

Community Ecology
Community Structure Paragraph
Due: 3/7/2011

Assignment: Based on the papers that your group selected (focusing on either body size overlap, nestedness of communities, incidence functions, or co-occurrence patterns), is there strong evidence of non-random community structure? Why or why not?

Nestedness occurs in communities when the organisms at a species poor site forms a subset of the organisms at a more species rich site. Larsen and Ormerod (2010) investigated the effect of human activities on the nestedness of a river invertebrate community. They found that human caused habitat modification resulted in a nested invertebrate community of organisms with short a lifespan, short generation time, and smaller body size. Out of the seven (approximately) studies on nestedness of communities that my group found, only one study did not find evidence of a non-random community structure (in this case nestedness). These studies were completed in a variety of places (from the US to the UK) and using a variety of taxonomic groups (from river invertebrates to mammals to birds). Based on these papers, one may come to the conclusion that there is strong evidence of non-random community structure just due to the fact that only one of the papers did not find nestedness within a community. However, a more complete literature search and meta-analysis would perhaps be needed to come to such a conclusion.

Reference: Larsen, S, and S. Ormerod. 2010. Combined effects of habitat modification on trait composition and species nestedness in river invertebrates. *Biological Conservation*. 143 (11): 2638-2646.