**Simply Symbiosis**

Purpose: The purpose of this lab is to determine the type of symbiotic relationships between two unlike organisms found in nature.

Procedure:

1. At each station read the description provided on the Symbiotic Relationship Cards.
2. In Table 1 write down the name of both organisms, which one benefits, which one is neutral and which one is harmed. Do not leave a column blank
   1. for example, if neither organism is harmed you could write “none” or “neither”
3. Determine if the relationship is mutualism, commensalism or parasitism and record in Table 1.
4. In Table 2, write a COMPLETE SENTENCE describing how the relationship was mutualism, commensalism or parasitism.

| **Table 1** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| Station # | Name of Organism 1 | Name of Organism 2 | Which organism(s) benefits? | Which organism is neutral? | Which organism is harmed? | What type of symbiotic relationship is this? |
| 1 | Fungus provides nutrients to algae. | Algae provides food to fungus. | Both | None | None | Commensalism |
| 2 | Parasites get nourishment from dogs. | Dogs are harmed . . . may become sick from bites/ diseases transmitted by parasites. | None | None | Dog | Parasitism |
| 3 | Insects | Trees | Both | None | None | Mutualism |
| 4 | Mistletone | Tree | None | None | Both | Mutualism |
| 5 | Shark | Remora Fish | Remora Fish | Shark | None | Mutualism |
| 6 | Birds | Fish | None | None | Fish | Mutualism |
| 7 | Cow | Bacteria | None | Bacteria | None | Commensalism |
| 8 | Bighorn sheep | BigHorn sheep | Both | None | None | Commensalism |
| 9 | Athlete's foot | Fungus | None | Athlete’s foot | Human | Mutualism |
| 10 |  |  |  |  |  |  |

| **Table 2** | | |
| --- | --- | --- |
| Station # | Type of Relationship | Description |
| 1 | Algae provides food to fungus. | Fungus provides nutrients to algae. |
| 2 | Parasites get nourishment from dogs. | Dogs are harmed . . . may become sick from bites/diseases transmitted by parasites.. |
| 3 | Sea anemone get cleaned of parasites from the clownfish. | Clown fish get protection from the anemone. |
| 4 | Tree is not helped or harmed by the presence of galls. | Insects form a nursery called a gall on the leaf/branch of a tree. Insects have a safe place to develop. |
| 5 | Mistletoe gets food and water from the tree. | Tree loses food and water that it needs . . . eventually will die. |
| 6 | Remora fish get free food by hanging out with the sharks. | Sharks are not affected by the presence of the fish. |
| 7 | Birds of prey can spot fish swimming in a lake from high altitudes. | They swoop down and grab fish to feed their young back in their nest. |
| 8 | Bacteria live in the intestines of cows and other organisms. | The cow provides a warm and moist environment to live. |
| 9 | Male bighorn sheep called rams, butt heads to see which one is dominant. | The dominant male can mate with more females than the non dominant sheep male sheep. |
| 10 | The fungus gets nutrients from the human skin. | Athlete's foot causes dry, scaly skin, itching, inflammation and even blisters. |