LAB SHEET:

**QUESTION**: What is the most common cause of marine mammal strandings?

**HYPOTHESIS**: (A complete sentence should be constructed to address the lab question.)

**TEST YOUR HYPOTHESIS**:

**MATERIALS/PROCEDURES**:

Part I: All Recorded Data

1. Open the “All Recorded Data” spreadsheet and save to your folder.
2. Enter formulas to calculate the “Total Interactions” and “Percentage by Interactions” columns.
3. Enter formulas to calculate the “Total Interactions by Species” and Percentage of Interactions by Species” columns.
4. Generate “GRAPHS 1 – 5” Using the “All Recorded Data” spreadsheet.

Part II. Top 5 Species Data

1. Open the “Top 5 Species Data” spreadsheet and save to your folder.
2. Enter formulas to calculate the “Total Species” and “Percentage by Species” columns.
3. Enter formulas to calculate the “Total Interactions by Species” and Percentage of Interaction by Species” columns.
4. Generate “GRAPHS 6 – 7” Using the “Top 5 Species Data” spreadsheet.

**DATA COLLECTION**: *(Copy and Paste your completed spreadsheets below.)*

* TABLE 1 - “All Recorded Data”

|  |  |
| --- | --- |
| **Human Interactions by Species with Data** |   |
| **COMMON NAME** | **FISHERY INTERACTION** | **BOAT COLLISION** | **GUN SHOT** | **OTHER HUMAN INTERACTION** | **Totals (N=514)** | **Percentage by Species** |
| California Sea Lion | 37 | 12 | 114 | 64 | 227 | 0.44 |
| Gray Whale | 10 | 1 | 0 | 0 | 11 | 0.02 |
| Guadalupe Fur Seal | 11 | 0 | 0 | 3 | 14 | 0.03 |
| Harbor Porpoise | 40 | 3 | 0 | 0 | 43 | 0.08 |
| Harbor Seal | 10 | 3 | 43 | 23 | 79 | 0.15 |
| Humpback Whale | 6 | 1 | 0 | 0 | 7 | 0.01 |
| North.Elephant Seal | 3 | 0 | 3 | 2 | 8 | 0.02 |
| North.Fur Seal | 16 | 0 | 0 | 2 | 18 | 0.04 |
| Pacific White-sided Dolphin | 1 | 0 | 0 | 0 | 1 | 0.00 |
| Risso's Dolphin | 1 | 0 | 0 | 0 | 1 | 0.00 |
| Sperm Whale | 0 | 0 | 0 | 2 | 2 | 0.00 |
| Steller Sea Lion | 21 | 3 | 66 | 9 | 99 | 0.19 |
| Striped Dolphin | 4 | 0 | 0 | 0 | 4 | 0.01 |
| **TOTAL Interactions** | 160 | 23 | 226 | 105 |  |   |
| Percentage By Interaction | 0.31 | 0.04 | 0.44 | 0.20 |   |   |

* TABLE 2 - “Top 5 Species Data”

|  |  |
| --- | --- |
| **TOP 5 Species Interactions** |  |
| **COMMON NAME** | **FISHERY INTERACTION** | **BOAT COLLISION** | **GUN SHOT** | **OTHER HUMAN INTERACTION** | **Totals (N=466)** | **Percentage by Species** |
| California Sea Lion | 37 | 12 | 114 | 64 | 227 | 0.44 |
| Harbor Porpoise | 40 | 3 | 0 | 0 | 43 | 0.08 |
| Harbor Seal | 10 | 3 | 43 | 23 | 79 | 0.15 |
| North.Fur Seal | 16 | 0 | 0 | 2 | 18 | 0.04 |
| Steller Sea Lion | 21 | 3 | 66 | 9 | 99 | 0.19 |
| **TOTAL By Interaction** | 124 | 21 | 223 | 98 |   |   |
| Percentage By Interaction | 0.24 | 0.04 | 0.43 | 0.19 |  |  |

**DATA ANALYSIS:** (Copy and Paste your completed graphs below.)

**All Species Recorded**

GRAPH 1 – Human Interactions by All Species Recorded

GRAPH 2 – Fisheries Interactions by All Species Recorded

GRAPH 3 – Boat Collisions by All Species Recorded

GRAPH 4 – Gunshots by All Species Recorded

GRAPH 5 – Other Human Interactions by All Species Recorded

**Top 5 Species Recorded**

GRAPH 6 – Top 5 Species Interacting with Humans

GRAPH 7 – Most Common Interactions in Top 5 Marine Mammal

**CONCLUSION:**

(Complete sentences should be used to construct a paragraph addressing the following:

 1. Readdress the lab question.

 2. Readdress your hypothesis.

 3. Use these key terms to summarize your findings: (