**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_**

**Biodiversity on Bird Island**

1. What is Biodiversity? ­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. What is Species Richness? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. What is Species Abundance? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Scenario:**

*A group of scientists recently returned from surveying Bird Island, a remote island in the Atlantic Ocean. This island is inhabited by people. The scientists identified six species of birds living on the island. The map provided was created after surveying the island. Each population of birds is shown as a unique symbol on the map and indicates a sampling site.*

**PART 1- Graph All of the bird species within your ecoregion and compare your ecoregion to others in your group of 6.**

**What is your assigned Ecoregion? \_\_\_\_\_\_\_\_\_\_**

1. For your **ECOREGION (GRAPH #1)**, what was the **richness** (how many species were present)?

 \_\_\_\_\_\_species

* 1. Were there any species not present?
	2. Compare the species **abundance** in your ecoregion. Were the population sizes equal or were there more or less of one species?

**Compare the ecoregion graphs A-F and answer the following questions:**

1. Which ecoregions have a similar number of individuals within each species (similar abundance)?
2. What ecoregion (A-F) has the highest number of species (high species richness)?
3. List the number of different species in each ecoregion?

 **A- \_\_\_\_ species B- \_\_\_ species C- \_\_\_ species D- \_\_\_ species E- \_\_\_ species F- \_\_\_ species**

**PART 2- Graph the ABUNDANCE of ONE Bird species within EVERY Ecoregion**

What is your assigned Bird? \_\_\_\_\_\_\_\_\_\_

1. For your **SPECIES (GRAPH 2)**:
	1. which ecoregion had the highest **abundance** (population size)? Ecoregion \_\_\_\_\_\_
	2. Which ecoregion had the lowest abundance? Ecoregion \_\_\_\_\_\_\_\_

**When everyone has completed their graph, answer the questions below.**

1. Which species has the greatest abundance in the most ecoregions?
2. Which species is only found in one ecoregion?
3. Which species do you think is at risk of becoming endangered?
4. *Fill in the blanks using the word box below:* **High biodiversity helps an ecosystem survive \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, such as an invasive species, since the food web is more complex. The greater the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (and the more complex the food web), the more stable the ecosystem is. *So….. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ richness & abundance = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ biodiversity***

 ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ richness & abundance = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ biodiversityy***

**Word Box: Higher Lower Lower Higher Changes Richness Abundance**

 **Do you think your ecoregion’s bird populations would survive disturbances to the environment, such as the introduction of an invasive bird species?**

**Your claim**: I (do) or (do not) believe that ecoregion \_(A) (B) (C) (D) (E ) (F)\_’s bird populations

will survive disturbances to the environment. *(Circle an answer in each spot)*

**Your evidence**:

The **richness** in my ecoregion is \_\_\_\_\_\_\_ species. This richness is high or low compared to other ecoregions.

The **abundance** in my ecoregion is high for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The **abundance** in my ecoregion is low for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Your Reasoning:**

I believe this because the bird **biodiversity** in my ecoregion is high or low, because \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Biodiversity is important, because \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Bird Island Graphs**



**Bird Island Graphs**





**Bird Island Map**