

General Biology: Cells and Molecules
Homework Assignment #3

DUE on Thursday, Aug 4th

ALL homework pages MUST be stapled. Please don't fold over the corners etc. You may type or handwrite your answers. Please make your handwriting as legible as possible.

1. Chihuahuas and Great Danes do not generally interbreed (size limitations for successful breeding). Why do we consider them to be members of the same species? How do the concepts of biological species, reproductive isolation and gene flow enter into the answer?
2. How can modern, industrialized societies slow down new cases of antibiotic resistance? Can they prevent them entirely? If so, how? If not, why not?
3. Why do you think there are so many examples of *endemic* species – that is species found nowhere else -- on islands? And why have the overwhelming majority of recent extinctions occurred on islands?
4. Southern Wisconsin is home to several populations of gray squirrels with black fur. Design a study to test if they are actually separate species?