Priority	Research Topic	Genus/Species and comments
1		Schiedea. This is the basic research topic that I work on, but it is not necessarily what I think is the most important aspect in conservation/restoration biology. It is one important piece of information to consider in conservation/restoration biology.
1		Schiedea haleakalensis - Wild populations continue to decline. Outplanting efforts lack quality results due to perhaps weakened genetics, a changing climate, lots of other factors. It's a challenging species to work with.
1	Reproductive Biology (mating systems: autogamy, outcrossing, apomixis)	It could be argued that a set of related areas are all of roughly equal importance. Understanding reproductive biology--breeding and mating systems--in combination with identifying reproductive mutualists is critical for determining whether or not managed populations will be able to sustain themselves through natural reproduction. Other points in the life cycle are critical as well, especially seed germination and seedling establishment under natural conditions in the field. An experimental approach is best. Taken together, these steps should allow identification of the points at which regeneration is being limited, and direct conservation and management options to overcome them. In response to questions below: proceeding step-by-step through the reproductive life cycle, from flowering to well-established seedlings, needs to be completed for each species that is failing to regenerate naturally. Hence, seed dispersal, seed banks, germination, seedling establishment (and threats by granivores and herbivores) are all equally important--though it may make sense to start with flower biology and proceed one step at a time through the life cycle. I would advocate choosing a species and assessing all steps/processes, rather than choosing one process and examining a number of species.
1		I don't actually have a list of species just opinions on areas of research I think are most important for the conservation of native Hawaiian species - this would apply to all of the following questions

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1	Reproductive Biology (mating systems: autogamy, outcrossing, apomixis)	Our work on Schiedea with the most relevance to conservation comes from an understanding of the reproductive biology and how that influences genetic variation within and between populations of species. We are concerned with making the most of what little genetic variation remains in species to produce the most highly fit offspring possible for use in restoration. Our information on reproductive biology also informs restoration plants- for example, when restoring a species with separate sexes and wind pollination, not only is it important to have the great genetic diversity possible, but female plants must have pollen-donating hermaphrodites in their immediate neighborhood at short enough distances for pollen to be transferred to females. For a facultatively or obligately autogamous species with a long history of self-fertilization, worrying about variation within populations might not be so important (because there won't be much variation to worry about), and you don't absolutely need pollinators. But even in Schiedea viscosa, which is largely selfing, we found evidence for heterosis in crosses between populations, indicating that occasional cross pollination (by now extinct birds?) might have been important. From Lauren's work on Schiedea kaalae, the importance of attracting moths to the population is to maintain outcrossing. Differences in the presence/absence of moths in restored populations of S. hookeri is very interesting. Will these moths eventually find these restored populations in sufficient numbers to maintain outcrossing (and seed production)?
2	Reproductive Biology (mating systems: autogamy, outcrossing, apomixis)	Wide variety of genera and species
2		Hibiscus waimeae subsp. hannerae, Capparis sandwichiana, Schiedea apokremnos, Brighamia insignis, Cyanea leptostegia, Hesperomannia lydgatei, Kadua fluviatilis, Phyllostegia electra, Phyllostegia renovans, Platydesma spathulata, Strongylodon ruber, Gardenia remyi
3		Phyllostegia spp.,Geranium arboreum, Schiedea haleakalensis, Schiedea diffusa

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3	Reproductive Biology (mating systems: autogamy, outcrossing, apomixis)	Cyrtandra
4	Reproductive Biology (mating systems: autogamy, outcrossing, apomixis)	Hesperomannia lydgatei
4		Asteraceae: on Kauai specifically Wilkesia spp., Dubautia spp., Keysseria spp., Melanthera/Lipochaeta spp.
4		Understanding how these species reproduce is critical to recovering them.: Argyroxiphium kauense, Asplenium peruvianum var. insulare, Bonamia menzisii, Chrysodracon hawaiiensis, Colubrina oppositifolia, Delissea undulata, Haplostachys haplostachya, Hibiscadelphus hualalaiensis, Hibiscus brackenridgei ssp. brackenridgei, Kokia drynarioides, Mezoneuron kavaiense, Neraudia ovata, Nothocestrum breviflorum, Portulaca sclerocarpa, Silene lanceolata, Solanum incompletum, Stenogyne augustifolia, Zanthoxylum dipetalum var. tomentosum, Zanthoxylum hawaiiensis.
5	Reproductive Biology (mating systems: autogamy, outcrossing, apomixis)	Need to study breeding systems of all 238 PEPP species to understand how to cross individuals and produce viable seed
5		Common and SCI native Hawaiian taxa with a focus on Kauai. I would include plant - pollinator interactions in this category.