**Introduction :** There are three general levels of biodiversity on earth. Ecosystem diversity is the variation within and between ecosystems. Species diversity is the number of species that exist in an area. Genetic diversity is the variation in the genes within a population of organisms.

In this activity, you will look at some examples of how human activities have altered the biodiversity of groups of taxa. Taxa are levels of classification, for example species or genus.

**Challenge :** How do humans alter the biodiversity of groups of taxa?

**Procedure :**

1. Look at the chart found on page 422, Human Activates that Affect Biodiversity. Complete a brief summary of each activity below.

*Habitat Destruction –*

*Introduced Species –*

*Overexploitation –*

*Disruption of Networks –*

*Breeding and Cloning* –

1. Follow your teacher’s directions for which scenario(s) to read.
2. Work by yourself to read your assigned scenario(s). As you read fill out the chart on the back side.
3. In your group take turns summarizing your assigned scenario(s). As you listen, fill in the columns on the chart for each of the scenarios you did not read.

|  |  |  |
| --- | --- | --- |
| **Scenario** | **Type(s) of Human Impact** | **Type(s) of Biodiversity Altered** |
| The Rainforests of Borneo |  |  |
| The Potato in Ireland |  |  |
| Cichlids and Nile Perch |  |  |
| The Dodo Bird |  |  |
| The Florida Panther |  |  |
| Domestic Dogs |  |  |
| Flying Foxes |  |  |
| Northern Elephant Seals |  |  |

**Analysis Questions:**

1. For which scenario(s) did humans alter…

a) Ecosystem diversity?

b) Species diversity?

c) Genetic diversity?

1. Explain how humans changed the ecosystem, species, and genetic diversity of the groups you identified in question 1.
2. What is the relationship between extinction and…

a) Species diversity?

b) Genetic diversity?

1. Do you think it is important for humans to be aware of how we alter the genetic and species diversity of groups of organisms? Explain.