Malcomia africana: Looking at an invasive species' microbiome response to climate change stressors

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Introduction and Motivation

Climate change is re-organizing the ecological "rules" and the ability of many plant species to survive. Non-native species that are better adapted to deal with these new "rules", such as increased drought or heat, may allow for non-native plants to succeed.

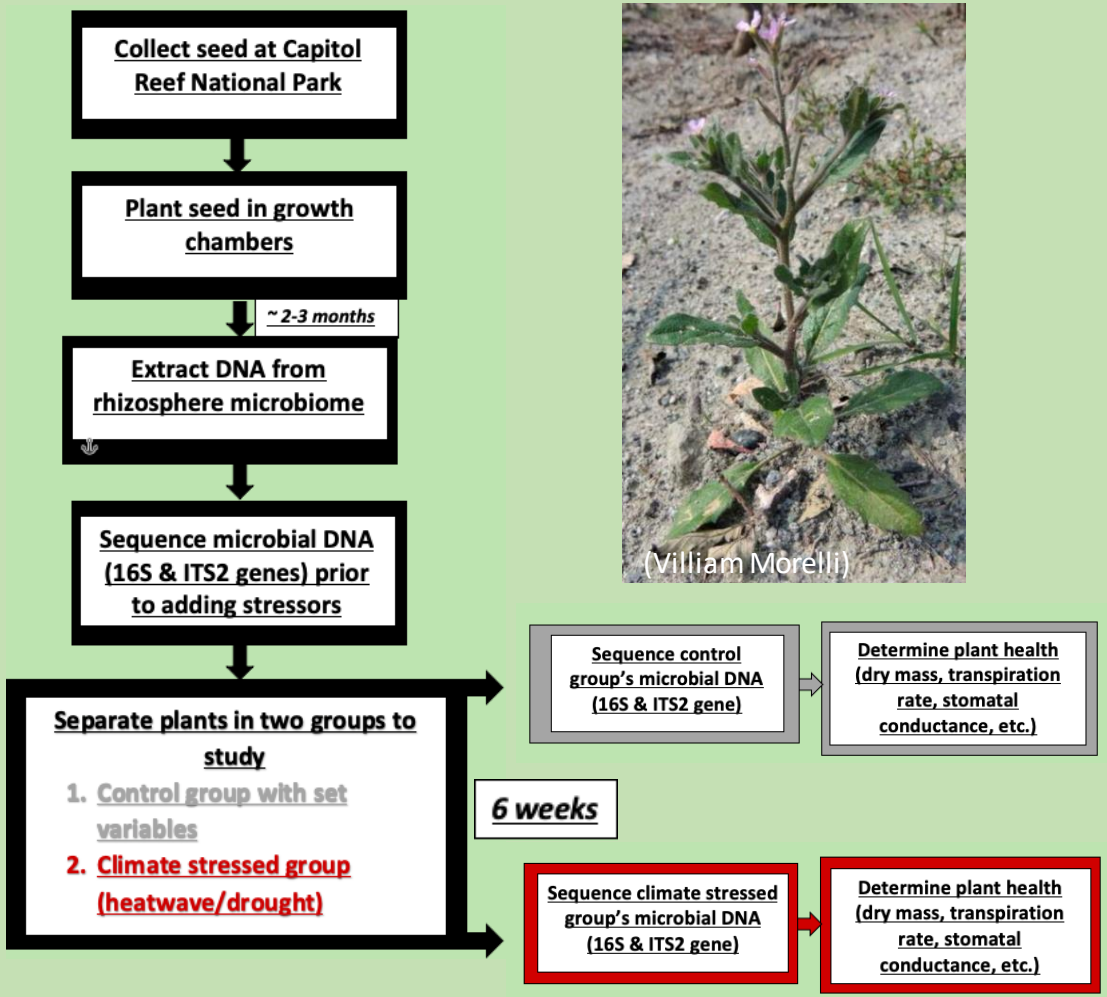
Why *Malcomia africana*?

- Recently introduced plant to Utah
- Drought adapted in its native range
- Little research on its invasion dynamics

Research Question

Does the microbiome of *Malcomia africana's* rhizosphere contribute to survivability under climate change stressors?

Methods



(William Morelli)

Expected Results

Studies have found changes in plant microbiomes under climate change stressors. (Meisner et al., 2018, Rubin et al., 2018, Rolli et al., 2015). We expect to see different microbiome communities between the survivors and deceased plants after drought stress.

Future Implications

We hope by the end of our research we can better understand *Malcomia africana*. Our research may imply one of the reasons that this non-native plant has been able to start spreading across the southwest

References