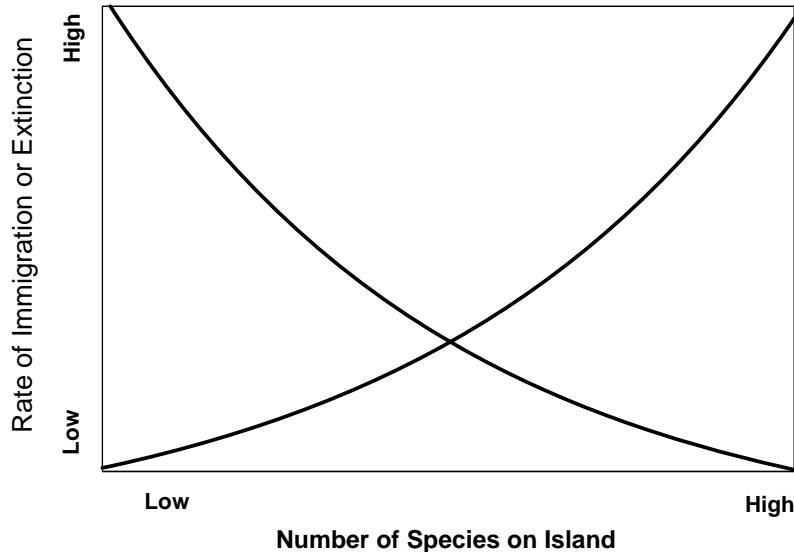


Supplemental Data II
Sample final exam question on island biogeography



31A. Lecture 28, learning goal #9 (2pts) The theory of island biogeography describes the number of species on an island as being determined by an equilibrium between the processes of immigration and extinction, as represented graphically by the above figure. The two curves above represent rates of immigration and extinction. Please label each curve **CLEARLY** in the figure above, indicating which line represents immigration, and which line represents extinction.

31B. Lecture 28, learning goal #9 (4 pts). One of the curves in the figure above has a positive slope, one has a negative slope. Please provide a biological explanation **IN ONE SENTENCE** for the slope of each curve.

Immigration curve:

Extinction curve:

31C Lecture 28, learning goal #9.(1pt). Indicate with an arrow **ON THE X-AXIS** the predicted equilibrium number of species on this island.

31D. Lecture 28, learning goal #9(2 pts). The predicted equilibrium number of species under this theory is said to be a “dynamic equilibrium”. **WHY?**