

BIODIVERSITY GUIDE

This activity is high interest for students as they will observe live animals and also feel that they are contributing to the on going research at Race Rocks.

Teacher preparation will involve using the web links to the GIS tool and the remote camera (<http://www.racerocks.com/racerock/video5remote.htm>). As the camera can be used by one person for two minutes it would be most effective to have the teacher demonstrate the photo capture tool to the entire class.

The photo capture is used to open a sighting box where the teacher and the class can fill in information about what they saw the animal doing. The photo capture could be used at the end of the lesson after the students have some familiarity with the specific types of animals they are observing. Students can become familiar with the GIS tool during this demonstration. An LCD projector will give the class the best views of the video feed. There is also archive video and photos link on the left side of the camera page to use if the animals you wish to view are not visible during the lesson.

The GIS tool is used to place a sighting log on the Race Rocks satellite image. There are specific steps and excellent graphics to guide you on how to use the GIS included in the downloaded archive.

Following the video viewing and discussion of the animals observed, students can now work independently on a computer to find out more about the two species of true seals: Elephant and Harbour, and the three types of Sea Lions; Stellar, Californian, and Northern Fur Seal.

This activity asks the students to click on a blue marker on the GIS site that shows a satellite image of the Race Rocks area. Each blue marker represents a previous logged sighting of an animal.

The first time a student opens a sighting they will need to log in as 'student, student'. They can now open any marker that has the information recorded by a previous observer. A 'red' vertical line will appear just below the '?' mark as the student selects a blue marker. An information box will appear and a photo of the animal in the right hand side is also a link to a reference page on that animal.

The student can also classify the animals from the captured photo by using the taxonomy link. This is a dichotomous key where the student answers yes or no as they work their way down the list of possible traits observed to finish at the name of the animal. The animal photo is also a link to the reference page on the animal as mentioned in the sighting log.

The following page is a printable response template for the students to use in this activity.

OCEAN QUEST STUDENT ACTIVITY

name _____

BIODIVERSITY

PURPOSE:

To locate and identify the scientific (genus & species) and common names of **three** animals found at Race Rocks.

To contribute to the Race Rocks data base by completing a **sighting log** for **one** animal.

OBSERVATIONS:

Complete the data table by carefully following STEPS 1, 2 and 3 in the Procedure for this activity in Ocean Quest 'Student Activity A'.

| Animal Name: Genus Species | Common Name | Taxonomy major clue |
|-----------------------------------|--------------------|---------------------|
| 1. _____ | _____ | _____ |
| 2. _____ | _____ | _____ |
| 3. _____ | _____ | _____ |

FUN FACTS: Open the Taxonomy Name link or use the Search feature to locate the following information about your animal.

COMMON NAME: APPEARANCE, HABITS, DIET, OTHER.

| | |
|----------|-------|
| 1. _____ | _____ |
| | _____ |
| | _____ |
| 2. _____ | _____ |
| | _____ |
| | _____ |
| 3. _____ | _____ |
| | _____ |
| | _____ |