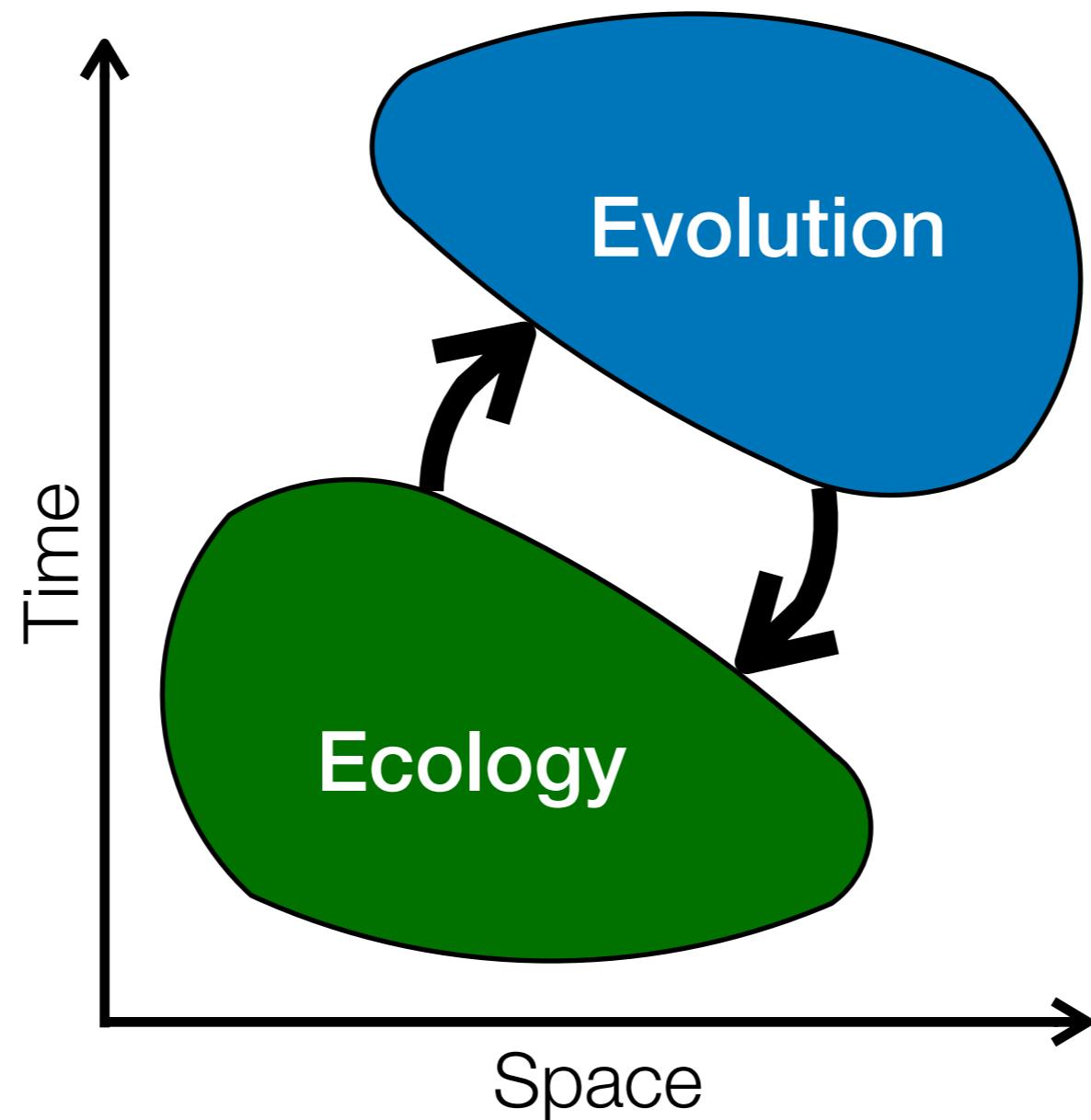
Gordon Research Seminar • 22 July 2018



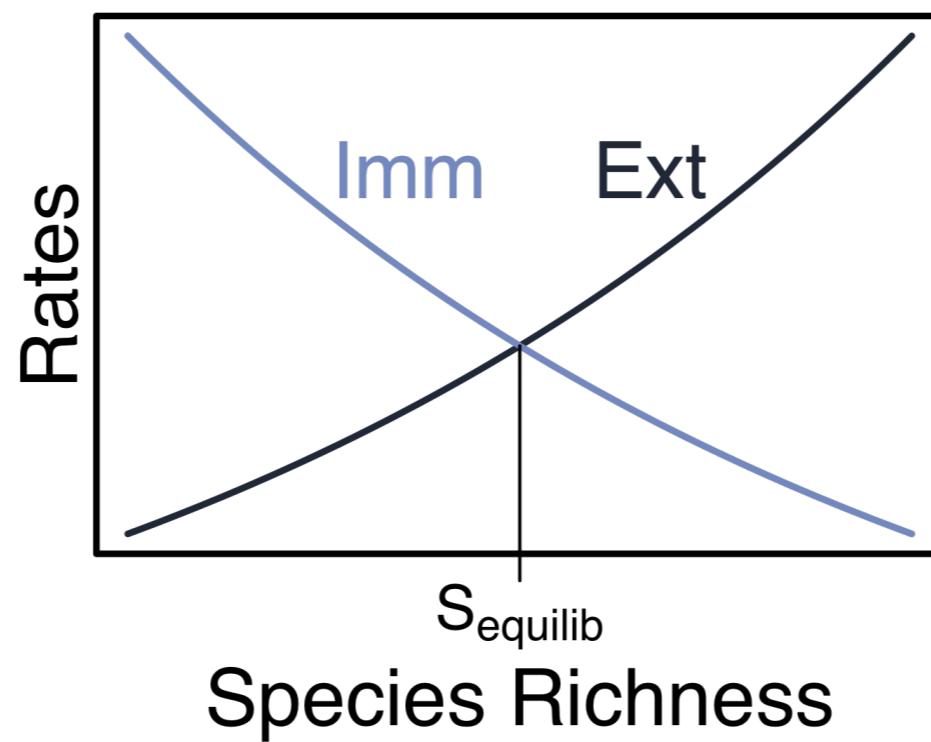
Equilibrium



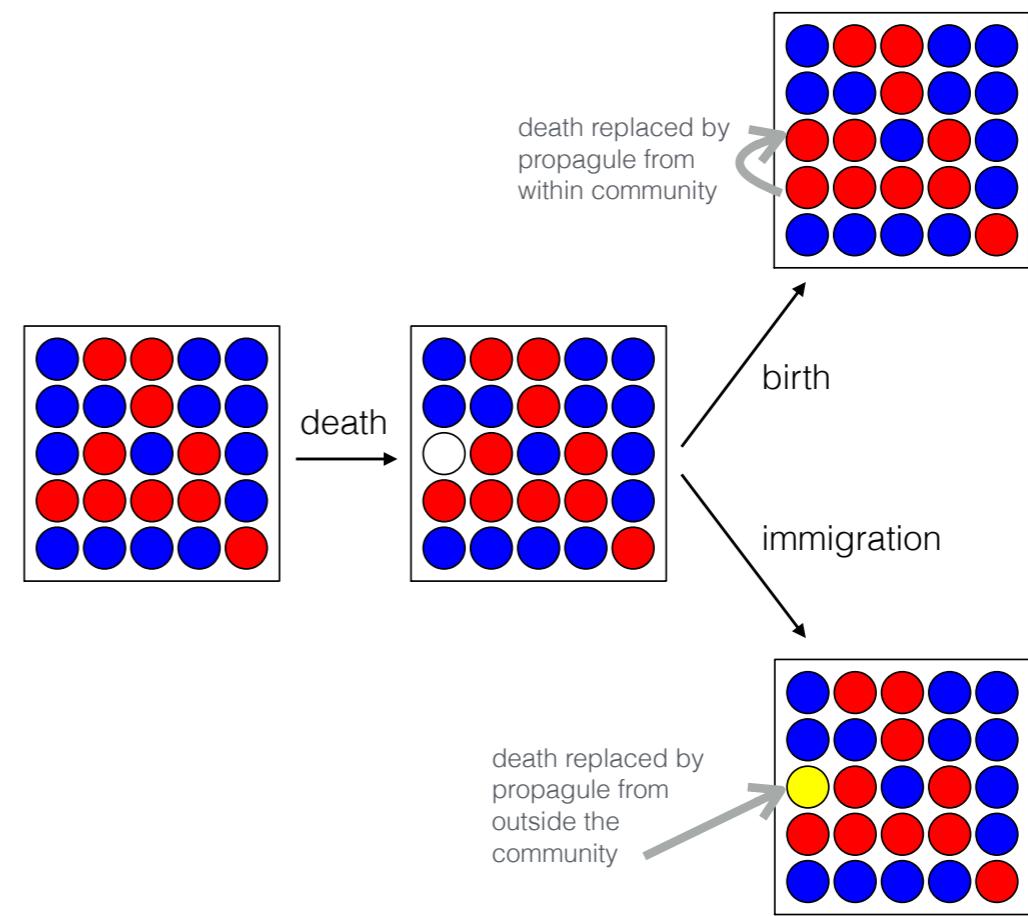
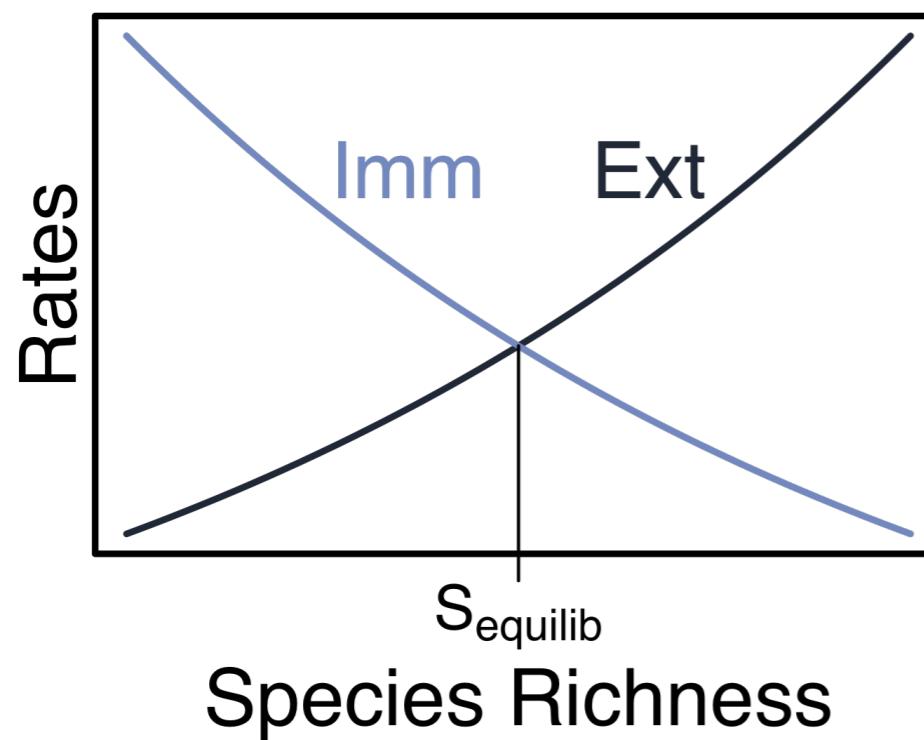
Non-equilibrium



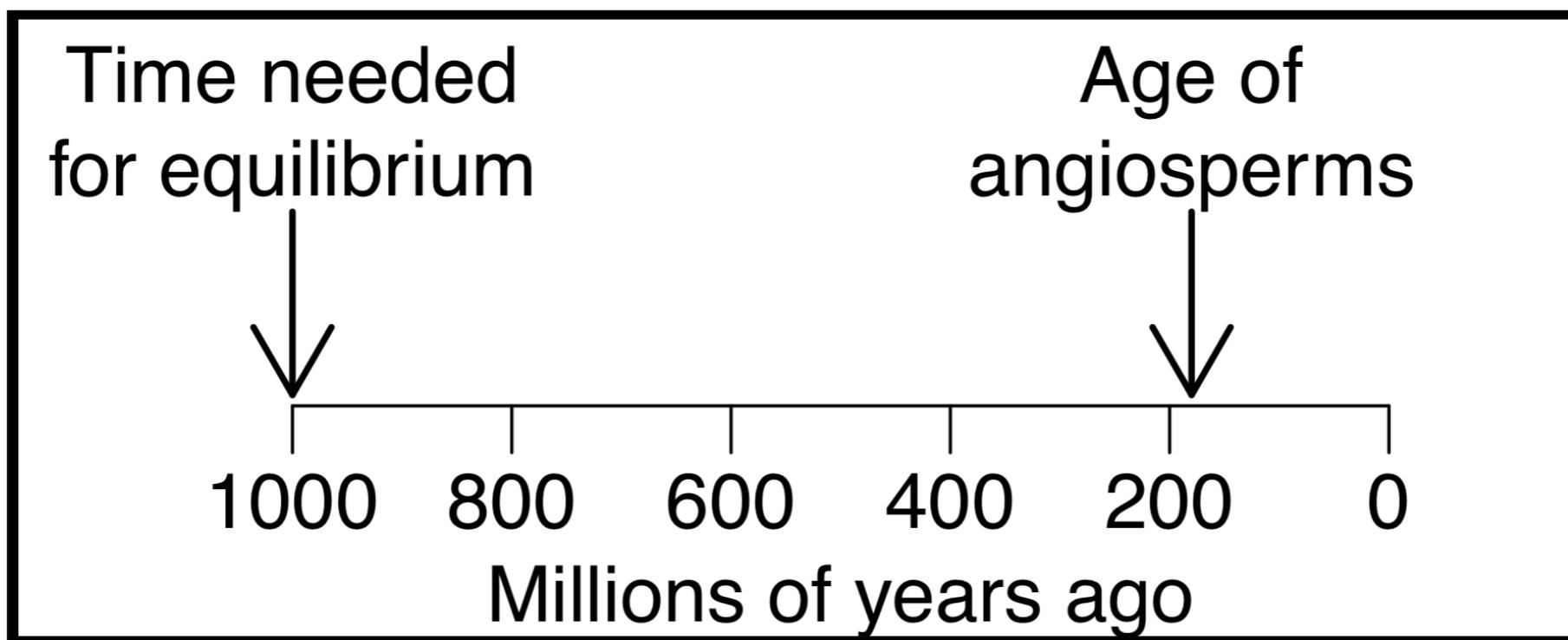
Equilibrium theories have a long history in biodiversity



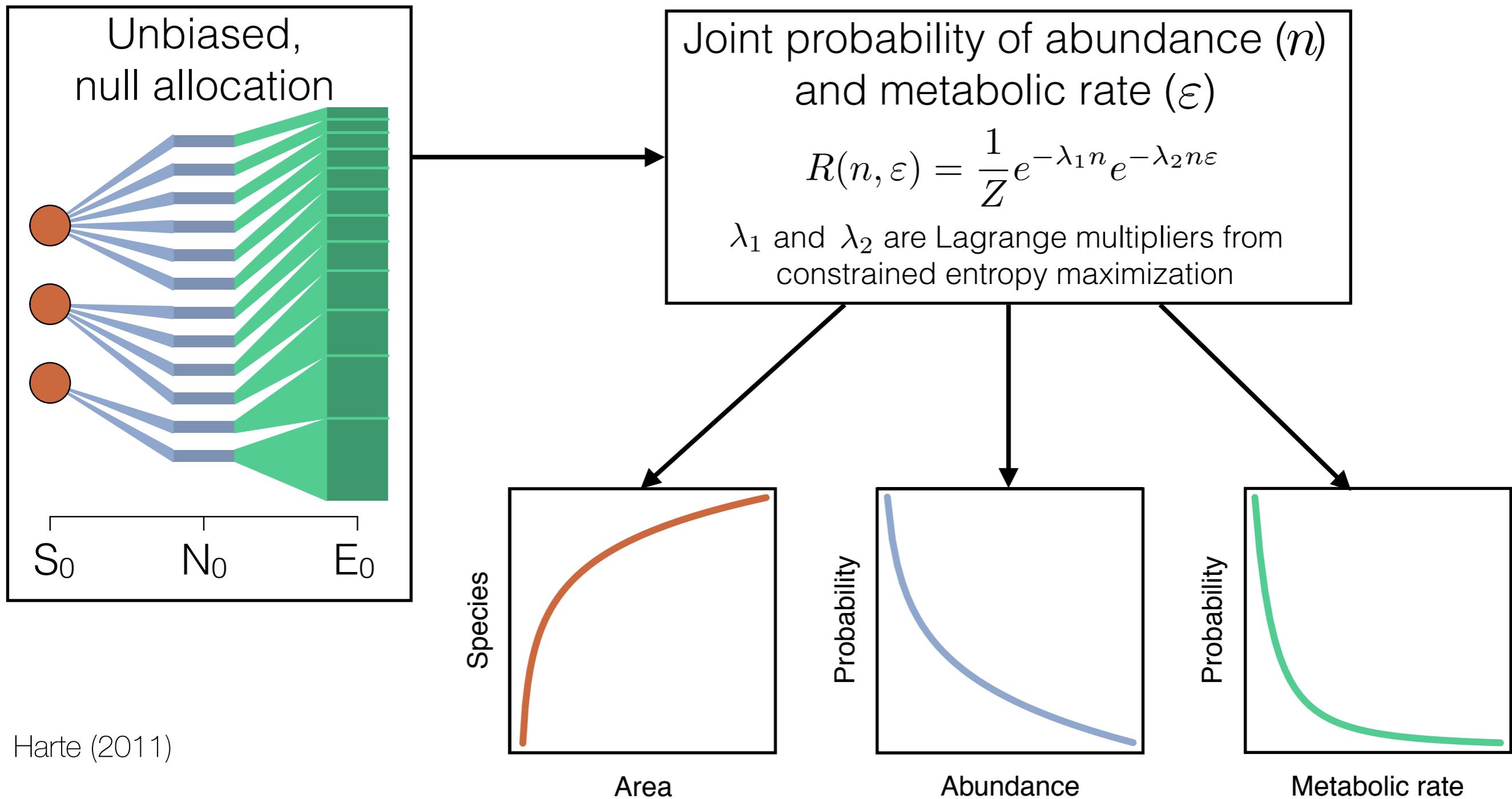
Equilibrium theories have a long history in biodiversity



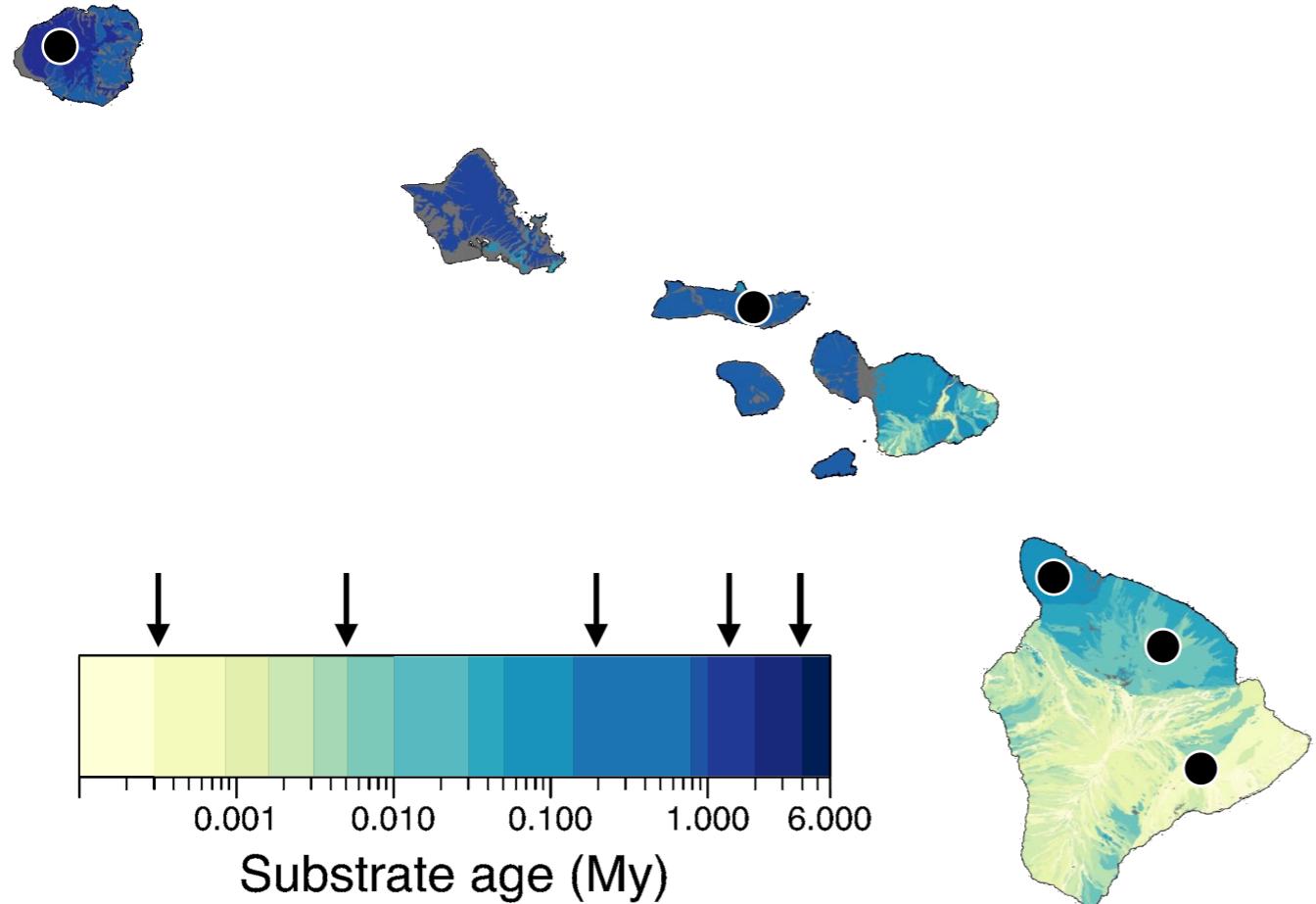
Historical perspectives demonstrate that equilibrium is often violated



Departures from theory highlight non-equilibrium

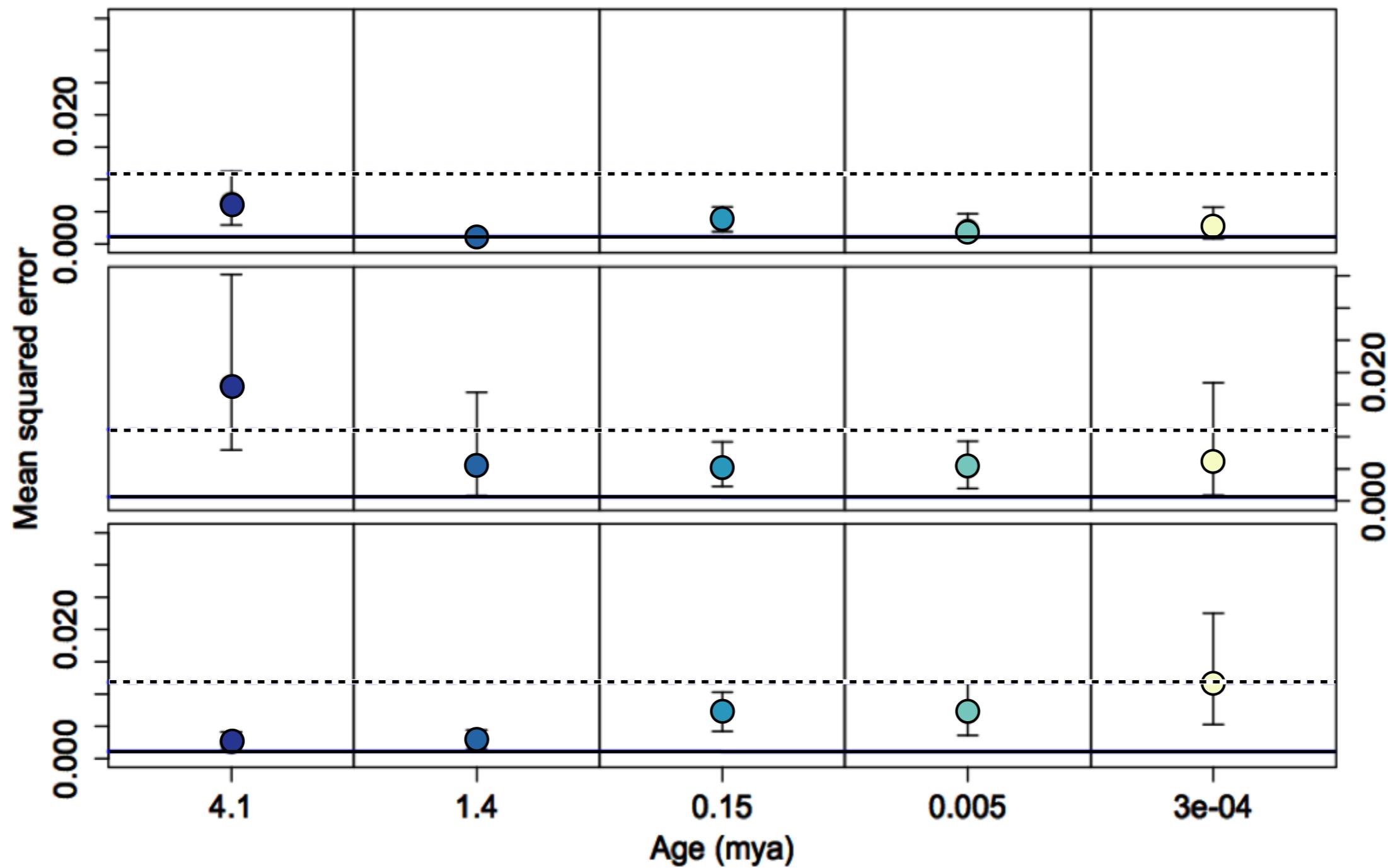


Departures from theory highlight non-equilibrium

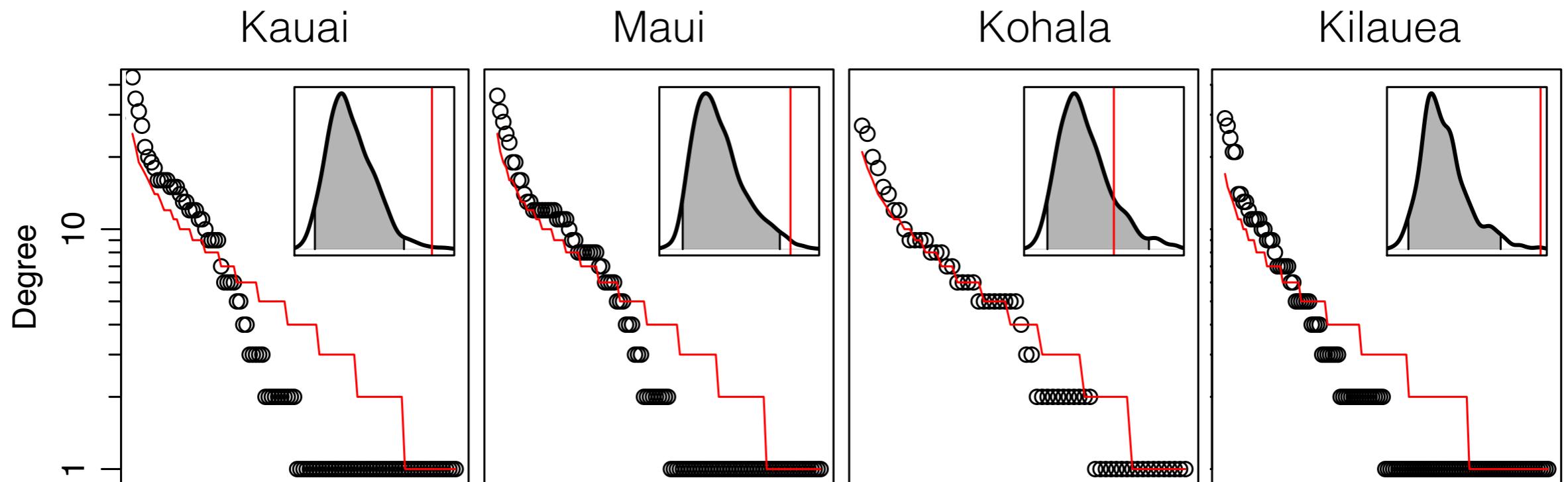


Data from Gruner (2007) Biol. J. Linn. Soc. 90: 551–570

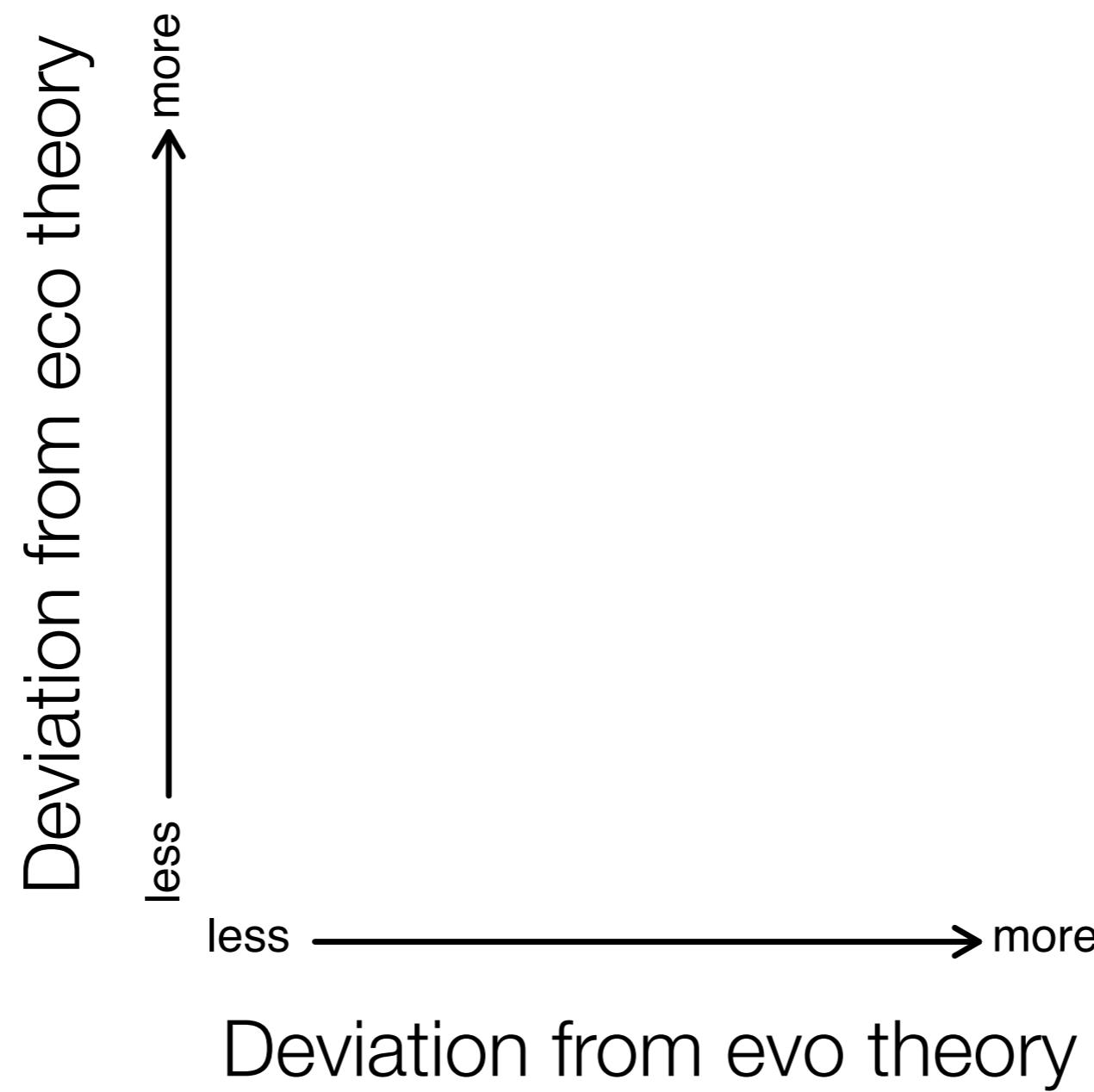
Departures from theory highlight non-equilibrium



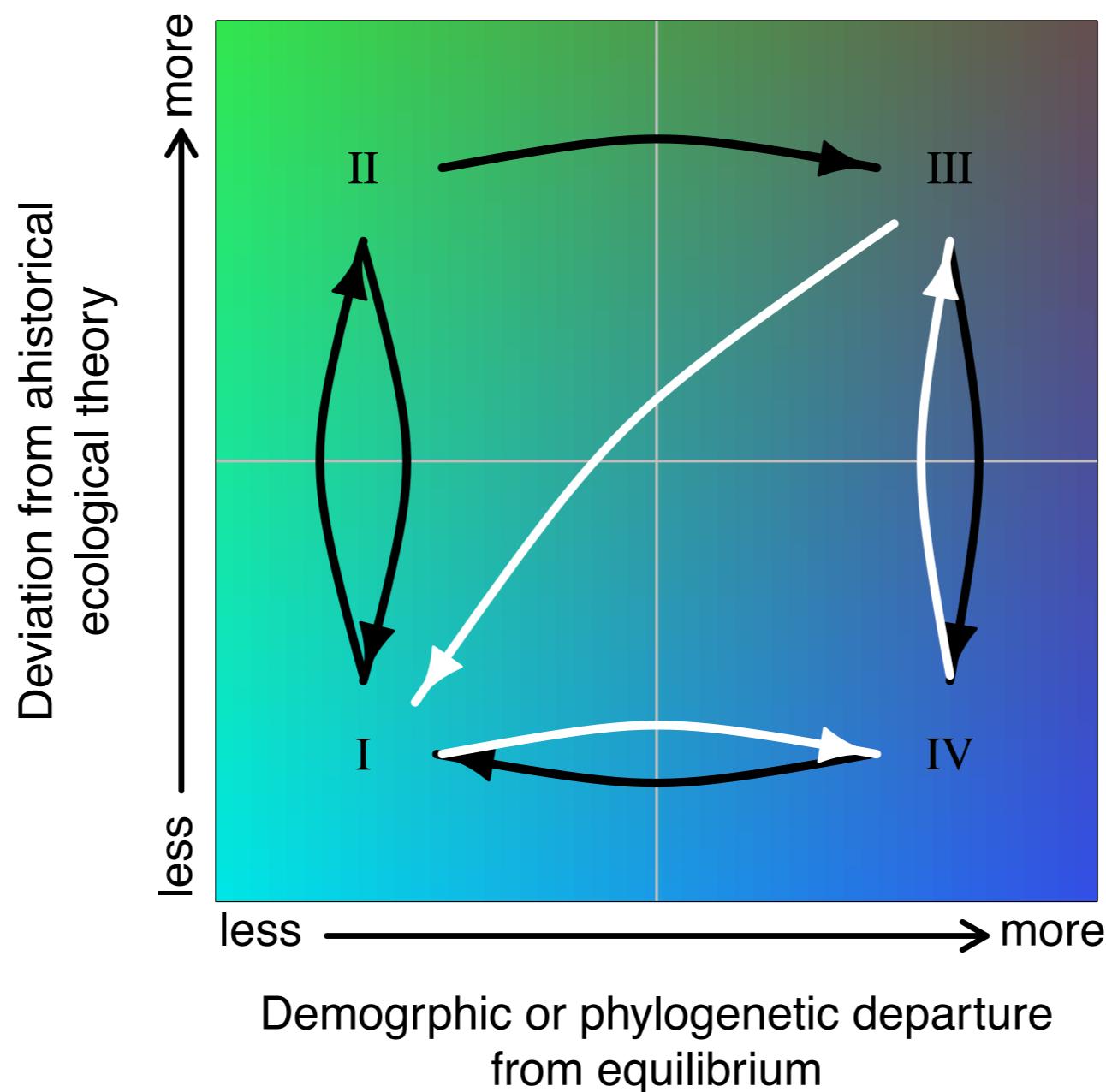
Departures from theory highlight non-equilibrium



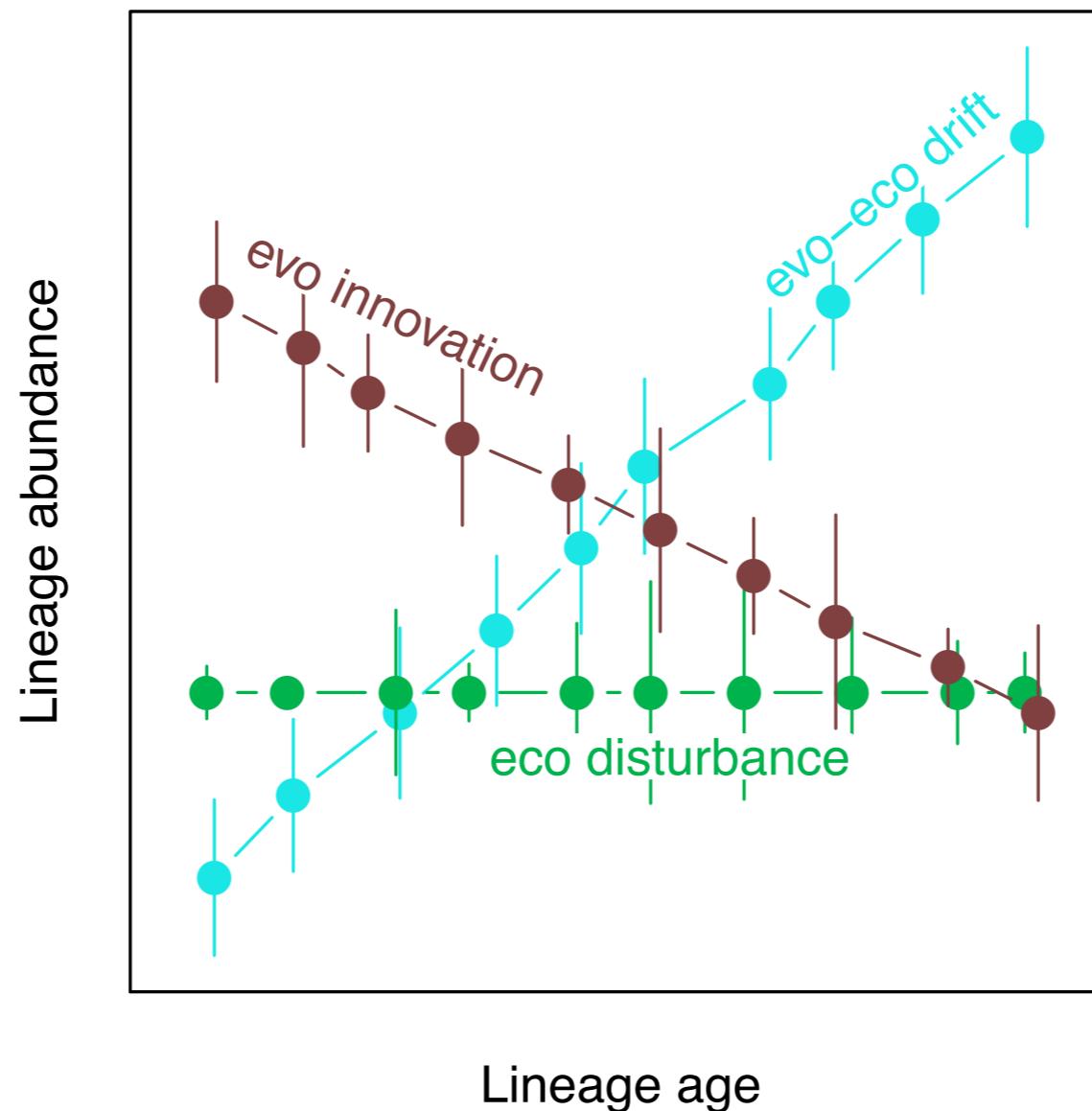
Combining evo and eco theories capture non-equilibrium



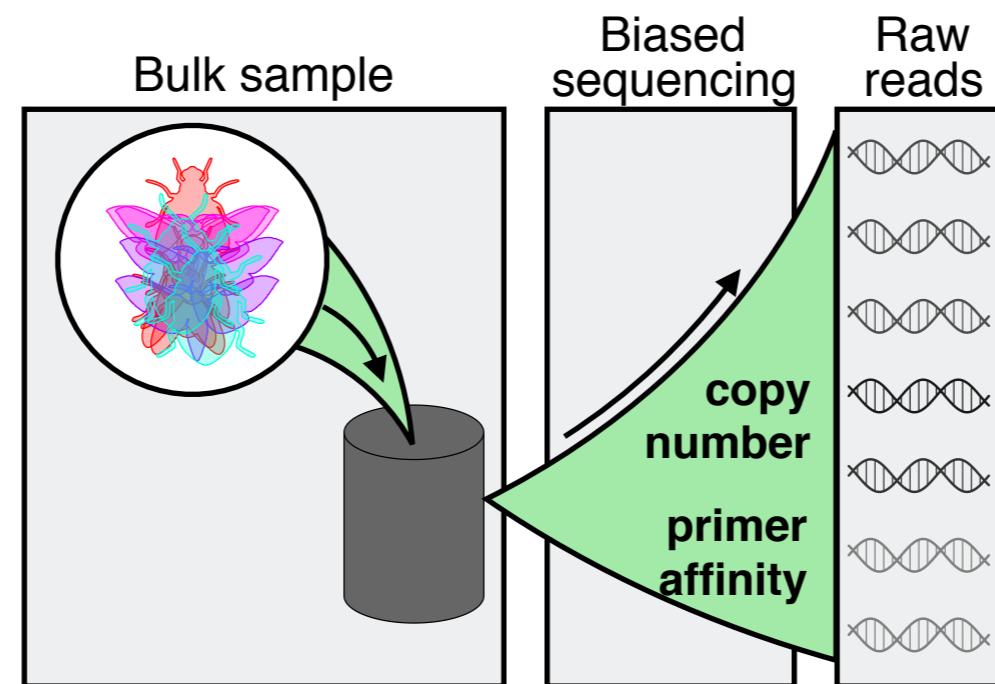
Combining evo and eco theories capture non-equilibrium



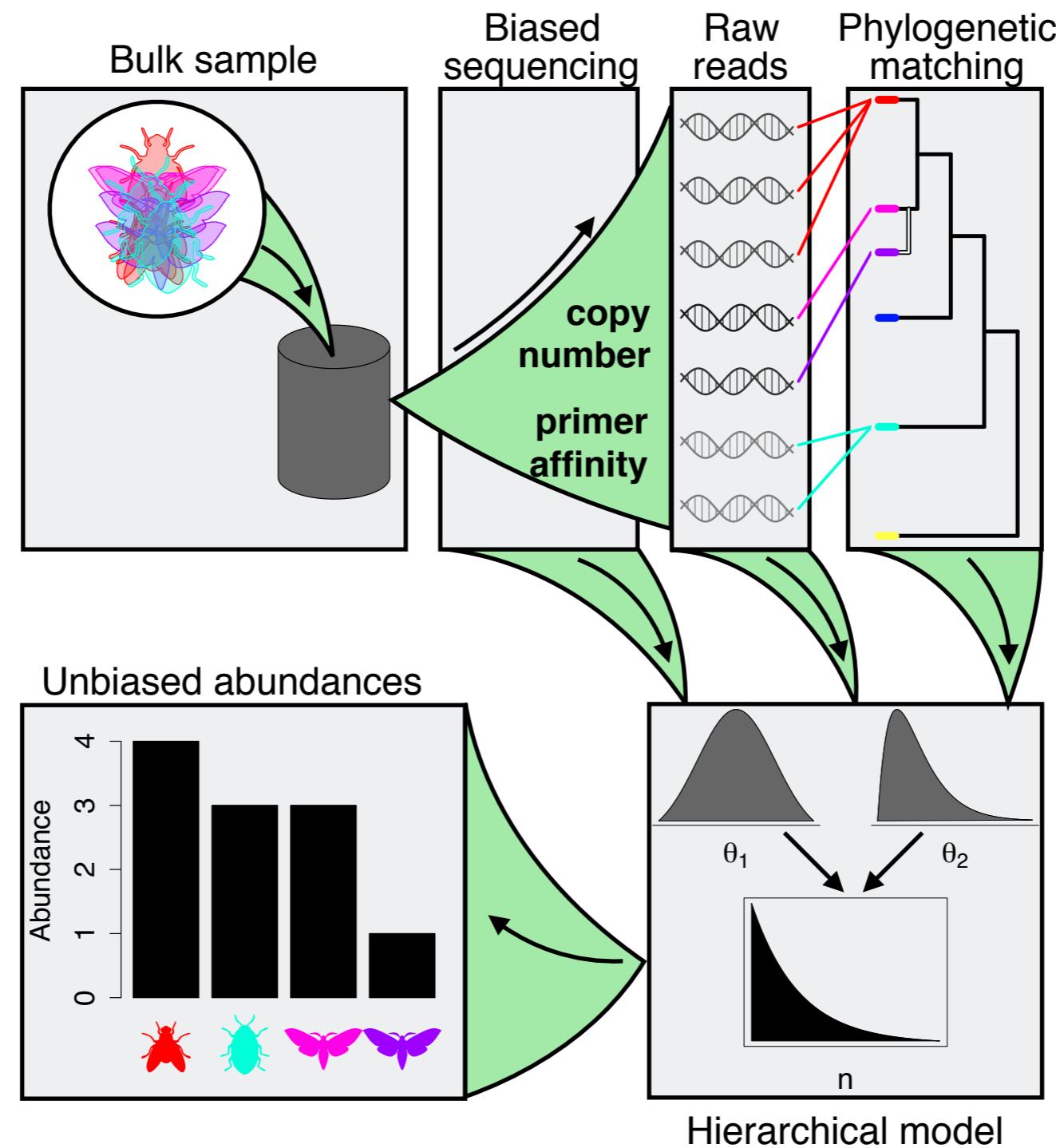
Combining evo and eco theories capture non-equilibrium



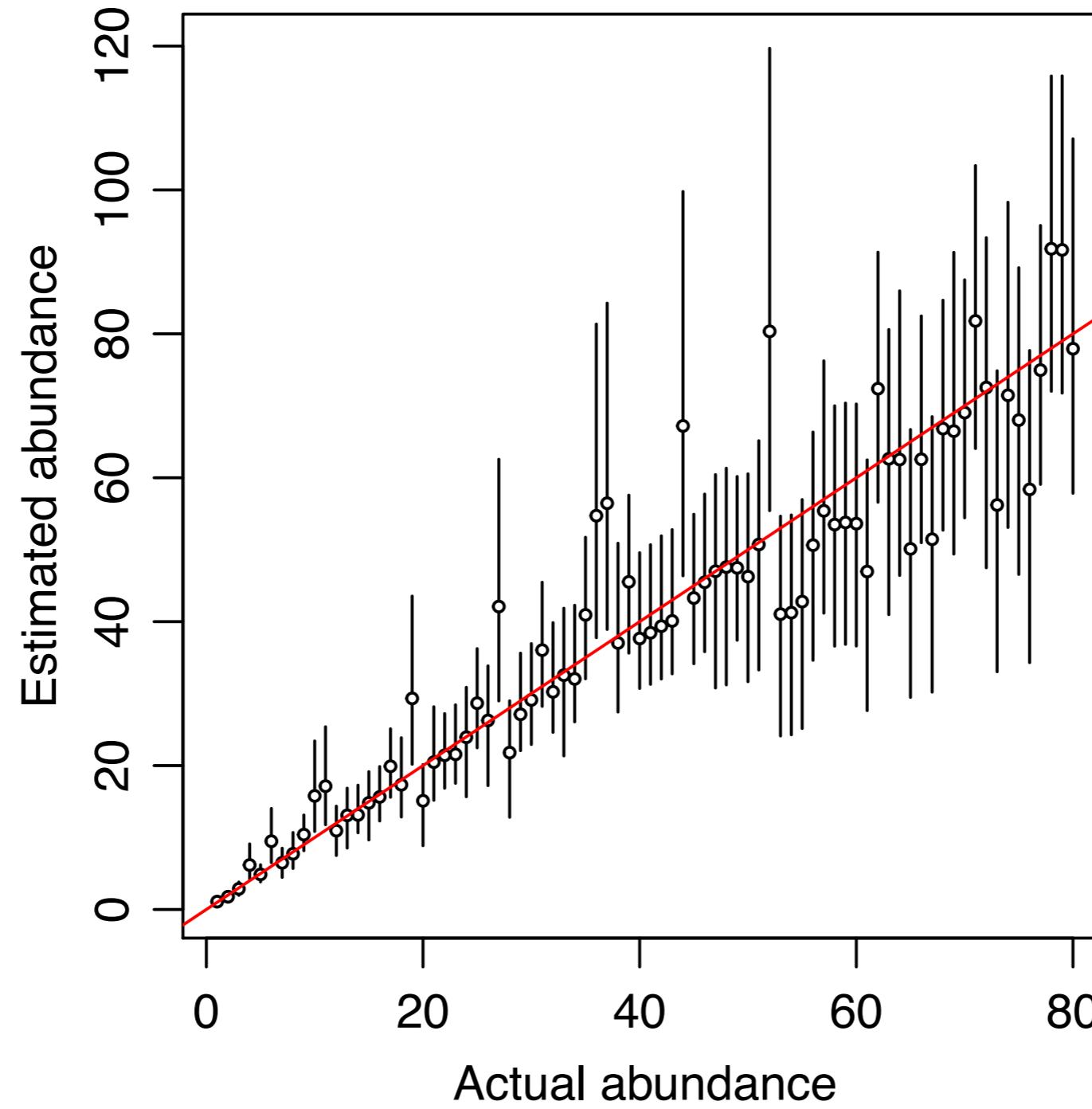
Metabarcoding (if done right) unlocks evo-eco data



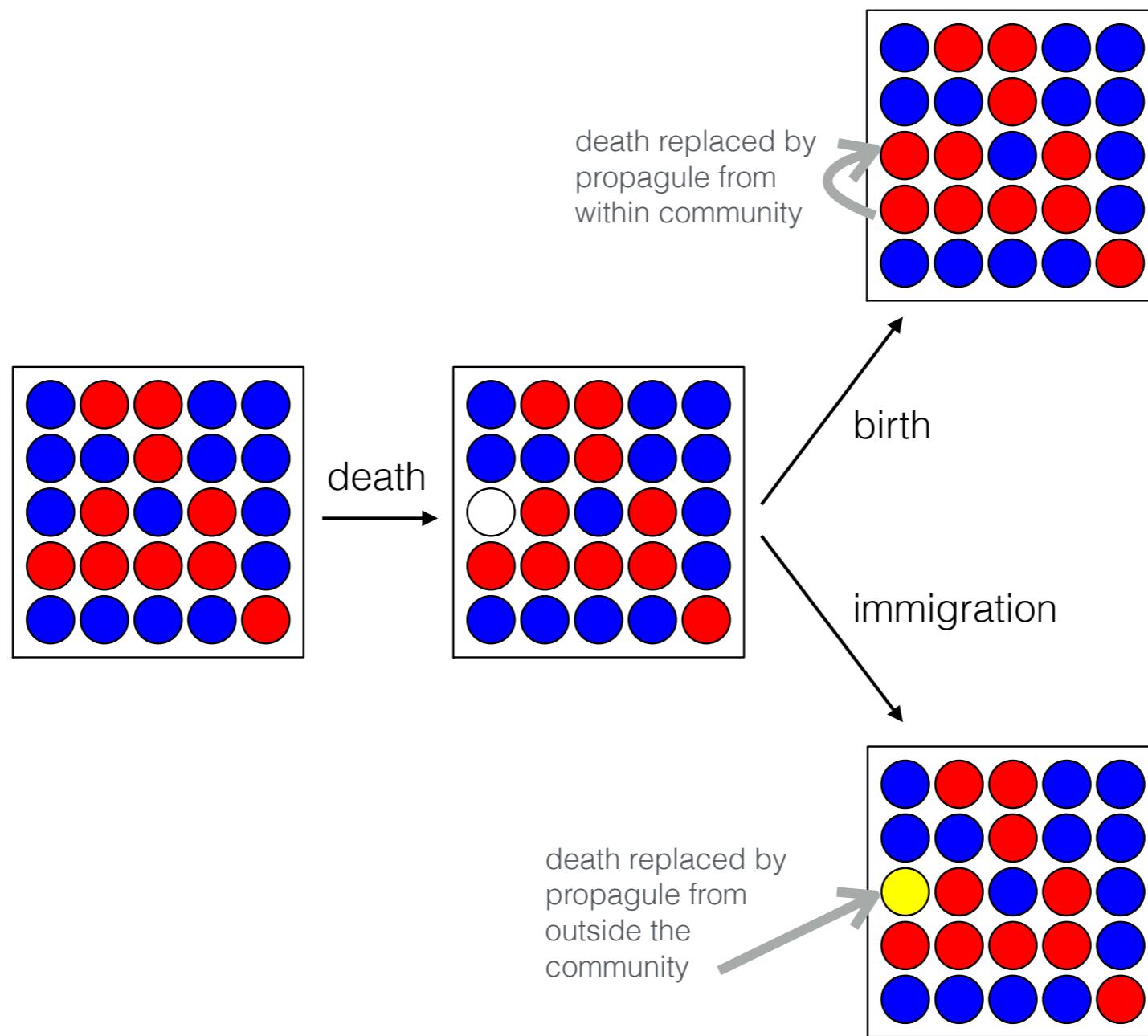
Metabarcoding (if done right) unlocks evo-eco data



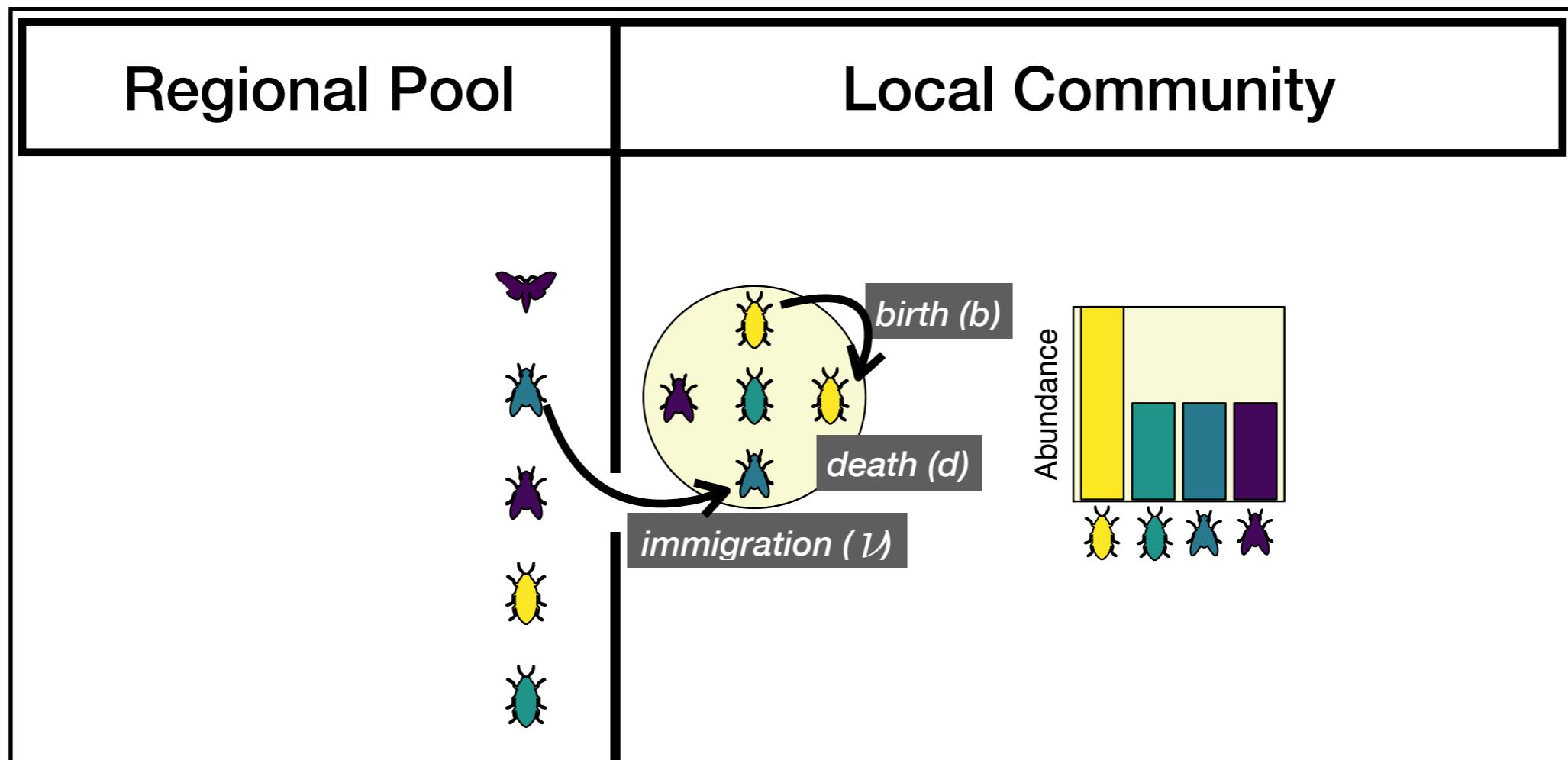
Metabarcoding (if done right) unlocks evo-eco data



Mechanistic evo-eco theory reveals cause of non-equilibrium

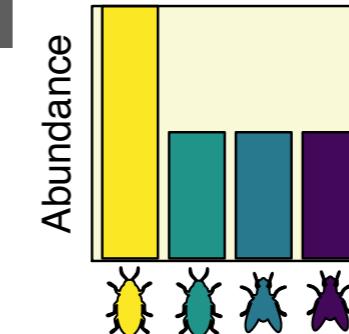
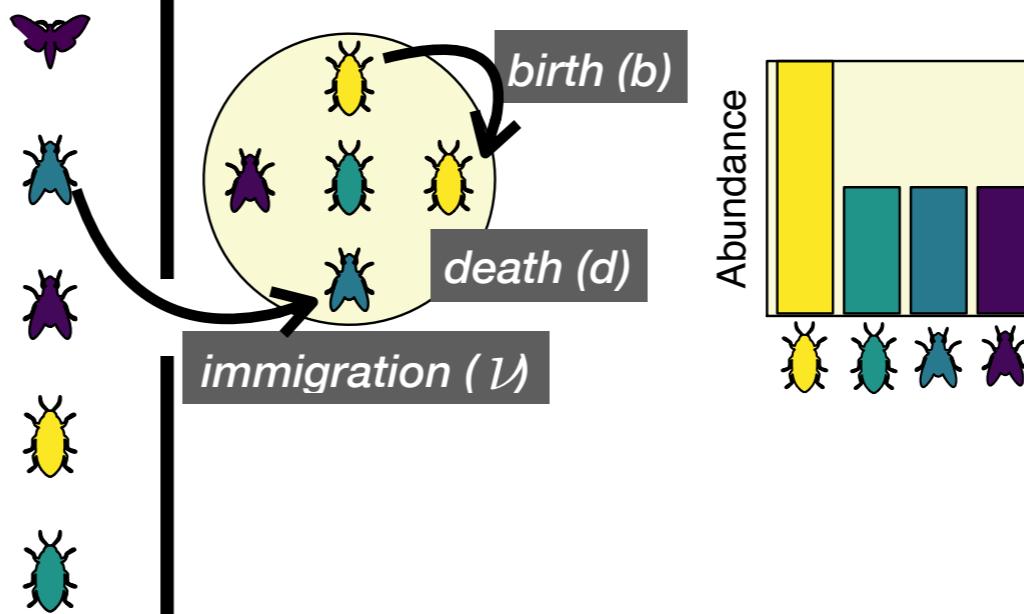


Mechanistic evo-eco theory reveals cause of non-equilibrium



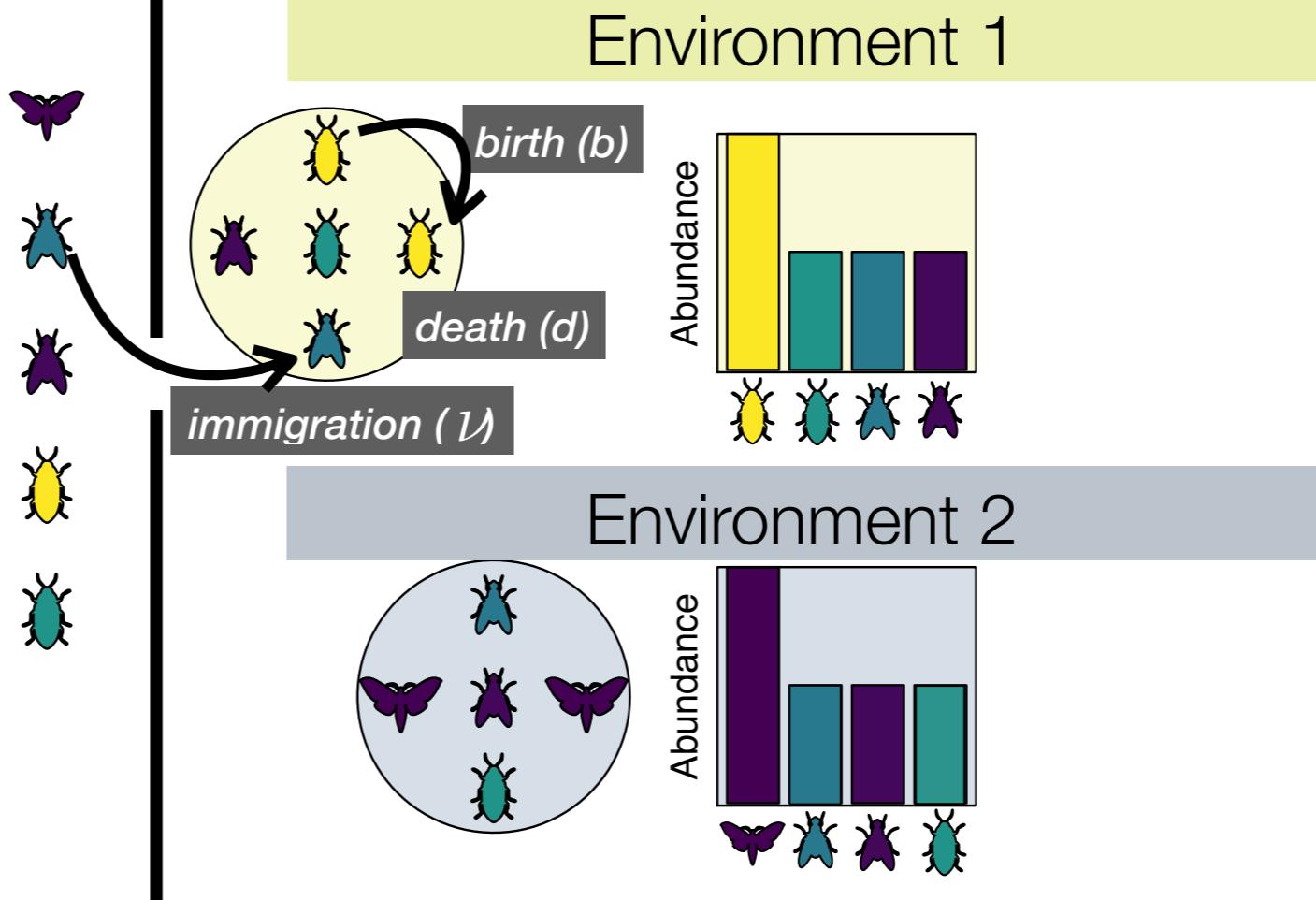
Regional Pool

Local Community



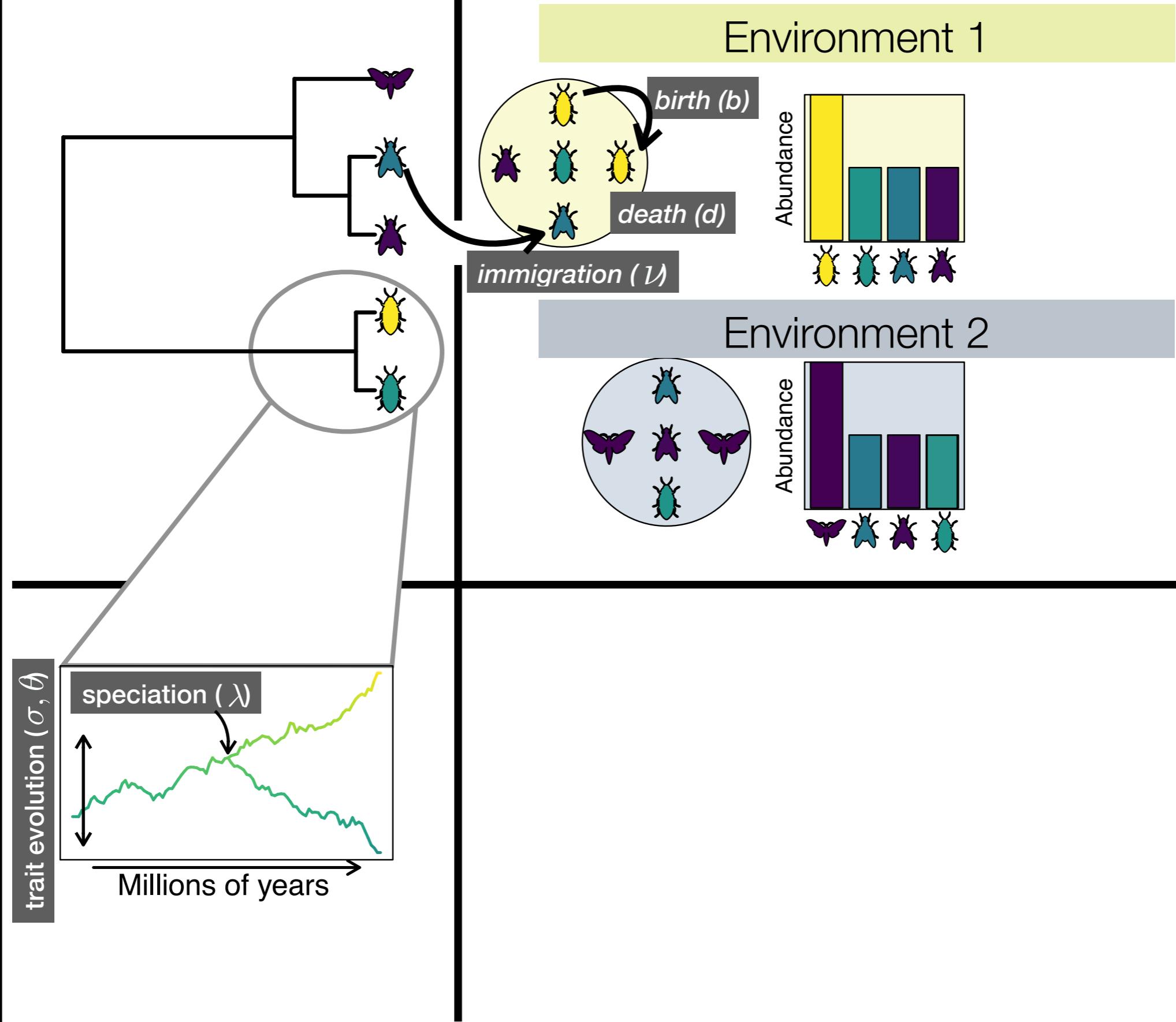
Regional Pool

Local Community



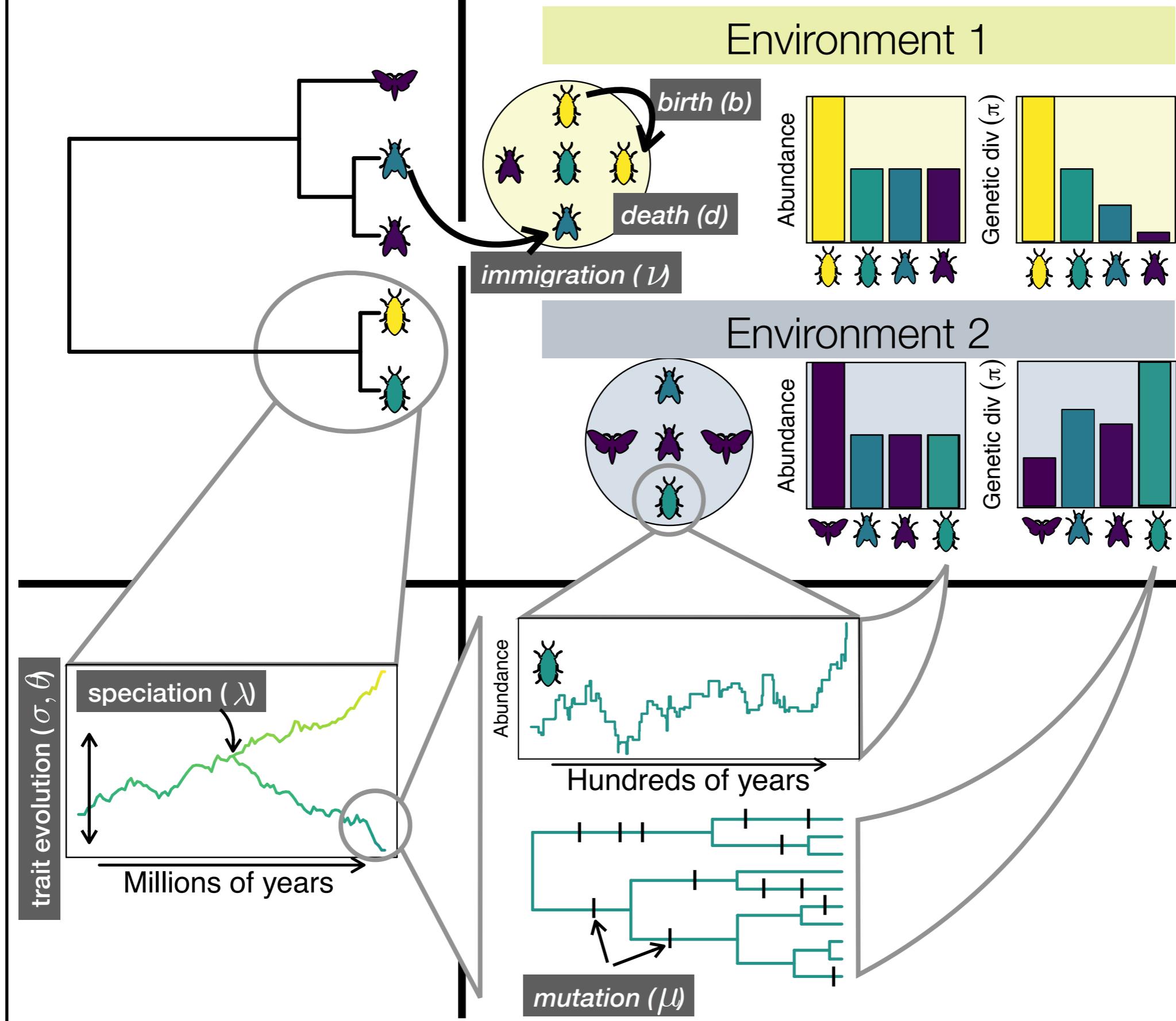
Regional Pool

Local Community



Regional Pool

Local Community



Thanks!



J. Harte



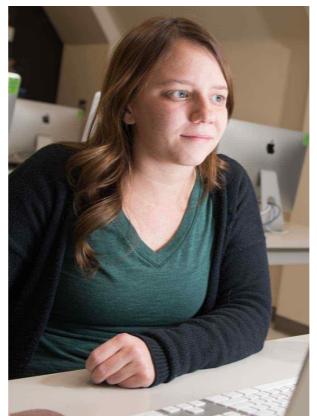
R. Gillespie



D. Gruner



L. Schneider



M. Ruffley



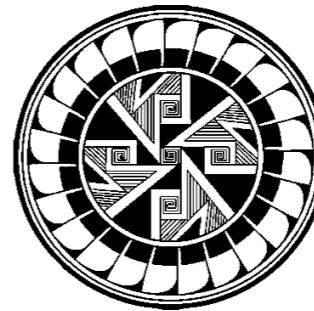
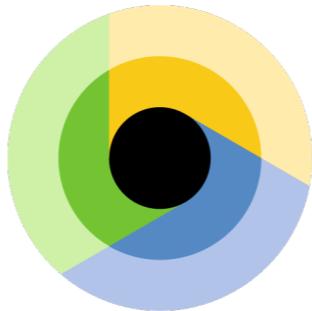
J. Chase



M. Hickerson



L. Harmon



When do we need evolution to explain ecology and vice versa?

