**Station 1: Variation within a Species**

**Introduction:** You have a selection of individual specimens representing the seaweed species *Nereocystis luetkeana* (common name: Bull Kelp). *Nereocystis* is a large, iconic seaweed of British Columbia, can grow 10cm per day, creates underwater forests and is delicious eaten fresh or pickled. Your task is to explore similarities and differences within this species.

**IMPORTANT:** These are delicate and irreplaceable research collections. Do not handle collections until given instructions.

Q1: Describe **two features that are similar** between all of your specimens and **two features that are different** between some of your specimens.

Q2: Brainstorm a list of reasons to **explain the differences** observed between your specimens. *Hint: the specimen labels may be useful for this question.*

Q3: **How tall is this species?** Choose three specimens and measure each one’s length using the provided tools (decide which is best for your species). Calculate average and size range (minimum and maximum).

Specimen 1 length: \_\_\_\_\_\_\_\_ Specimen 2 length: \_\_\_\_\_\_\_\_\_ Specimen 3 length: \_\_\_\_\_\_\_\_\_\_\_

Average height: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Size range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q4: **Identify two additional features** you could measure or count on these specimens.

Chosen features: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Why did you choose these?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q5: **Brainstorm** a couple of reasons why you, as a researcher, may want or need to study museum collections of organisms instead of (or alongside) “live” or fresh specimens?

**Station 2: What’s in a Label?**

**Introduction:** You have a selection of individual specimens collected across a variety of years and locations. Your task is to identify key information from the specimen labels and recognize the importance of good record keeping.

**IMPORTANT:** These are delicate and irreplaceable research collections and some are very old! Please do not handle collections until given instructions.

Q1: Choose two specimens to complete this table.

|  |  |  |
| --- | --- | --- |
|  | Specimen 1 | Specimen 2 |
| What is the **genus** and **species** name? |  |  |
| Who **collected** this specimen? |  |  |
| Why do we record the **collector?**  |  |
| **Where** was it collected? |  |  |
| Who **determined** this specimen?  |  |  |
| What does it mean to **determine** a specimen?  |  |
| What is the **accession #**? |  |  |
| What is the purpose of an **accession** number? |  |
| Any other useful information on your specimen? |  |  |

Q2: What was one thing that was **easy** and one thing that was **difficult** about interpreting information on the specimen?

Q3: **Brainstorm:** if a species is reclassified (i.e., its name or taxonomic rank changes), what happens to the specimens in the museum?