



Laukahi: The Hawai'i Plant Conservation Network

1		Hibiscus
1		Geranium arboreum, Schiedea haleakalensis, Clermontia samuelii subsp. samuelii, Cyrtandra ferripilosa, Cyanea asplenifolia
1		Metrosideros spp. to determine if there is any natural resistance to Ceratocystis Sp. A & B (and other pathogens)
1	Inter/Intra-Population Variation (molecular study)	Hibbrabra, Abumen (not PEPP), Phyllostegia spp., Cyrtandra spp. From a management standpoint, identifying true "Big Island stock" of certain interisland species may be beneficial to ensure funds allocated to these species are being utilized for these species. Fortunately, work is underway for the Malvaceae species above. For Phyllostegias and Cyrtandras, greater understanding and perhaps revisiting published keys could help on the ground efforts in positively identifying species of concern. It seems there is a lot of misinformation and taxonomic overlap, which may be difficult to discern. One instance is disagreement over Phyllostegia parviflora var. glabriuscula.
1		Wide variety of genera and species
1	Inter/Intra-Population Variation (molecular study)	Phyllostegia spp., Cyrtandra spp. Developing restoration plants for the genera above is difficult because there is so much variation in phenotype between individuals at different sites. Hybridization is also an issue, especially in the Cyrtandras. Identifying individuals to species can be very difficult and so there is often uncertainty in how to proceed with genetically appropriate restoration efforts.



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Priority	Research Topic	Genus/Species and comments
2	Inter/Intra-Population Variation (molecular study)	I think population variation is a poorly considered factor in conservation in Hawaii. This doesn't necessarily need to be molecular, although molecular studies enhance this topic a lot. What we need to link population variation to conservation is evidence for ecotypic variation, and so phenotypic and ecological studies that integrate population structure are important and fairly scarce in Hawaii.
2		When is it deemed ok to mix populations? On Hawaii Island this would be a question for <i>Cyanea hamatiflora</i> ssp. <i>carlsonii</i> as we have lots of potential outplants of Hualalai stock but few South Kona representatives.
3	Inter/Intra-Population Variation (molecular study)	<i>Metrosideros</i> ; this approach yields rapid insight into the strength of isolation among closely related taxa within a lineage, which can be useful for conservation applications.
4	Inter/Intra-Population Variation (molecular study)	<i>Acacia</i>
4		<i>Phyllostegia</i> species- genetic test could be helpful to I.d. unknown species of mints, where overlapping characteristics appear.
4		<i>Cyrtandra</i>
5	Inter/Intra-Population Variation (molecular study)	<i>Cyrtandra</i> - genetic work identifying the relatedness or hybridization. If true species occur.
5		<i>Schiedea</i>