***Exploring how climate will impact plant-insect distributions***

***and interactions using open data and informatics***

**SP-2: Species Distribution Maps (SDMs) and Hypothesis**

**- Assignment -**

**Instructions:** Use the headings and prompts below to prepare your SP-2 assignment. Make sure that all maps are accompanied by a figure legend that also includes the number of observations (when appropriate).

**I. Butterfly species observation map:** *(species name)*

*image with figure legend*

**II. Host plant species observation map:** *(species name)*

*image with figure legend*

**III. Butterfly Species Distribution Map:** *(species name)*

*image with figure legend*

**IV. Host Plant Species Distribution Map:** *(species name)*

*image with figure legend*

**V. Comparison of Observation Maps to SDMs**

*Verbal description comparing the observation map to SDMs*

**VI. Model Comparison of Distribution Overlap:**

*image with figure legend*

*verbal description of predicted range overlap (including % overlap):*

**VII. Working hypothesis for effects of climate change on this plant-insect interaction**

**VIII. Rationale for your hypothesis.** Please be sure to reference the life history traits of the insects and plants, the effects of changing abiotic components of the environment, etc.

**IX. Make a prediction as to what component (biotic or abiotic) will have the greatest impact on the distribution of your butterfly 50 years into the future.**