**Part 3: Activity: Transects**

In this activity your class will run one or more transects of a transitional area. Transects should start in one habitat and cross into another. For example, transects could begin on the school grounds and lead into the neighboring forest or field. It is ideal that quadrats placed evenly along the transect will have different organisms in them.

Try to choose an area that can accommodate 100 meter transects so that teams can be spaced 10 meters apart if possible. If this space is not available, 50 meter transects will suffice with 5 meters between groups. Another variation is to use 100 meter transects with 5 meter spacing to accommodate either more groups or additional quadrats per group. The same can be accomplished with additional 50 meter transects.

In the field, teams will take written observations about organisms found within their assigned quadrat including diagrams of the quadrat layout and organisms’ structure for identification. **It is recommended that a small set of field guides be provided to the students in the field and in the classroom. In the field, pictures and field samples will also be helpful.**  After the field portion is complete, teams will analyze data by calculating the population density of each population found in the quadrat, determine the abundances of the species in the quadrat and create a visual representation of these findings. **It is recommended to review the calculations prior to the activity.** Finally teams will be required to compare their findings to the data of the other teams along their assigned transect and explain any trends or shifts in population abundances found. These findings are then to be presented in a formal written lab report.