

THE EDGE OF HOME

(Follow-up activity, to point out how different ecosystems interact, with respect to diversity)

Source:

Project WILD: Activity Guide, The Council for Environmental Education, 1999.

Basic Description:

Explains why some species of plants and animals occur in more than one area. Also emphasizes the importance of protecting ecotone areas, for the higher levels of diversity present.

Materials:

- pencils
- paper
- long rope or string for making intervals in 30-cm segments
- clipboards
- camera (optional)

Time Allotment: one or two 45-minute periods

Procedure:

1. On the chalkboard, draw two large overlapping circles. Put a large number of small squares and triangles in one circle. Avoid the overlap. In the second circle draw many tiny circles and stars – again avoid the overlap area. Ask the students to predict what kinds of things they would expect to find in the overlapping circles. Draw circles, squares, triangles and stars in the area of overlap.
2. Ask the students where the greatest diversity exists. Label the whole area of the overlap the ecotone. (This is the area of greatest diversity.) Label the original two circles as Ecosystem 1 and Ecosystem 2. Ask the students to point out the edges of the overlap. These are the places where the two ecosystems come together and interact. The process and results of this coming together or interaction are called the “edge effect”.
3. Compare and interpret the student’s finding from the DLT data sheet. Ask for evidence to support the idea that populations of plants and animals tend to be more diverse within ecotones than in separate ecosystems.

Extensions:

- Create an ecosystem map or model of your community. Indicate the location of principal ecotones.

- Take a simple piece of paper and measure the edges. Cut the paper into four equal pieces – and measure the edges again. Repeat this twice again, measuring the edges each time. Support the idea that each new rectangle is a suitable habitat for some aquatic organism – and discuss how diversity is related to “edges”.
- Assess the overall health of any ecotones that seem particularly important to the quality of life for aquatic species in your community. Take action to protect any aquatic habitats in danger of being damaged, degraded or lost.

