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| --- | --- | --- | --- |
| Trait | Prediction | Type of data | Source of data |
| Body mass | As in Island Biogeography theory as there is more area there is more diversity. We think there will be a positive relationship for both alpha and gamma diversity. | Continuous | Tobias et al. 2022 |
| Range size |  | Continuous | Tobias et al. 2022; BirdLife International |
| Habitat breadth | The more habitats a species is found in will correlate with microbiome diversity because they are exposed to more unique environments and unique habitats have unique microbes. We think there will be a positive relationship for both alpha and gamma diversity. | Discrete |  |
| Flock size | We expected a positive relationship for both alpha and gamma microbe diversity because as an individual interacts with more individuals there is a higher likelihood of biome transfer. | Continuous | eBird; Callaghan et al. 2021 |
| Trophic level | We predicted that herbivores would have the highest microbial diversity because grasses have more fibers and it takes more microbes to break down fibers. We expected this for both alpha and gamma diversity. |  | Pigot |
| Primary habitat | We predicted that habitat would modulate the microbial diversity because the microbiome originates from the environment. | Categorical |  |
| Primary lifestyle | We predicted that aerial foragers would have the highest gamma diversity but not necessarily the highest alpha diversity because we assume species with aerial lifestyles are exposed to more unique environments. We expected the generalists to have the highest alpha diversity because they use a combination of different habitats. | Categorical |  |
| Global Glabundance |  |  | Callaghan et al. 2021 |