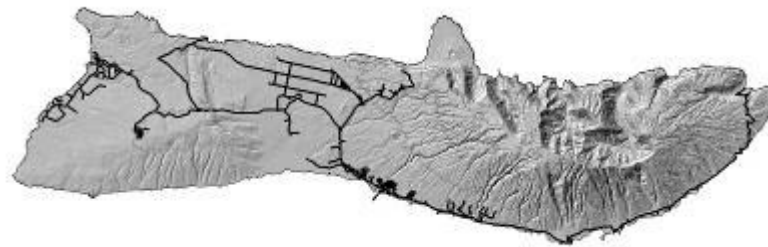


MAPS:  
MOLOKAI ROAD SURVEY AND EXPERT INTERVIEWS



2005



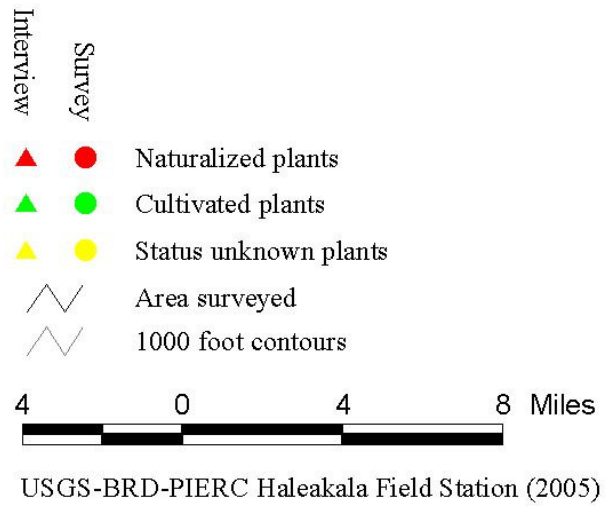
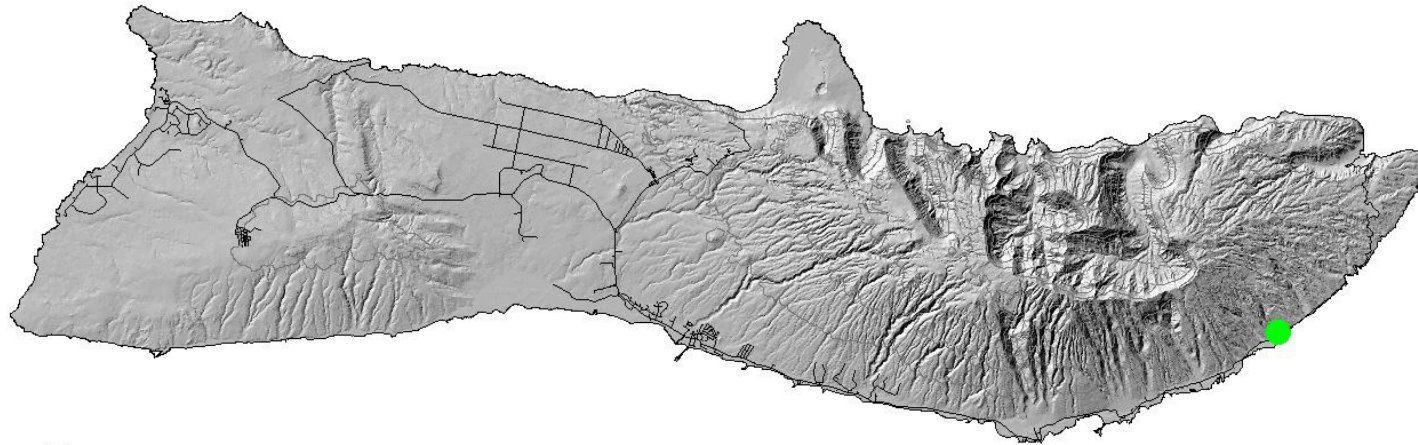
Prepared by:  
Forest Starr, Kim Starr, and Lloyd Loope  
USGS

## MAPS MOLOKAI ROAD SURVEY AND EXPERT INTERVIEWS

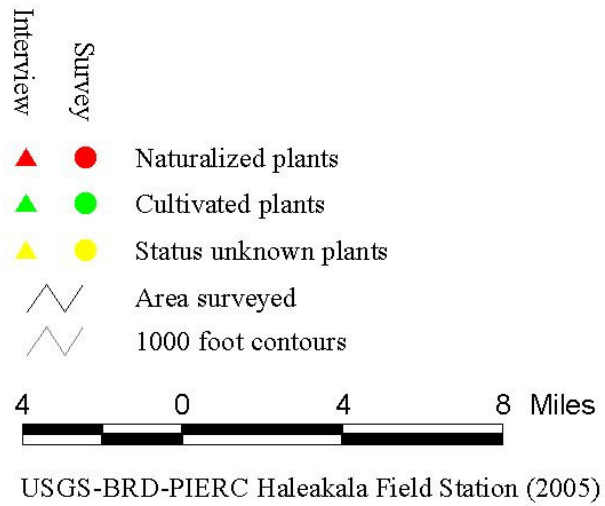
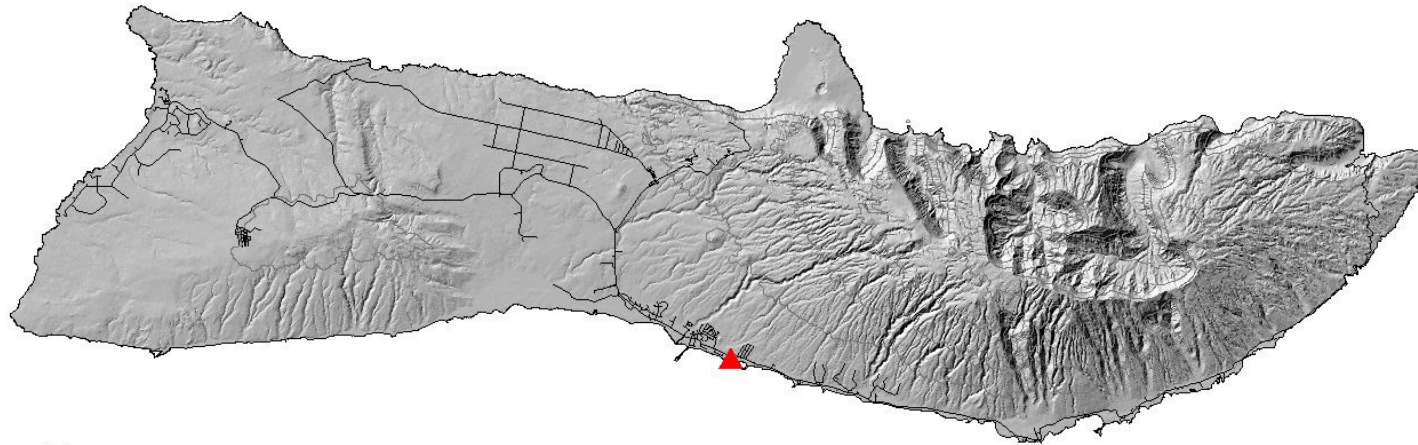
The following document includes maps of species found on Molokai during roadside surveys and expert interviews. To create island wide distribution maps for each target, we drove all the publicly accessible paved roads of Molokai at about 5-10 mph. When we came across one of our 126 target species, we recorded the location, naturalized status, and notes. We used a Garmin eTrex global positioning systems (GPS) unit to record locations. Maps were created using ArcView software. We further refined the maps by interviewing expert field botanists on Molokai, and adding any other location information we could find in the literature.

During this survey, we drove 142 miles of roads and found 986 locations for 41 species. Expert interviews, existing gps data, and literature searches added 291 locations for 10 species, of which 4 were not observed at all during road surveys. Some target species were found in limited distribution, while others were widespread. There were 85 target species which were not observed during our roadside survey. This document and more maps of these species can be found at [www.hear.org/starr](http://www.hear.org/starr).

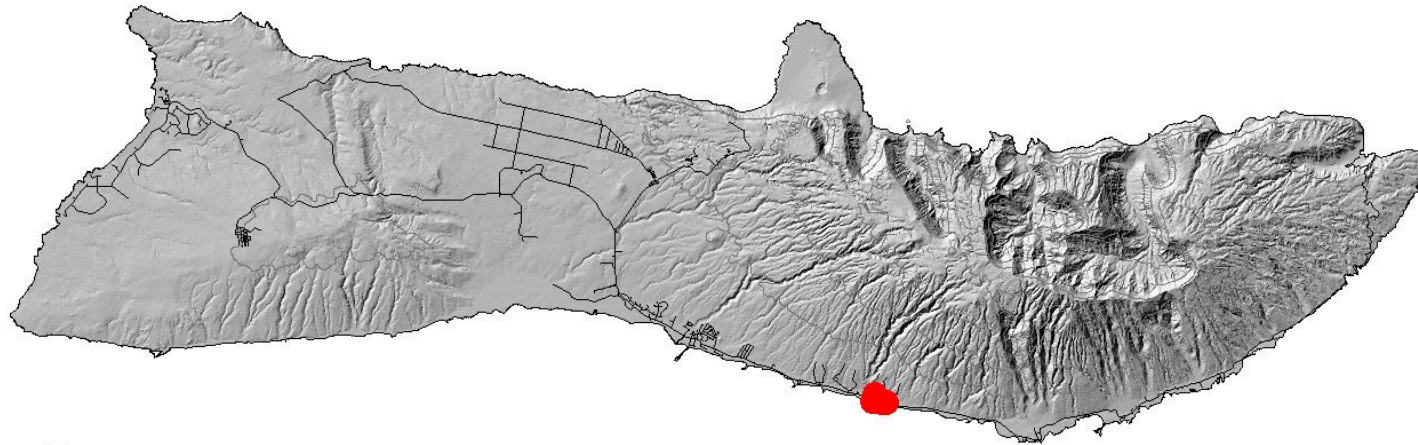
# Known distribution on Molokai of *Archontophoenix* spp.



# Known distribution on Molokai of *Arundo donax*



# Known distribution on Molokai of *Bassia hyssopifolia*



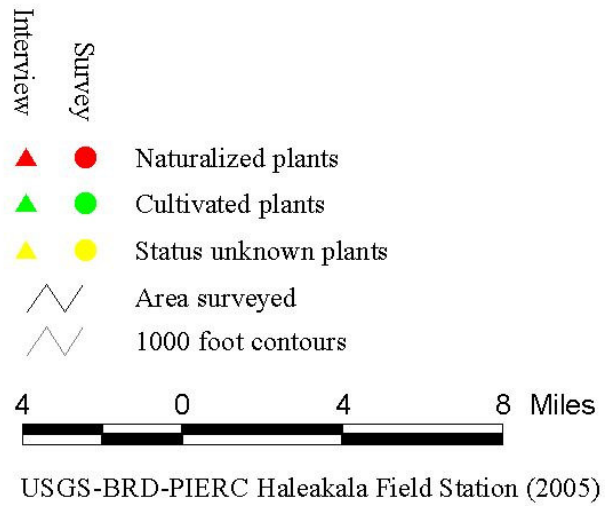
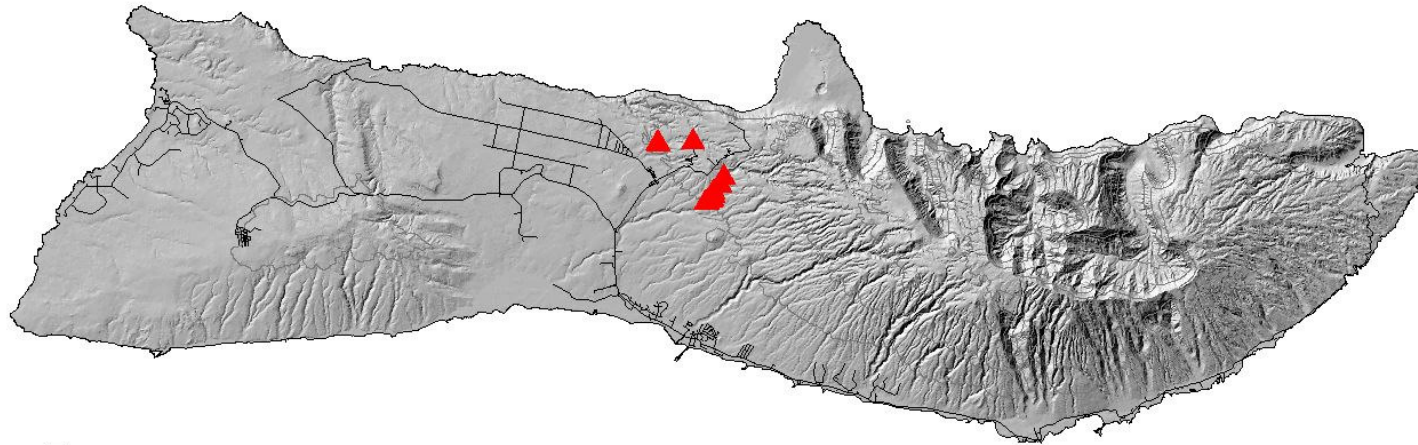
- |           |        |                       |
|-----------|--------|-----------------------|
| Interview | Survey |                       |
| ▲         | ●      | Naturalized plants    |
| ▲         | ●      | Cultivated plants     |
| ▲         | ●      | Status unknown plants |
| ⚡         |        | Area surveyed         |
| ⚡         |        | 1000 foot contours    |



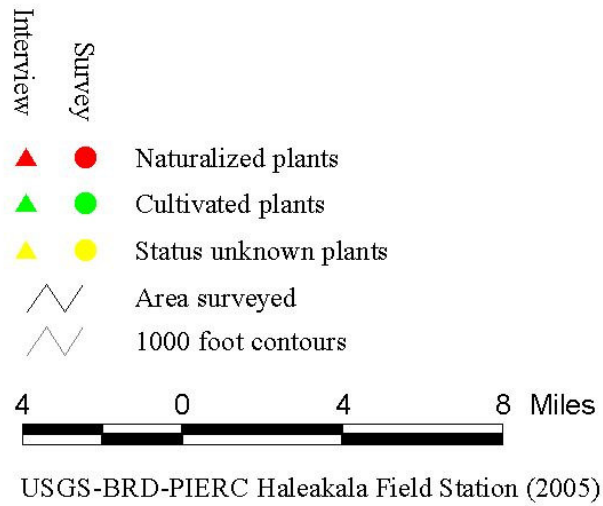
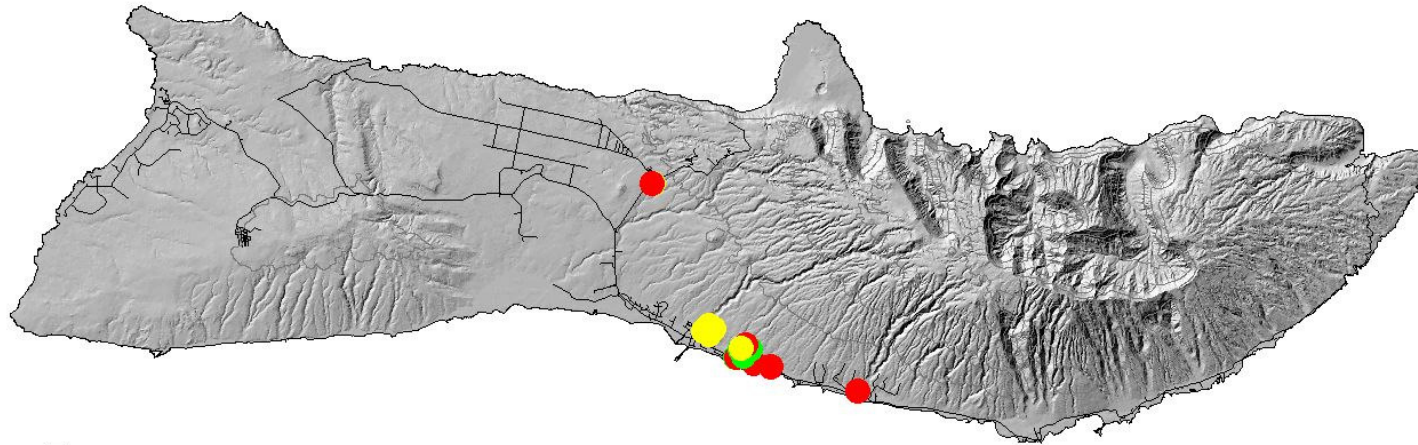
USGS-BRD-PIERC Haleakala Field Station (2005)



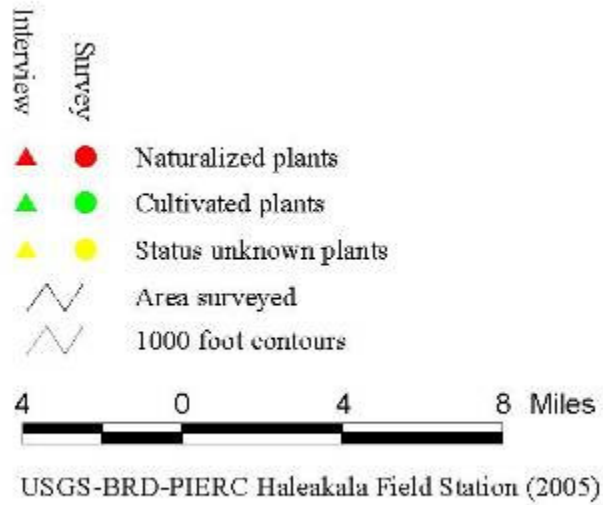
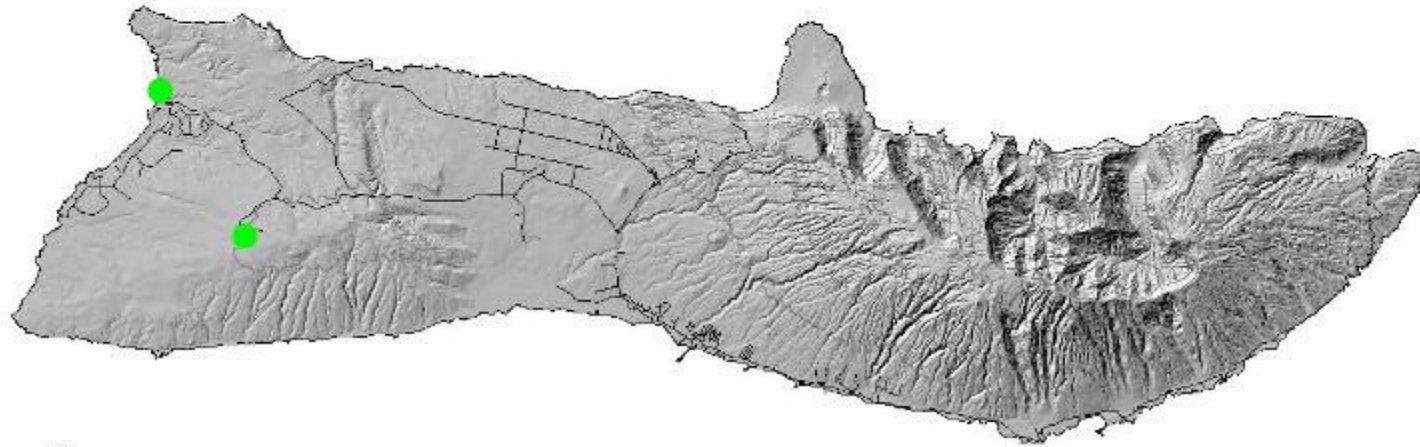
# Known distribution on Molokai of *Caesalpinia decapetala*



# Known distribution on Molokai of *Carmona retusa*

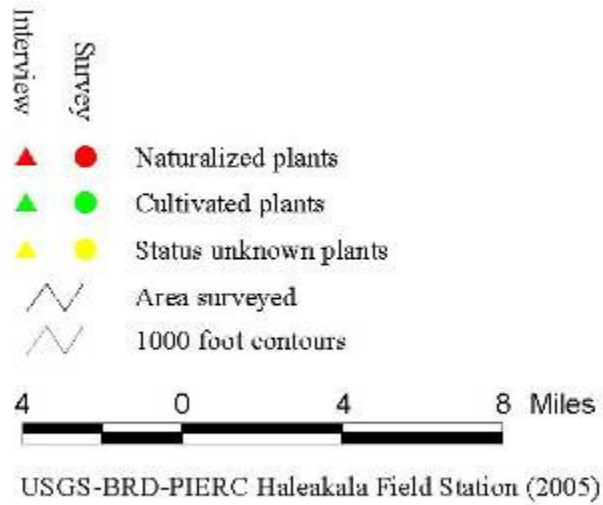
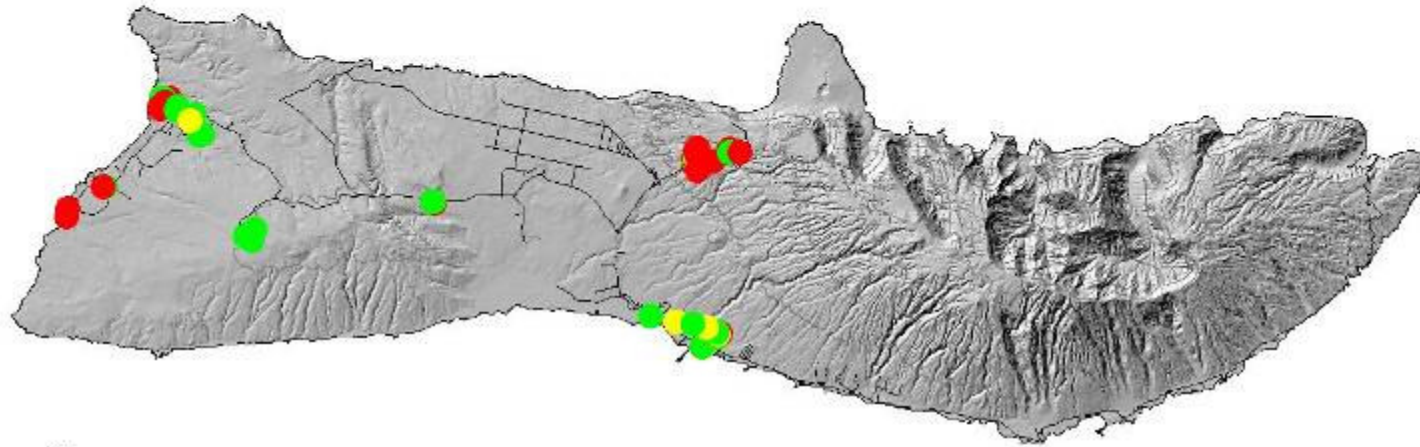


# Known distribution on Molokai of *Cestrum nocturnum*

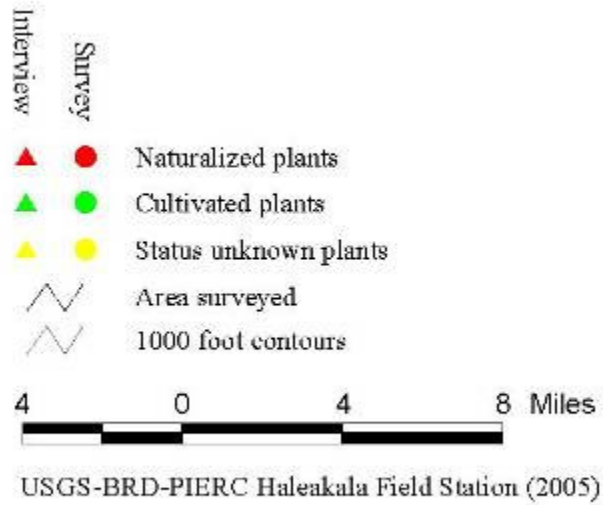
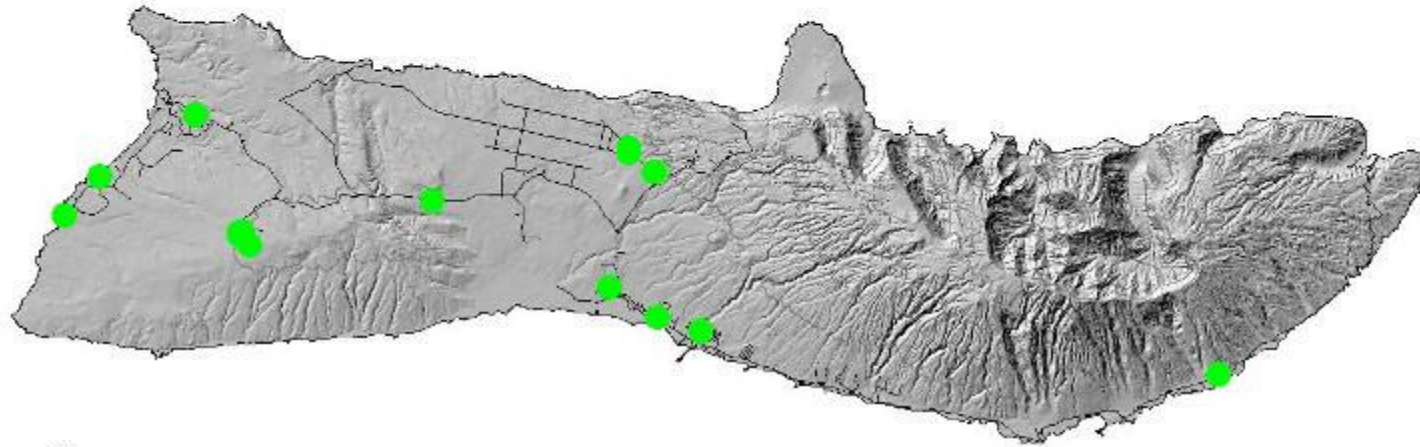




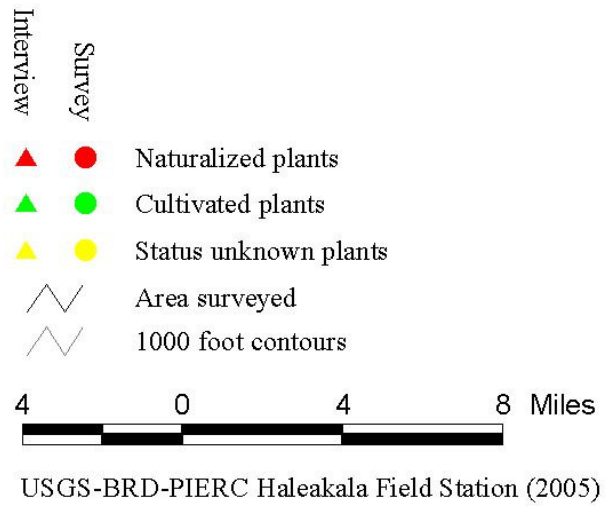
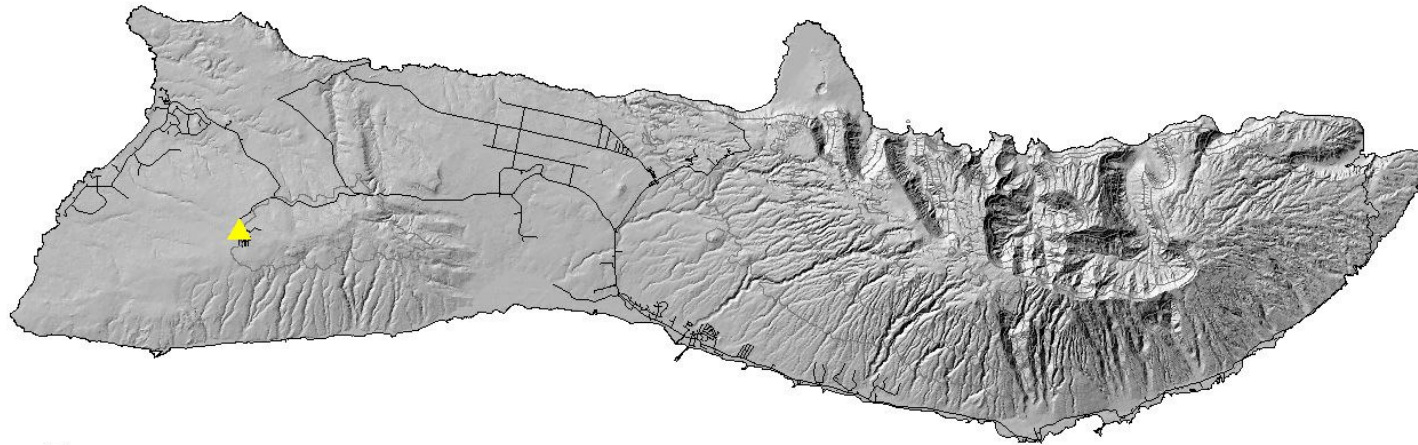
# Known distribution on Molokai of *Citharexylum spinosum*



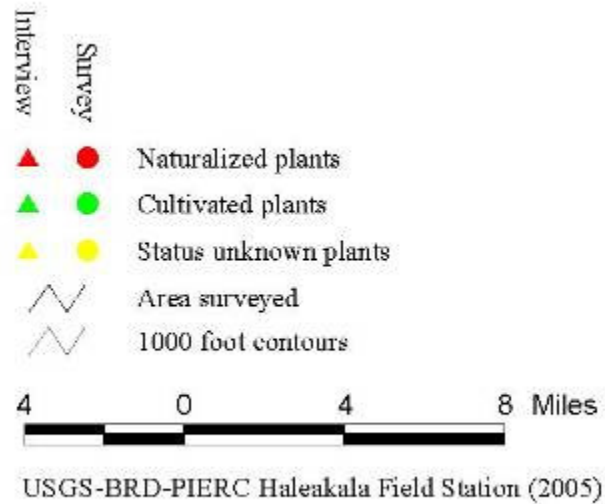
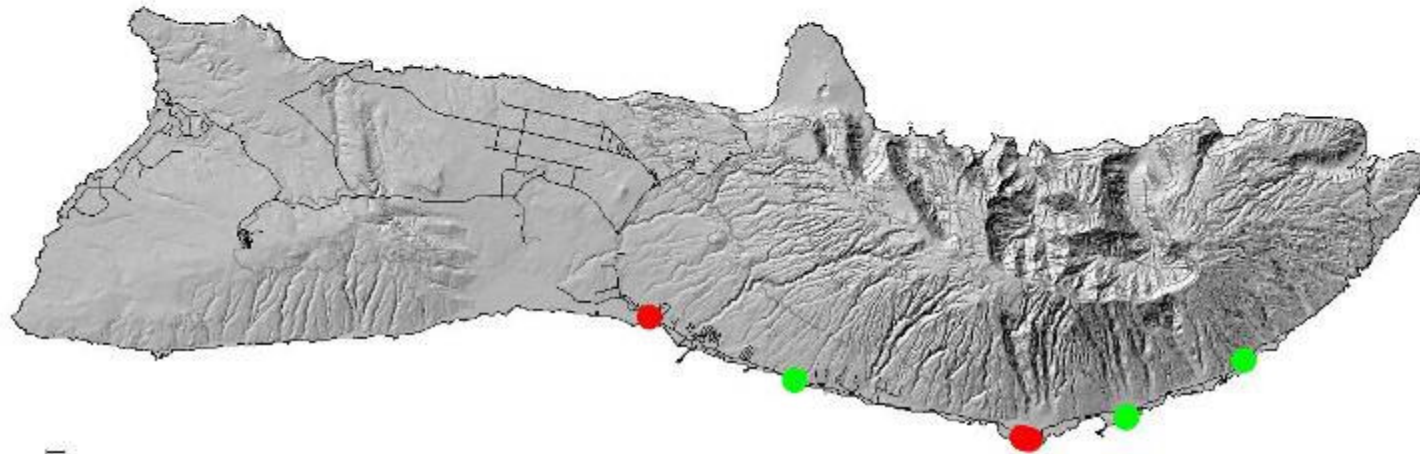
# Known distribution on Molokai of *Clusia rosea*



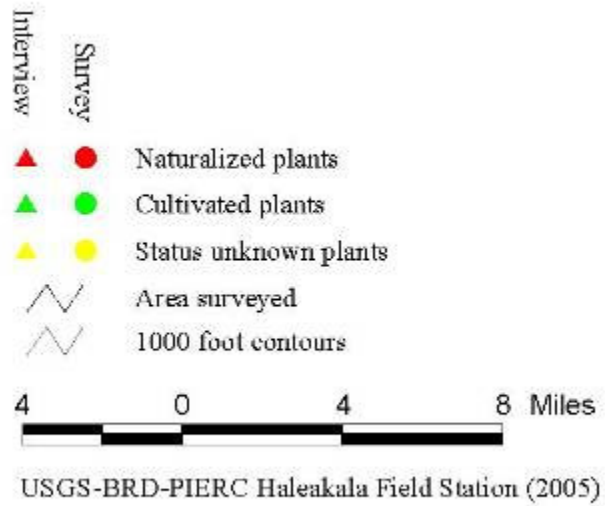
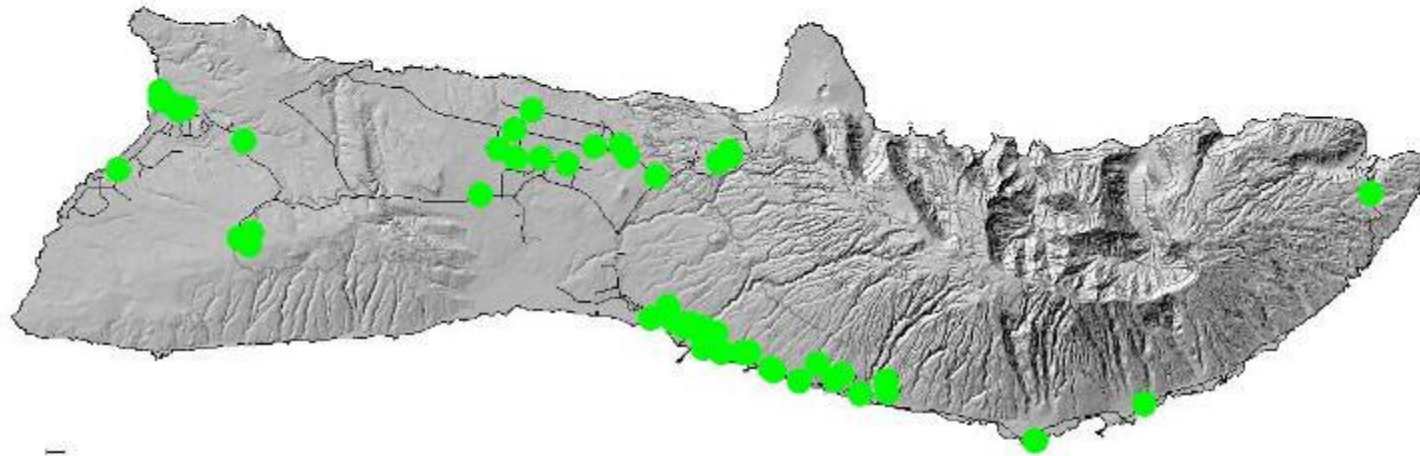
# Known distribution on Molokai of *Cortaderia* spp.



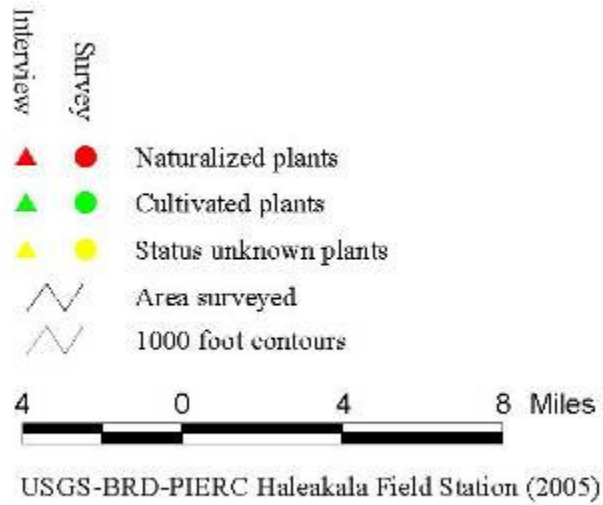
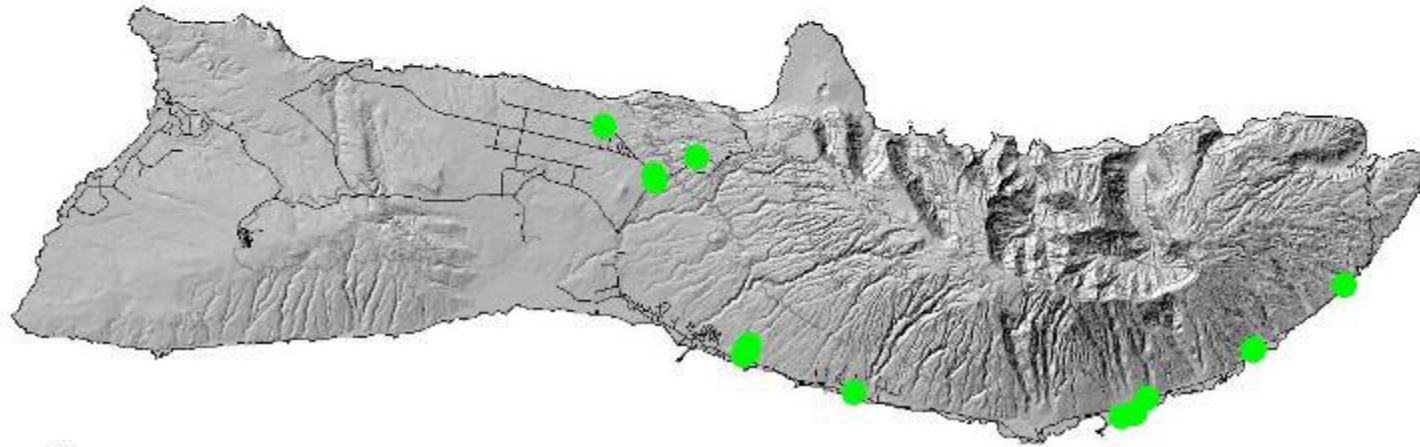
# Known distribution on Molokai of *Cryptostegia* spp.



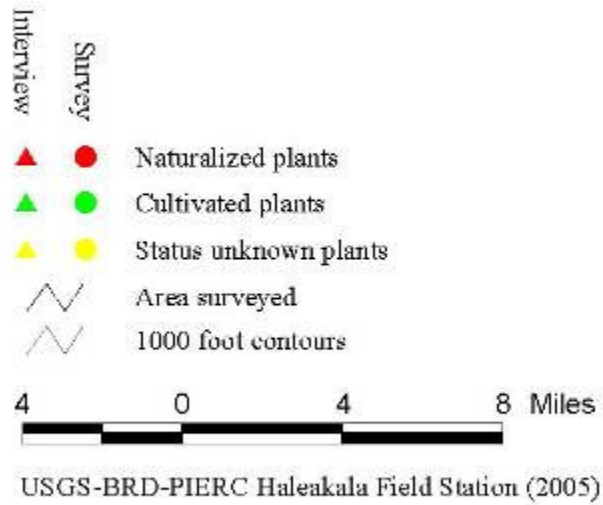
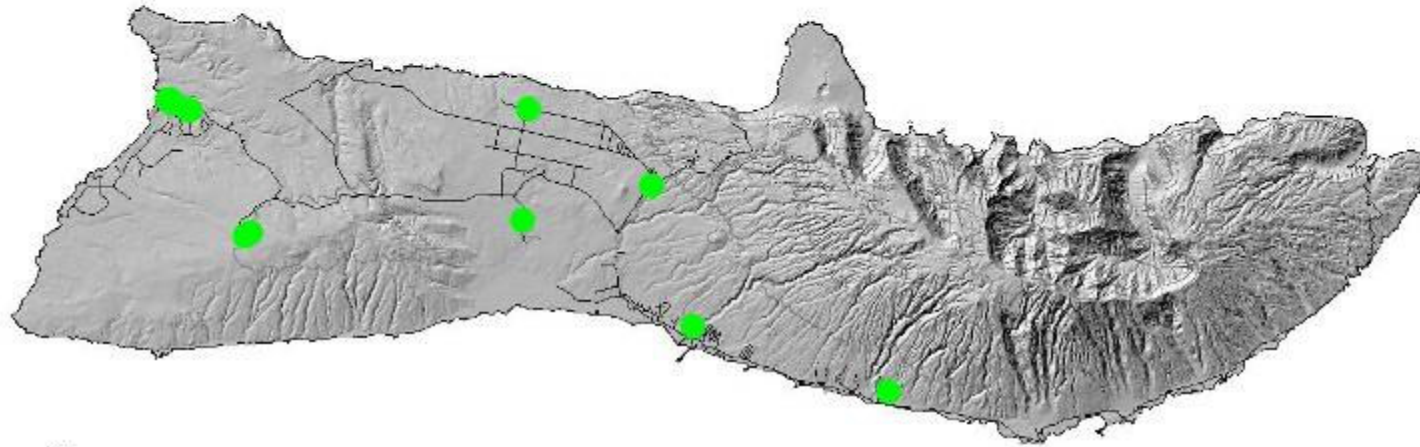
# Known distribution on Molokai of *Ficus benjamina*



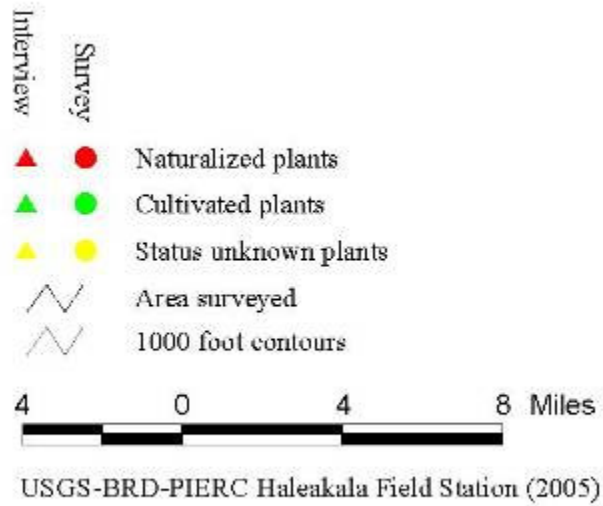
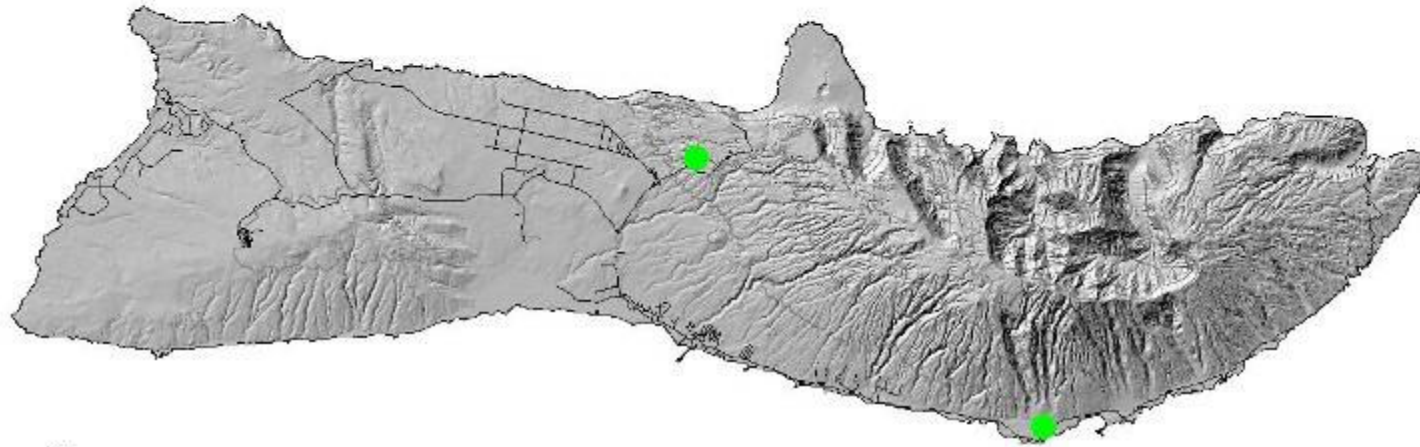
# Known distribution on Molokai of *Ficus carica*



# Known distribution on Molokai of *Ficus elastica*

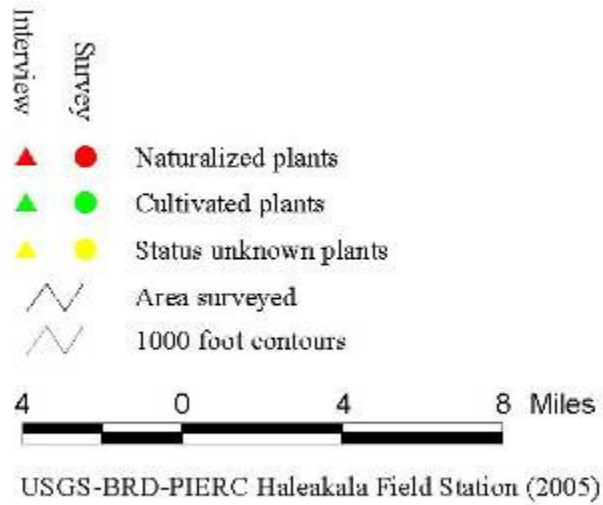
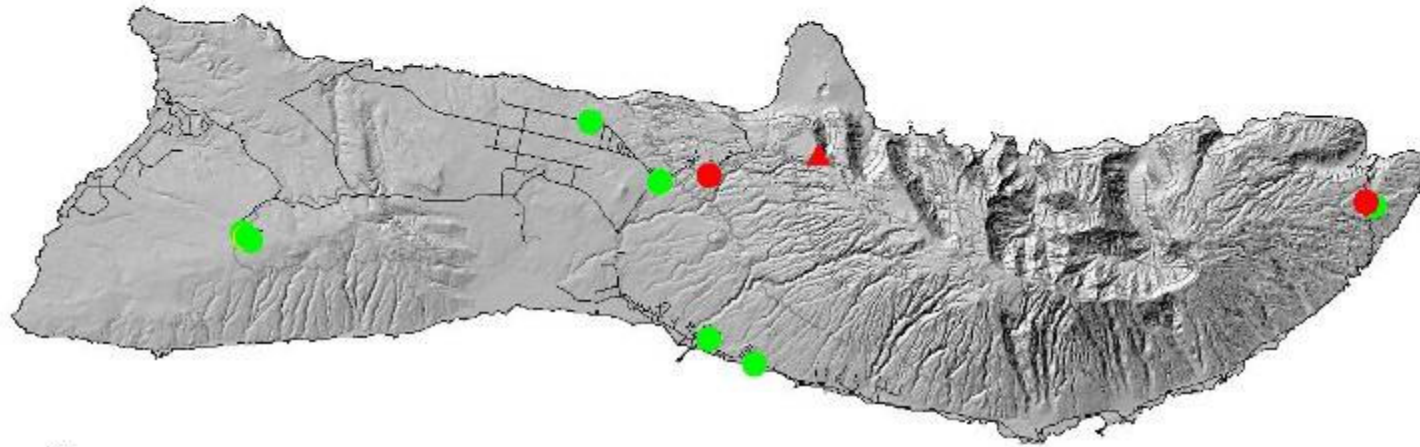


# Known distribution on Molokai of *Ficus lyrata*

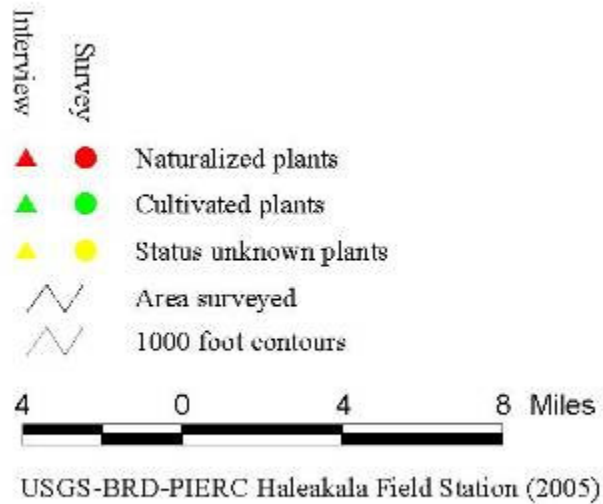
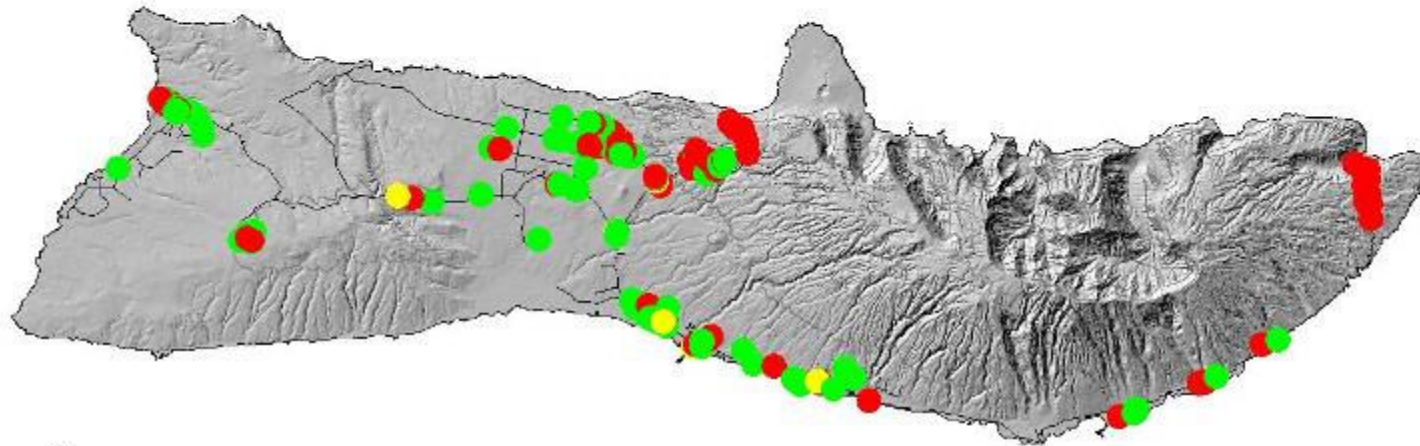




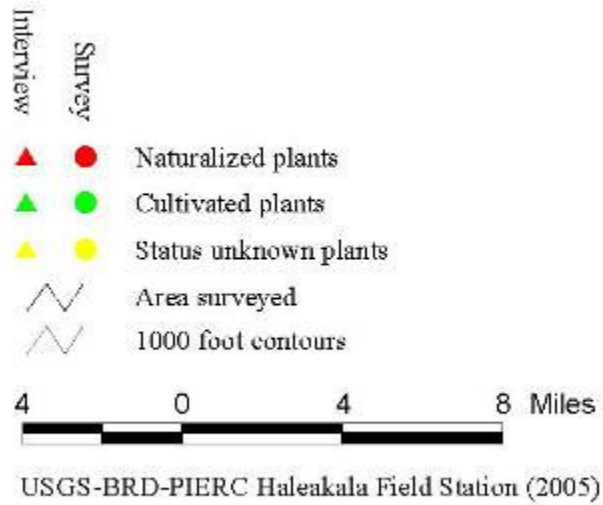
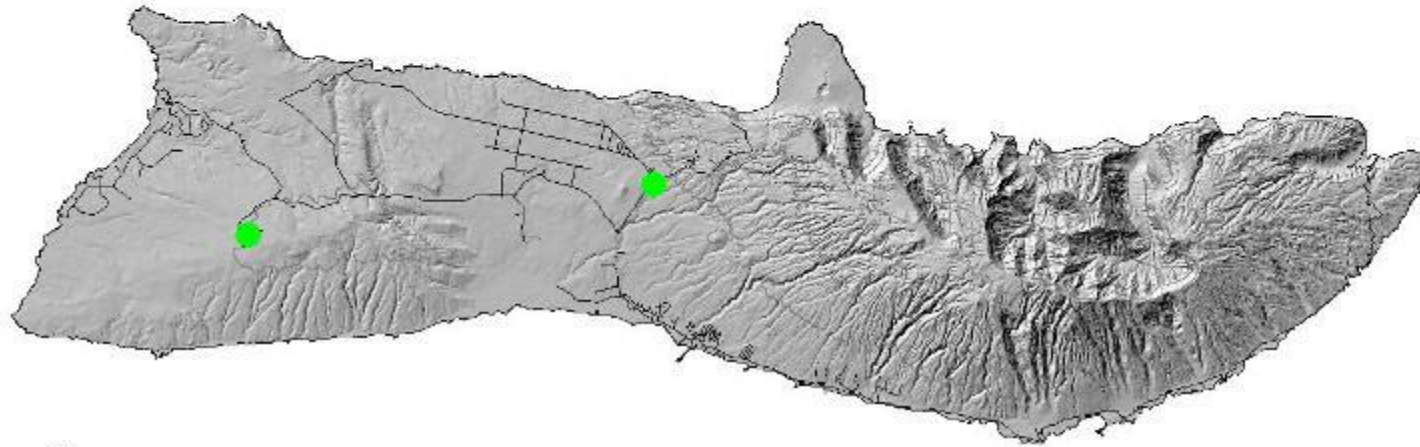
# Known distribution on Molokai of *Ficus macrophylla*



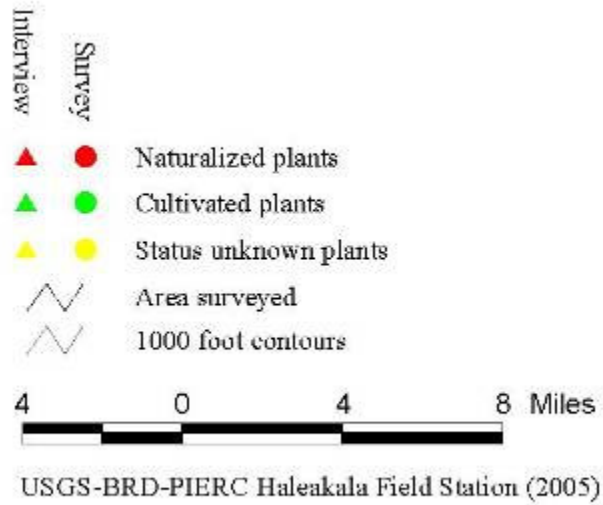
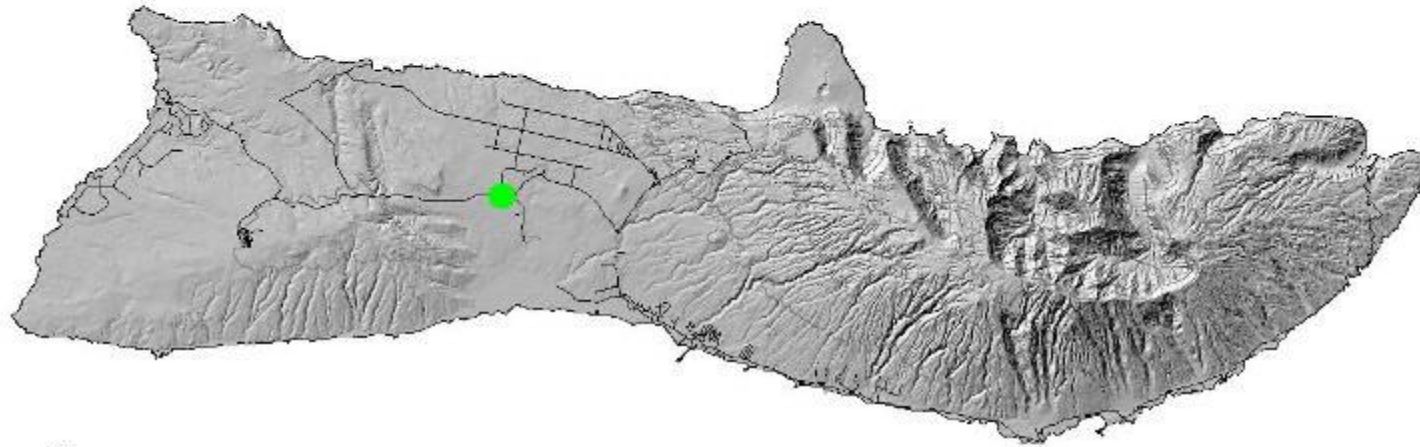
# Known distribution on Molokai of *Ficus microcarpa*



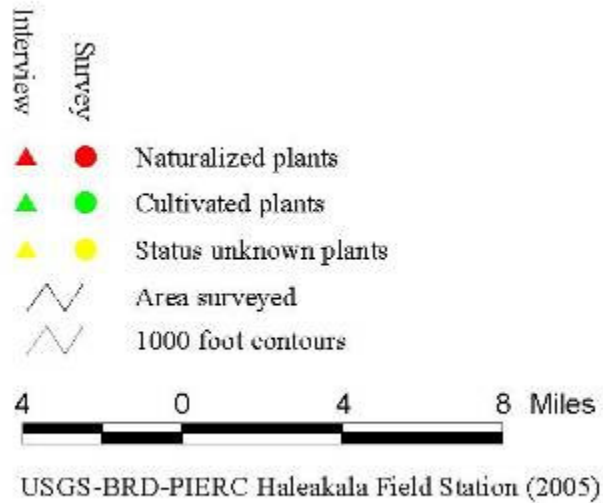
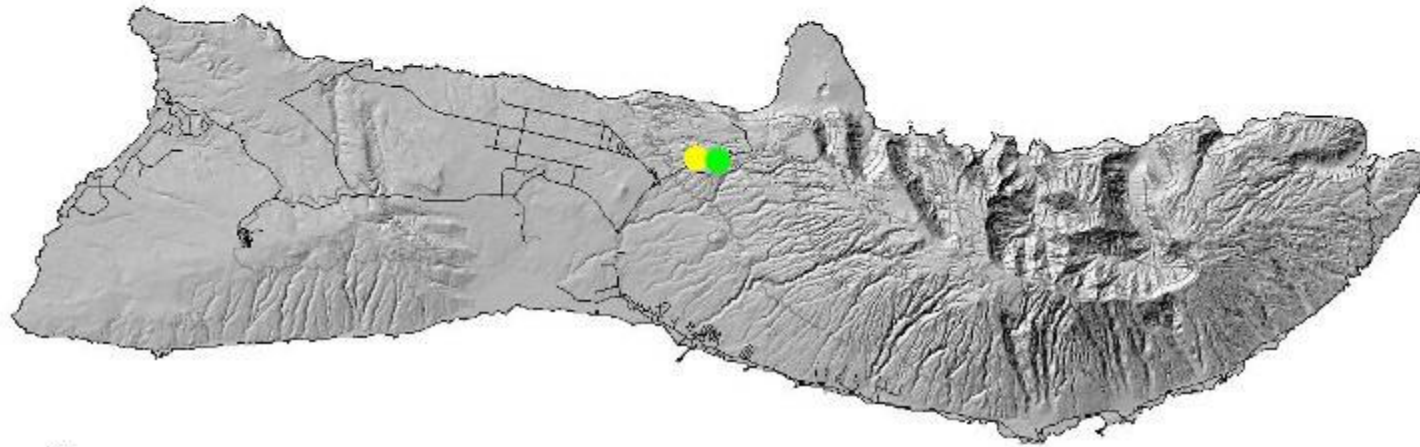
# Known distribution on Molokai of *Ficus pumila*



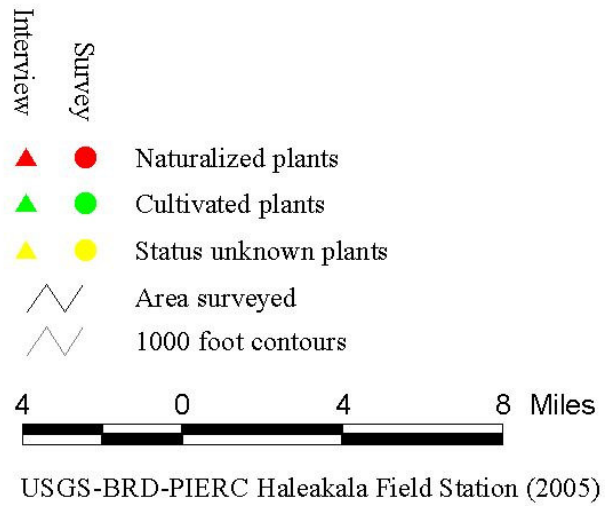
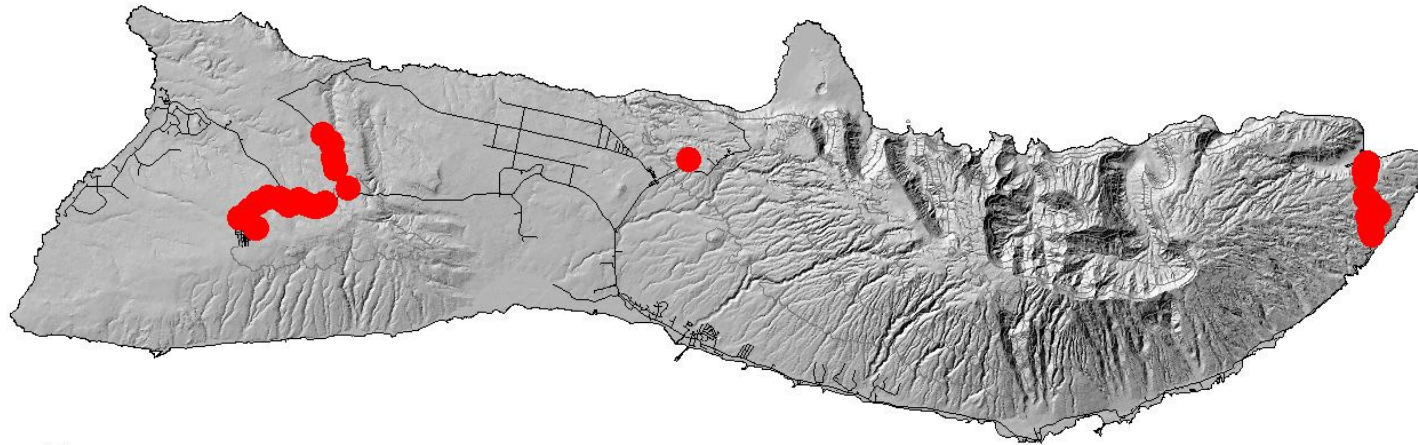
# Known distribution on Molokai of *Ficus religiosa*



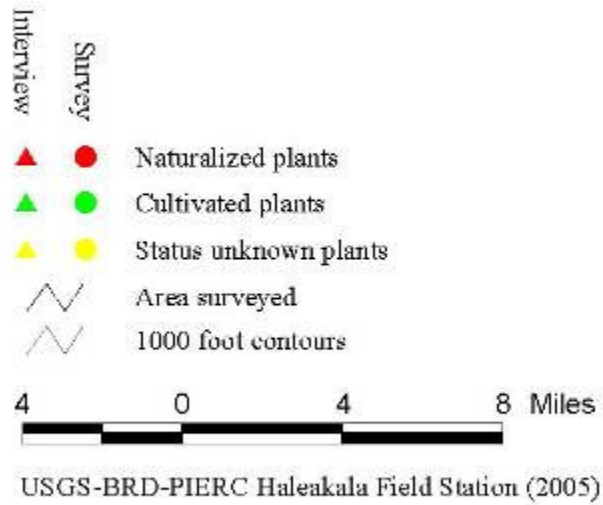
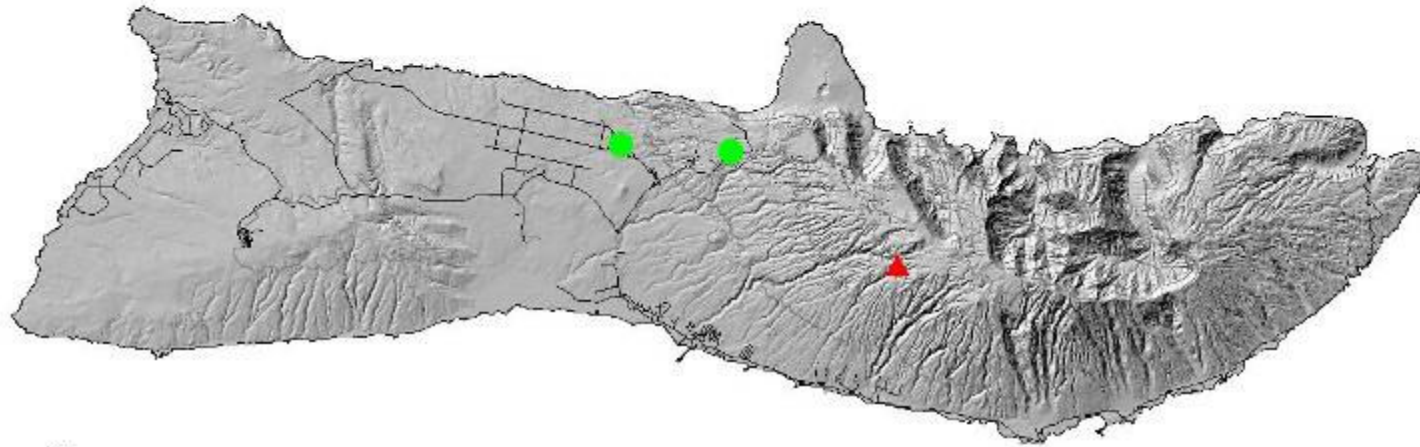
# Known distribution on Molokai of *Hedychium gardnerianum*



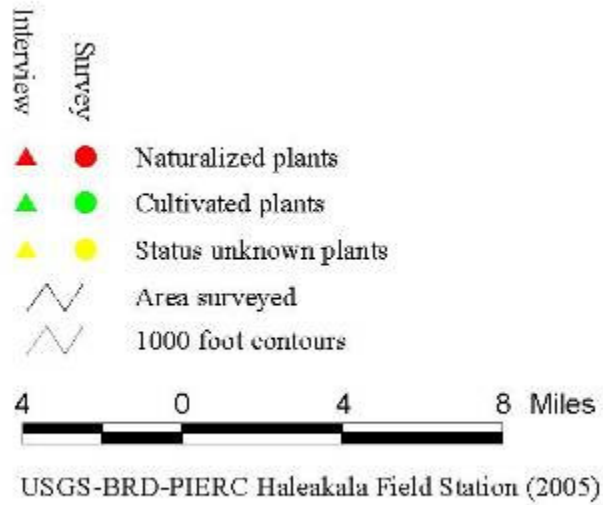
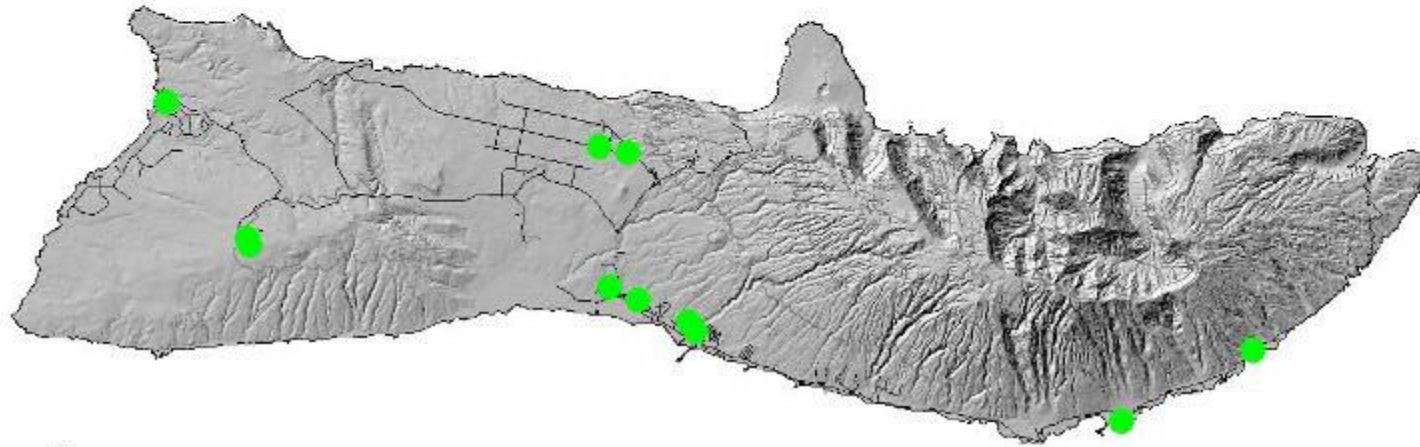
# Known distribution on Molokai of *Hyparrhenia* spp.



# Known distribution on Molokai of *Leptospermum scoparium*

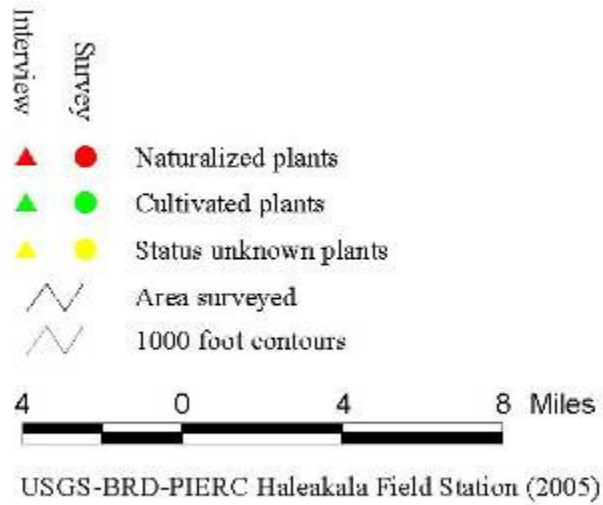
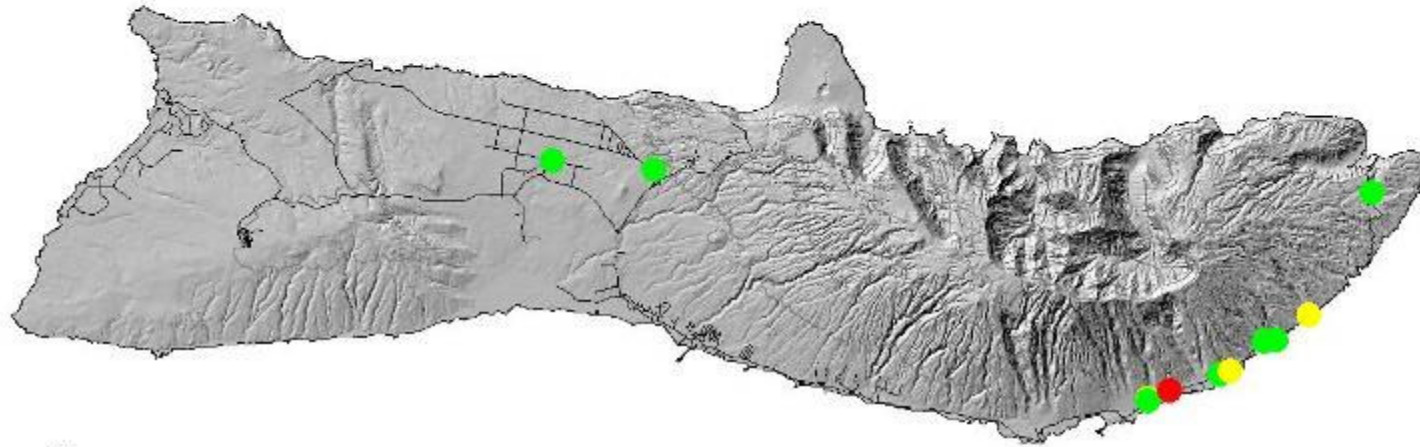


# Known distribution on Molokai of *Ligustrum lucidum*

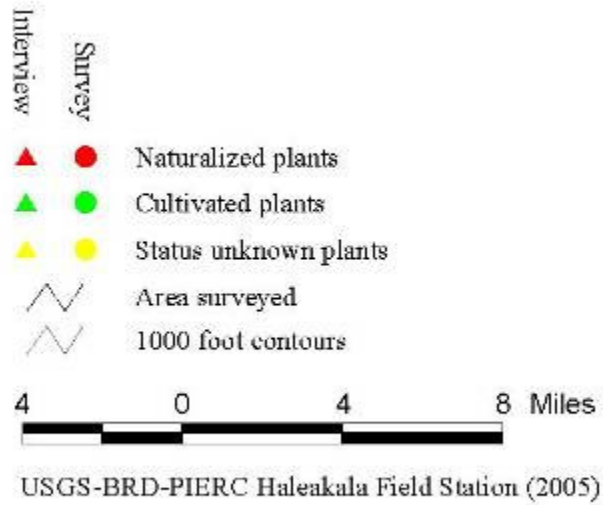
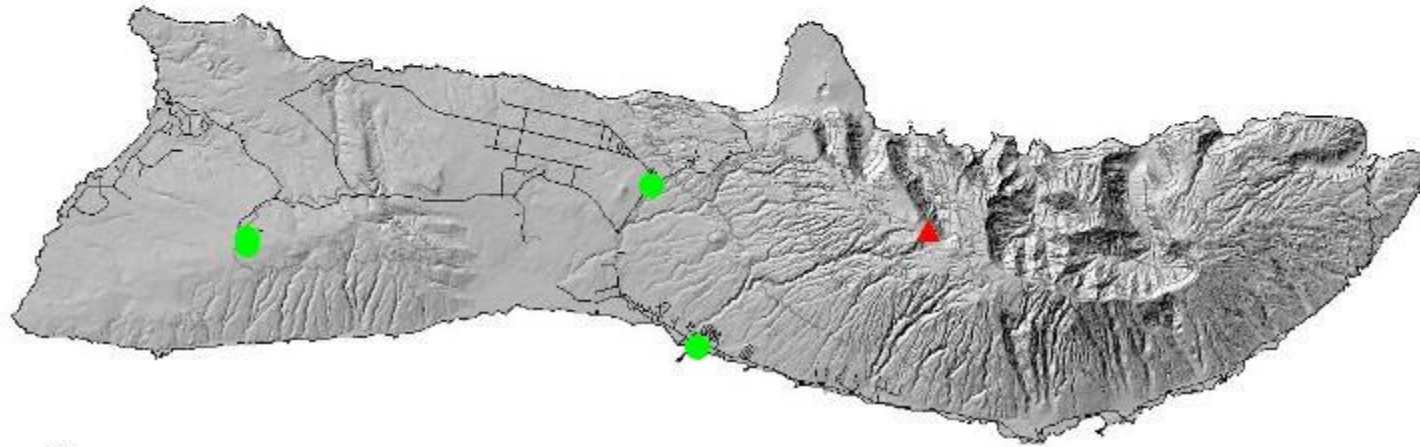




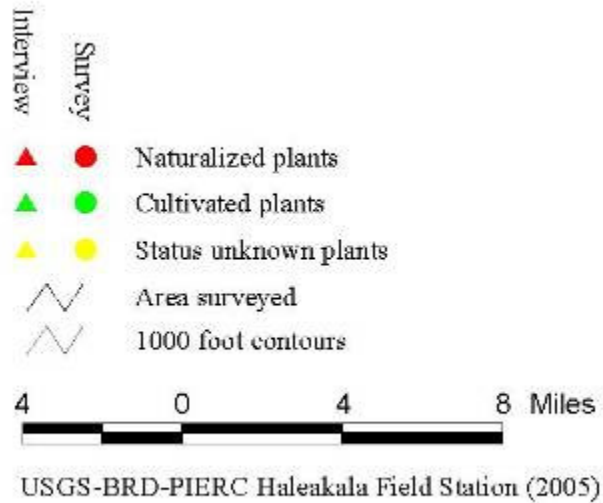
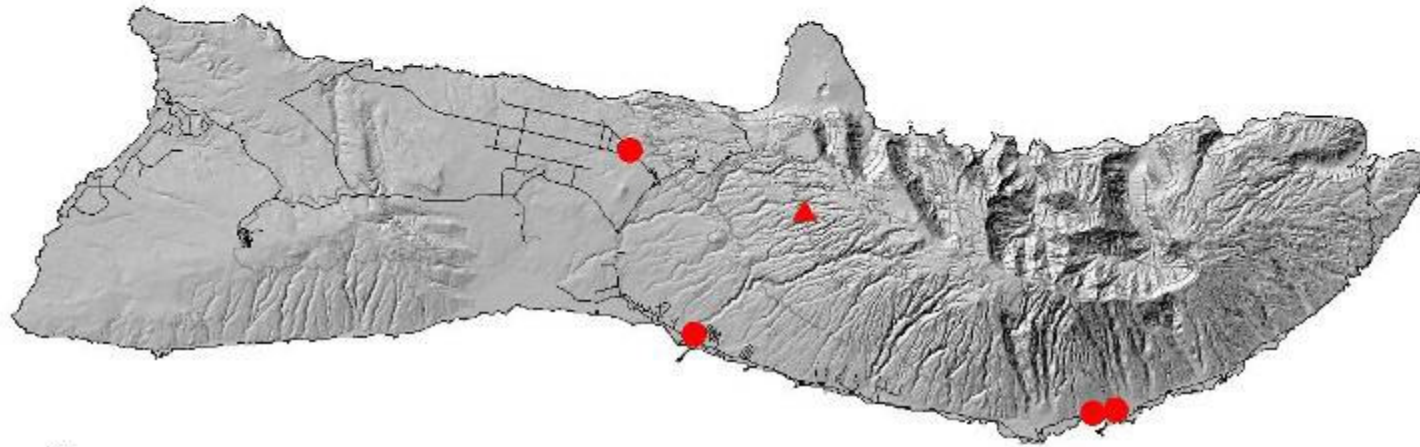
# Known distribution on Molokai of *Livistona chinensis*



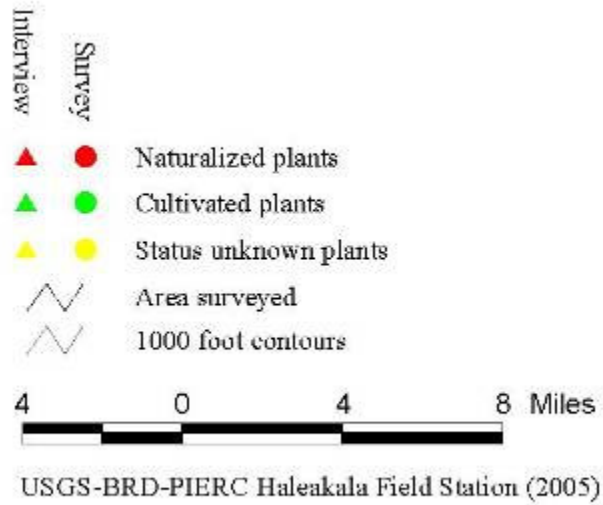
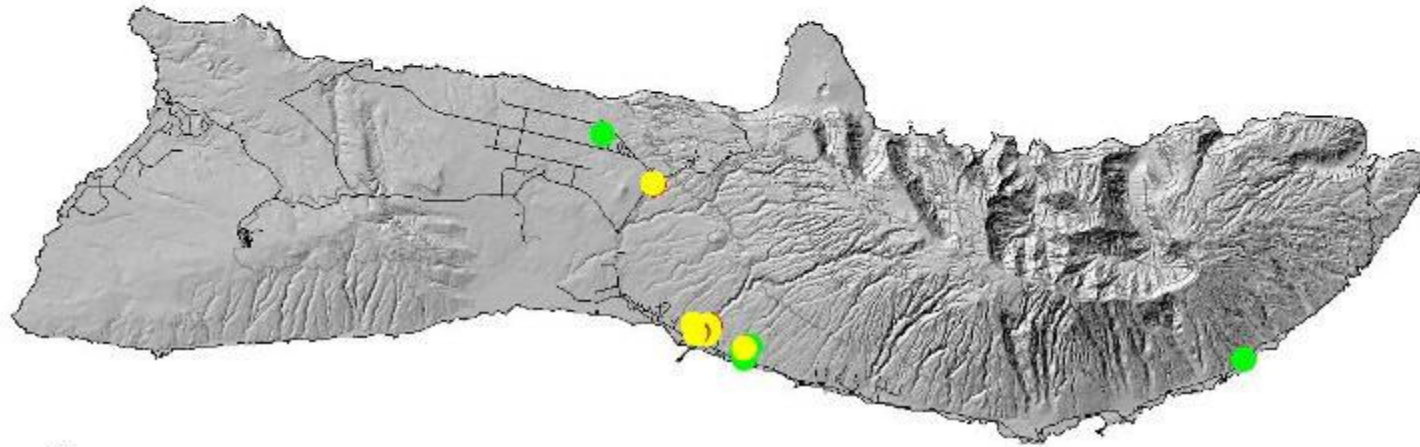
# Known distribution on Molokai of *Lonicera japonica*



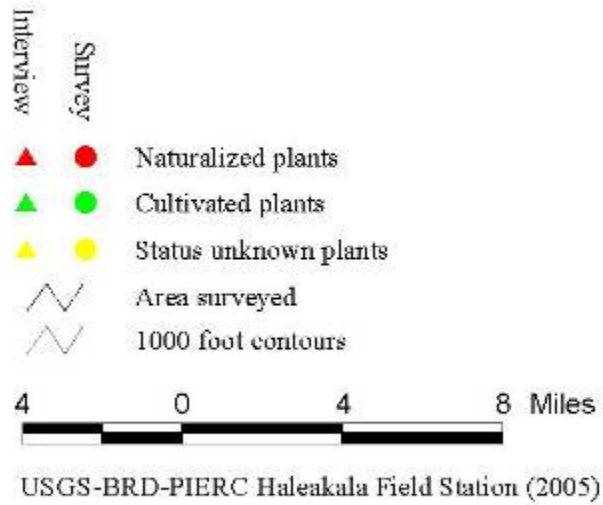
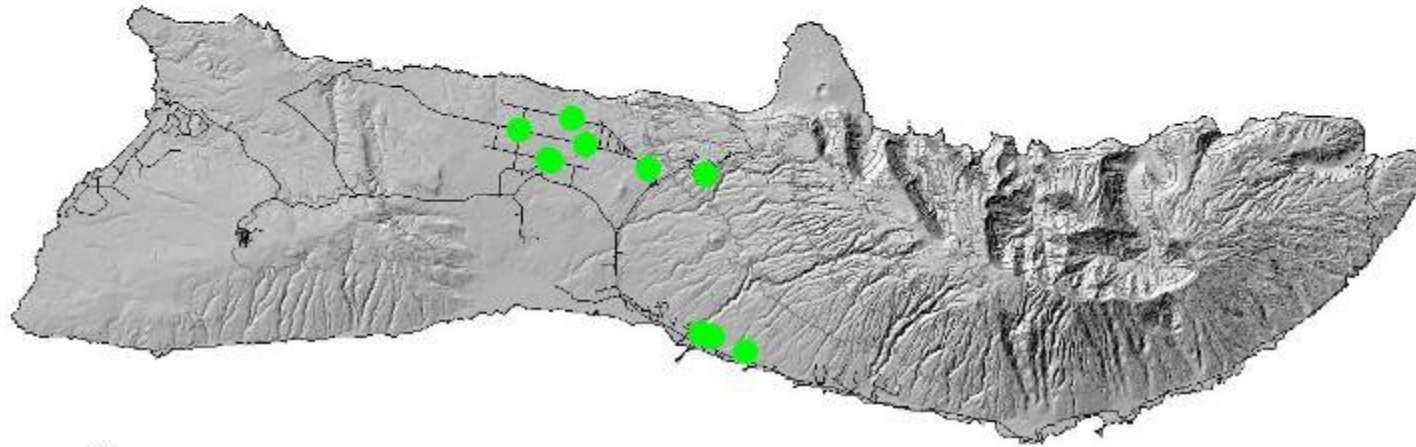
# Known distribution on Molokai of *Merremia tuberosa*



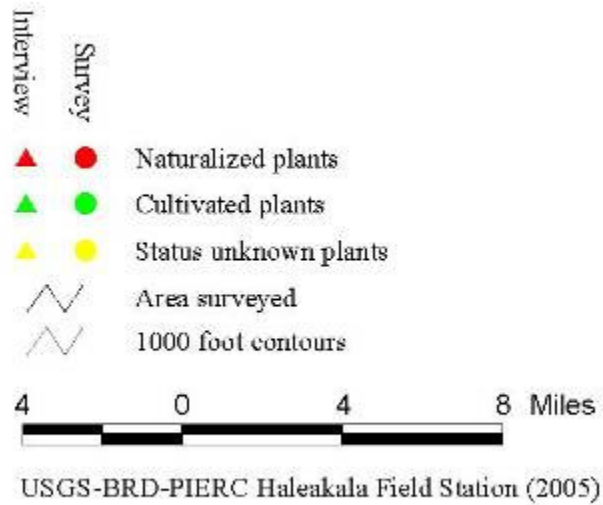
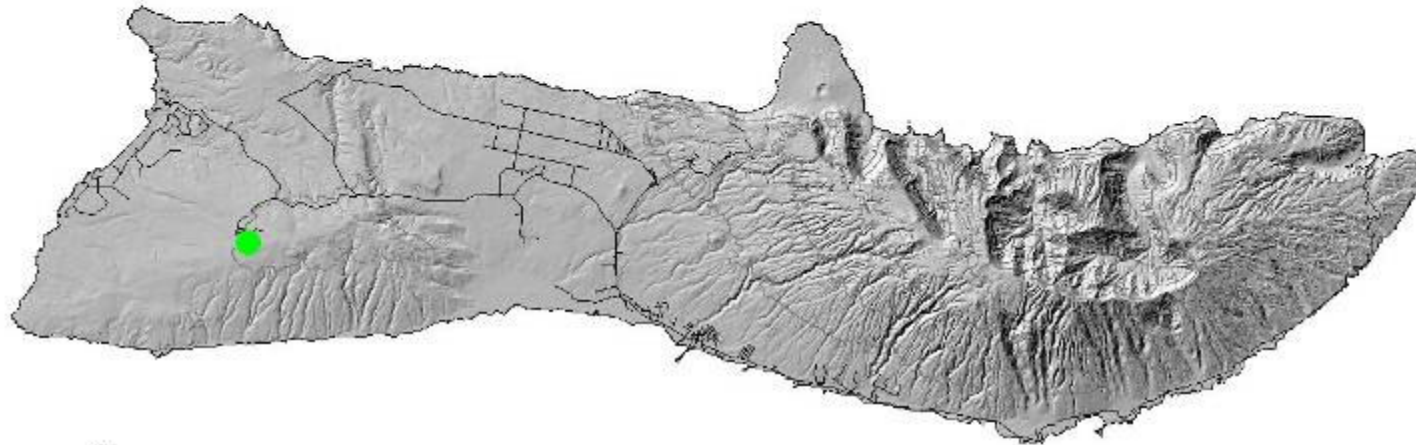
# Known distribution on Molokai of *Ochna* spp.



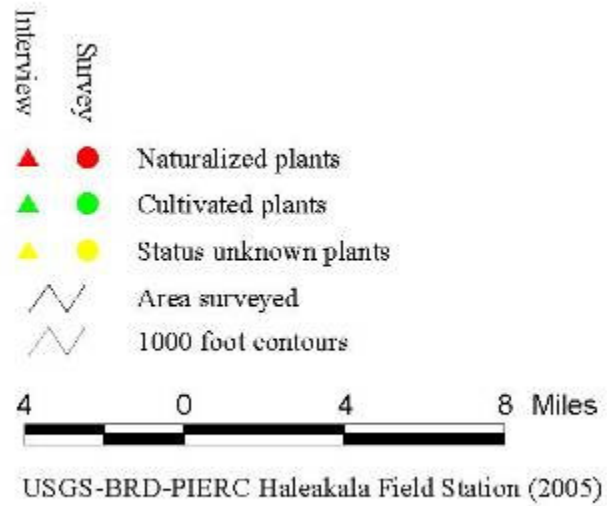
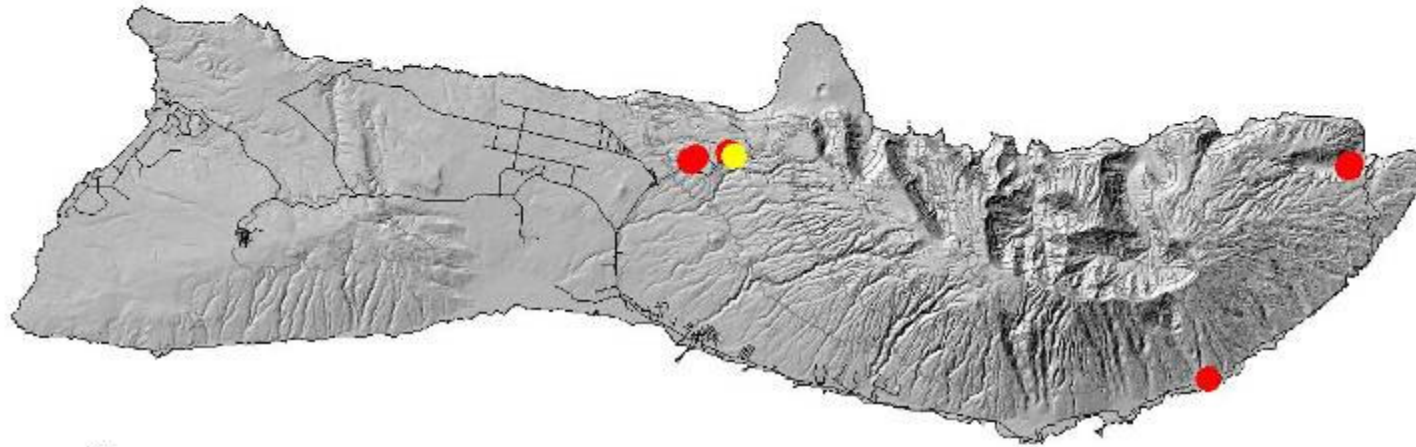
# Known distribution on Molokai of *Olea europaea* subsp. *cuspidata*



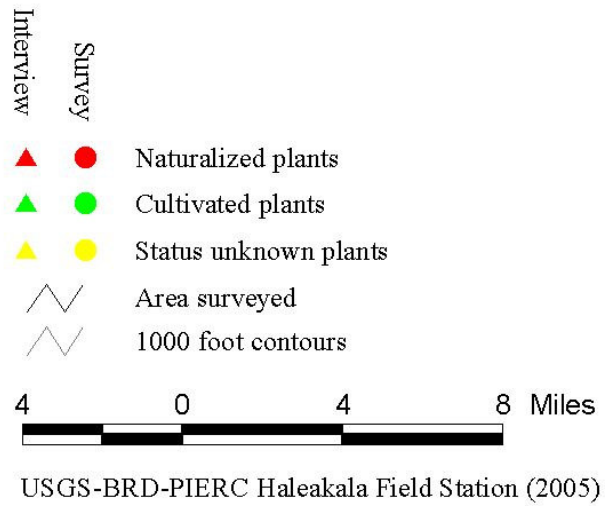
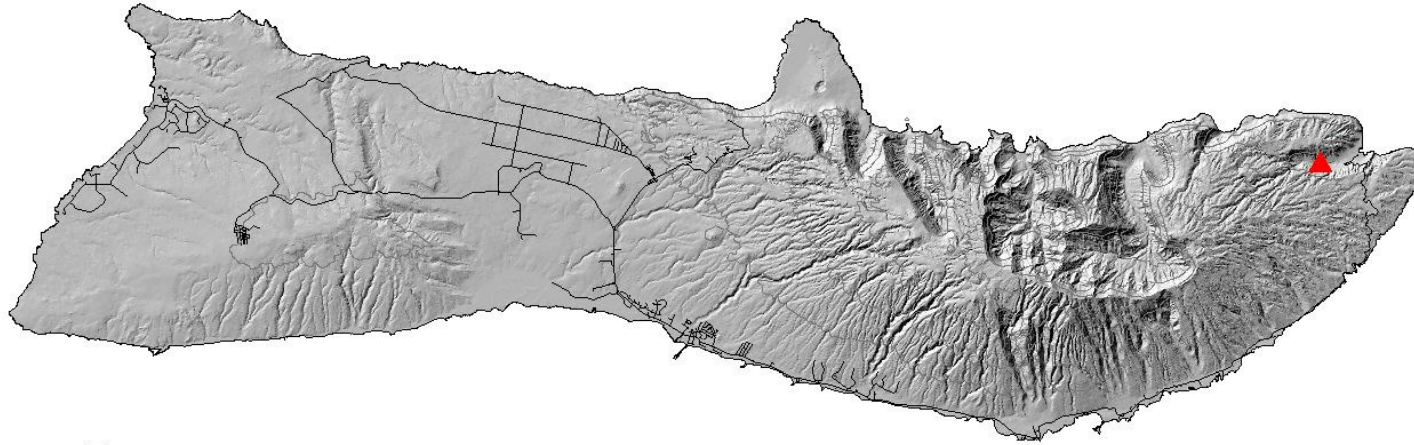
Known distribution on Molokai of  
*Olea europaea* subsp. *europaea*



# Known distribution on Molokai of *Passiflora laurifolia*

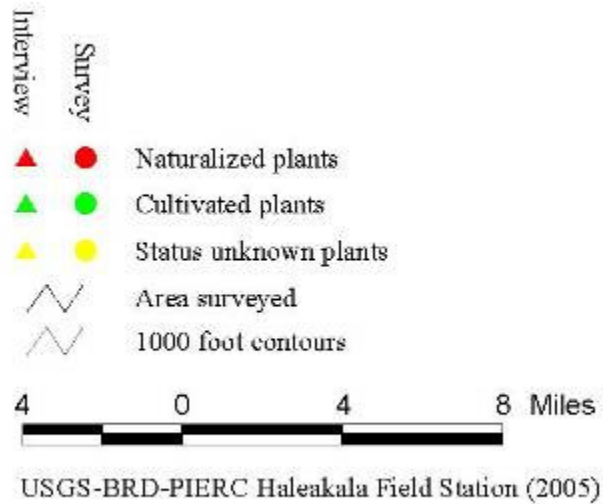
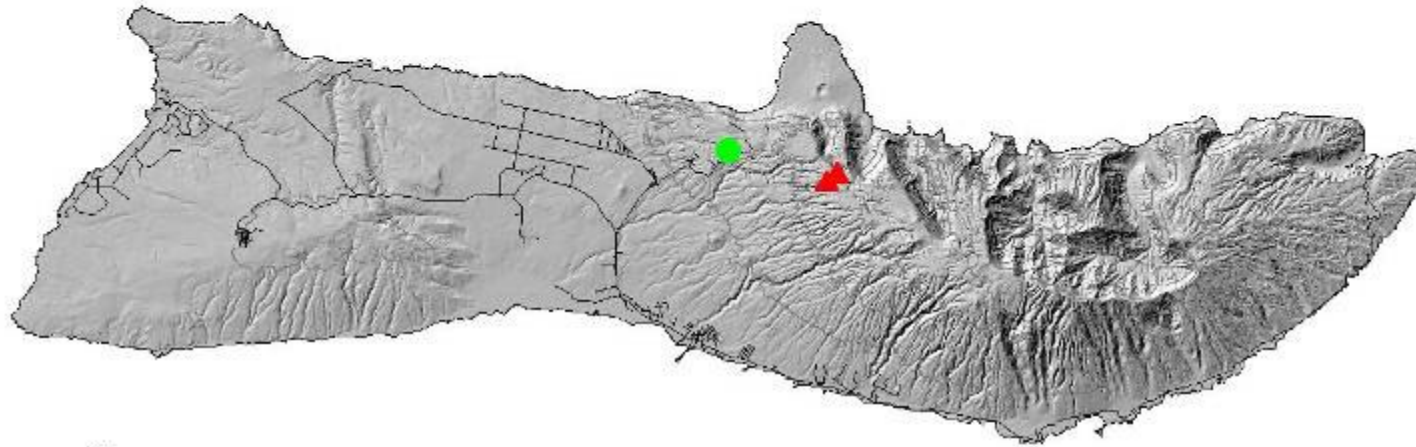


# Known distribution on Molokai of *Pereskia aculeata*

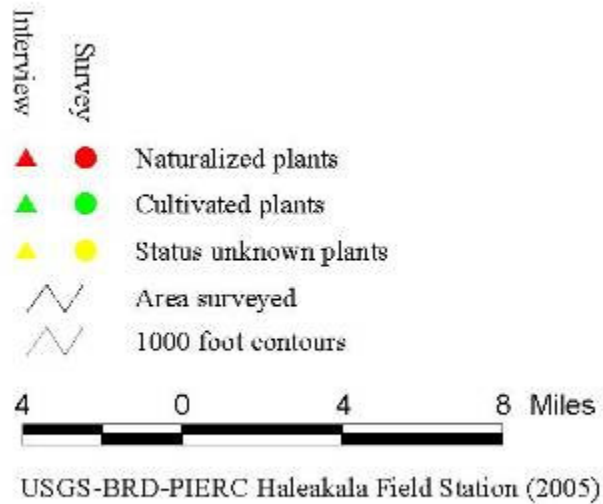
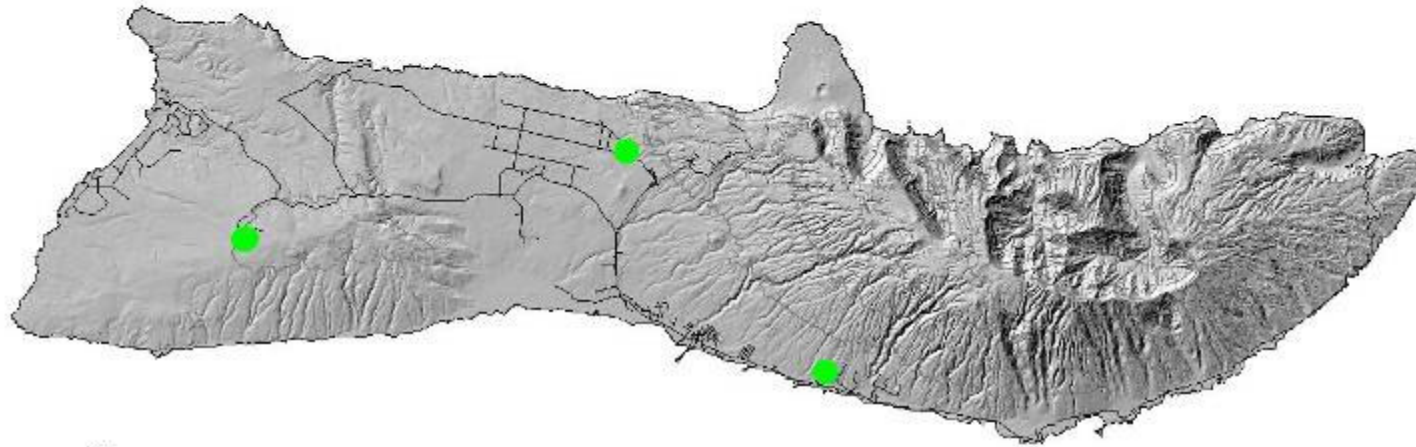




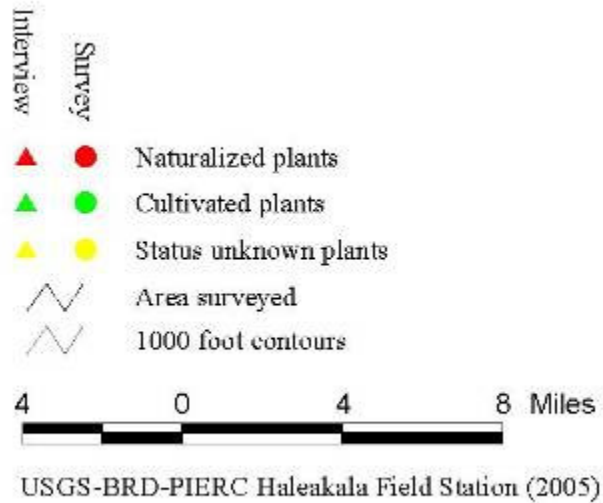
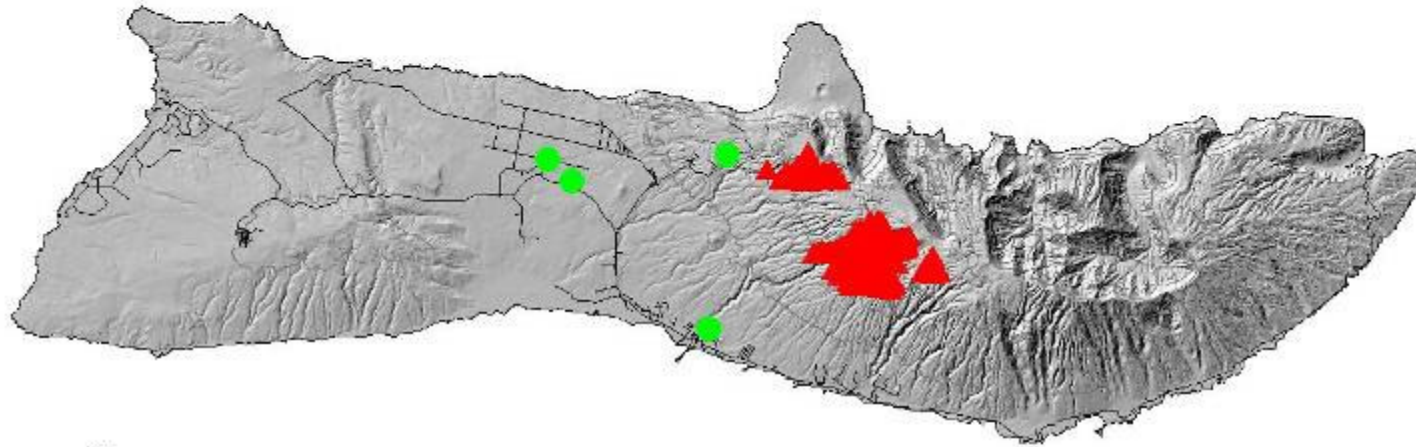
# Known distribution on Molokai of *Phormium tenax*



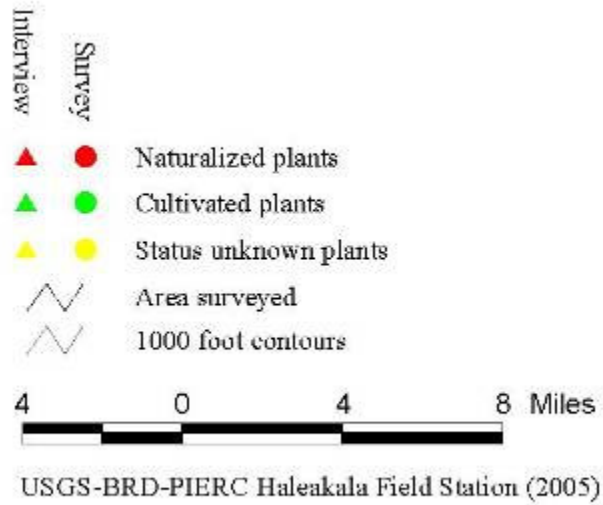
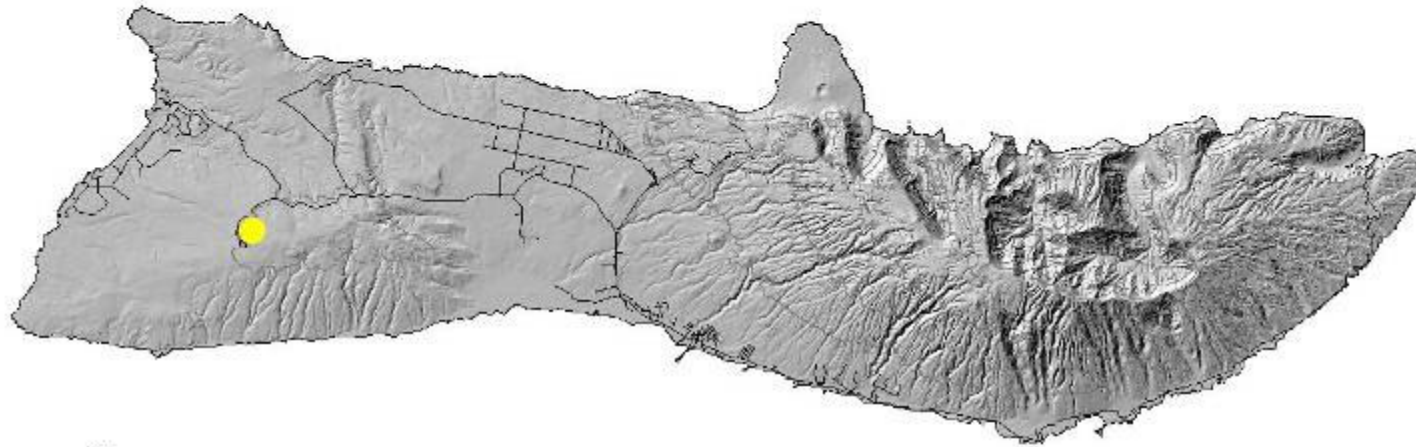
# Known distribution on Molokai of *Pimenta dioica*



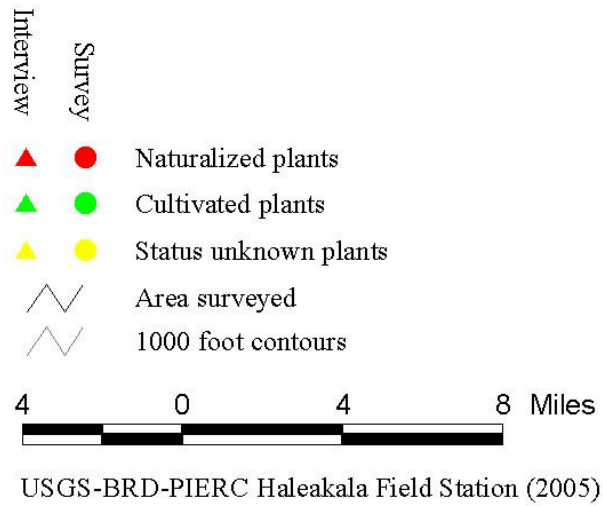
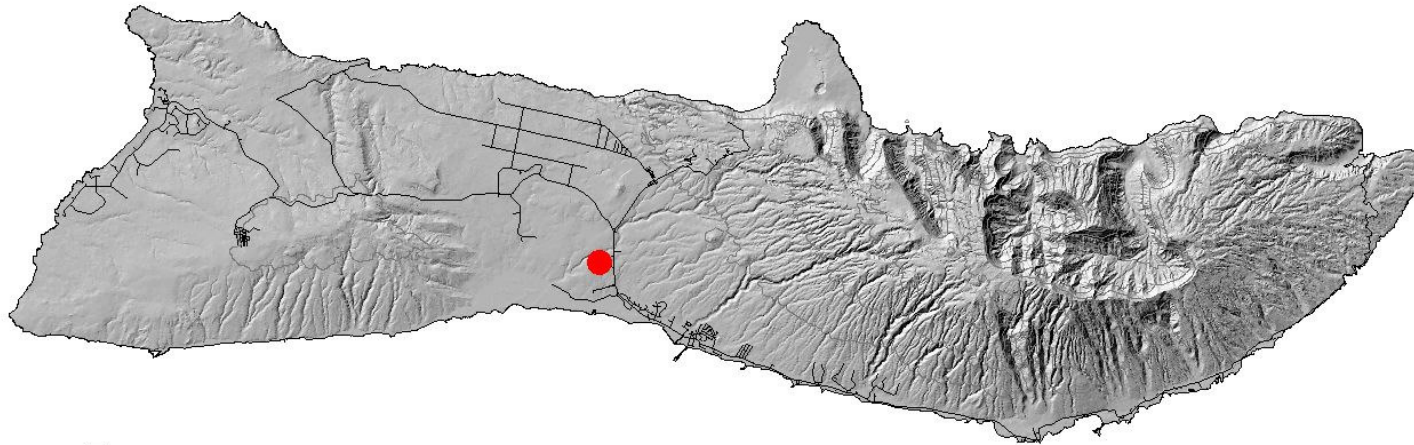
# Known distribution on Molokai of *Pinus* spp.



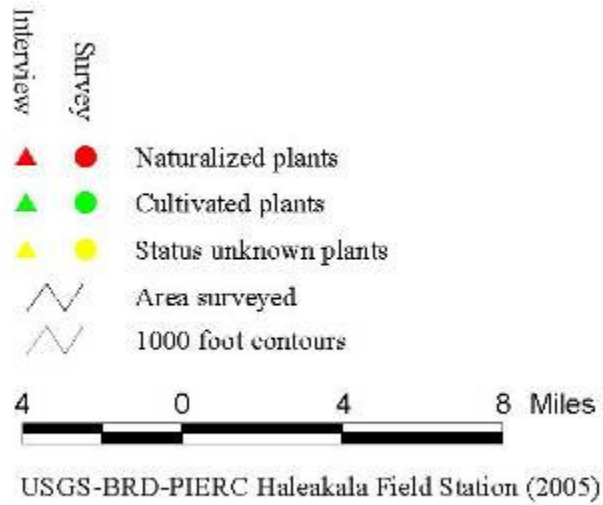
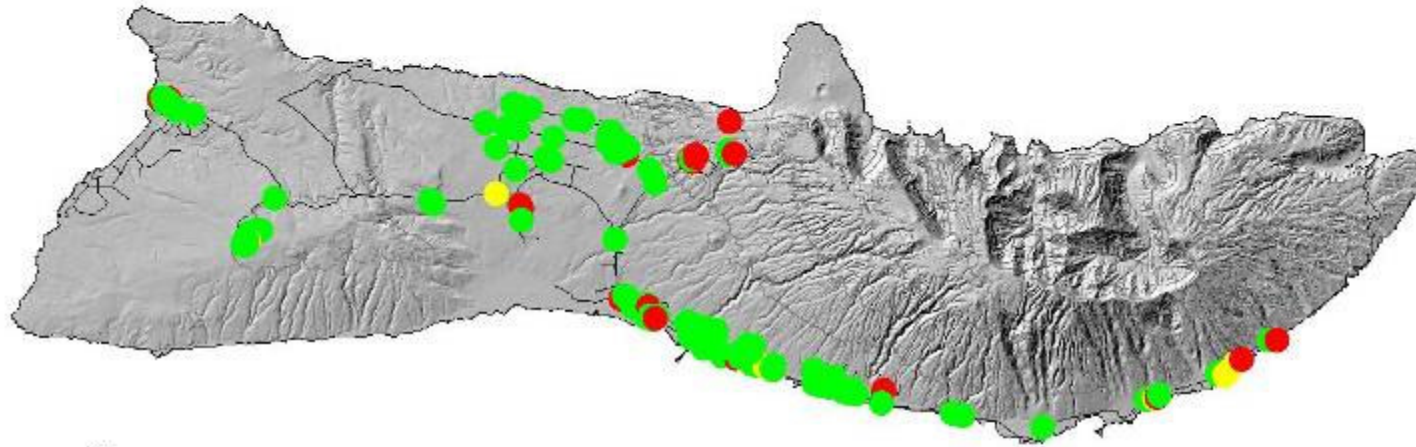
# Known distribution on Molokai of *Podranea ricasoliana*



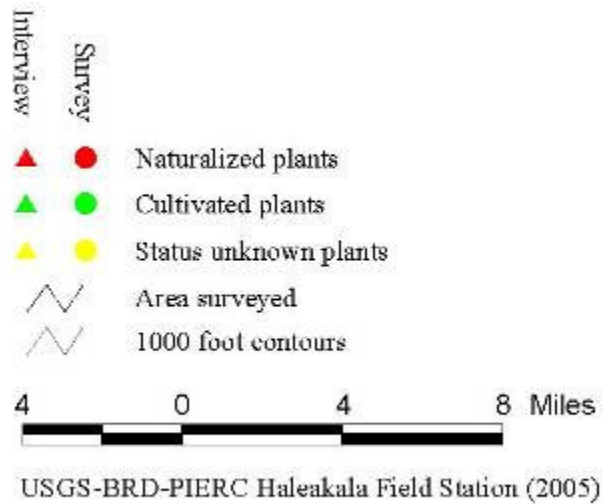
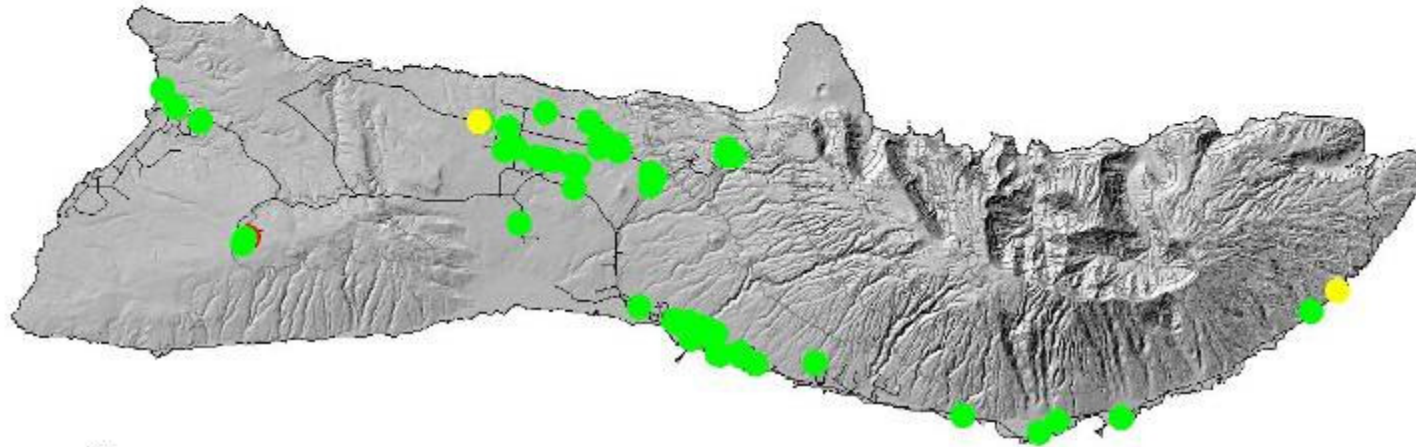
# Known distribution on Molokai of *Salsola tragus*



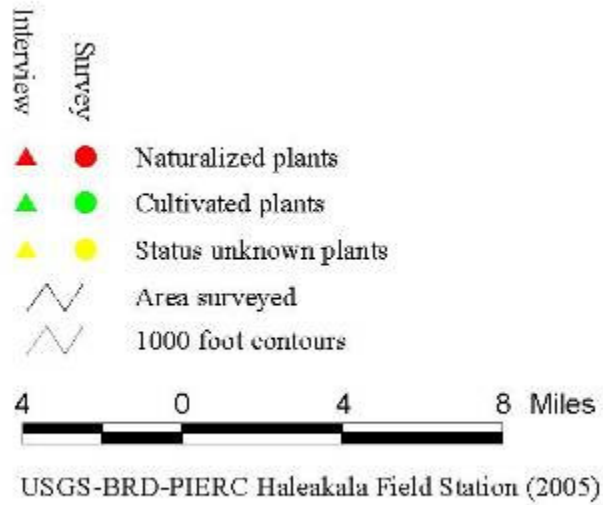
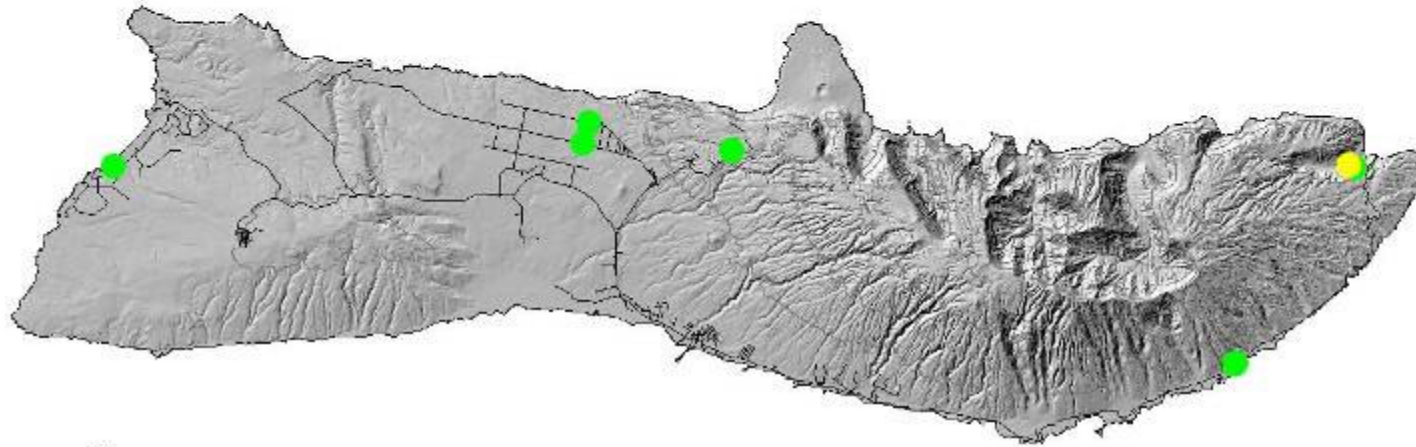
# Known distribution on Molokai of *Schefflera actinophylla*



# Known distribution on Molokai of *Schefflera arboricola*

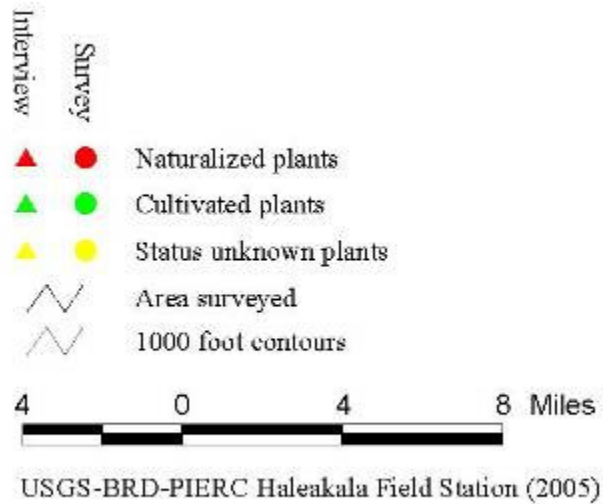
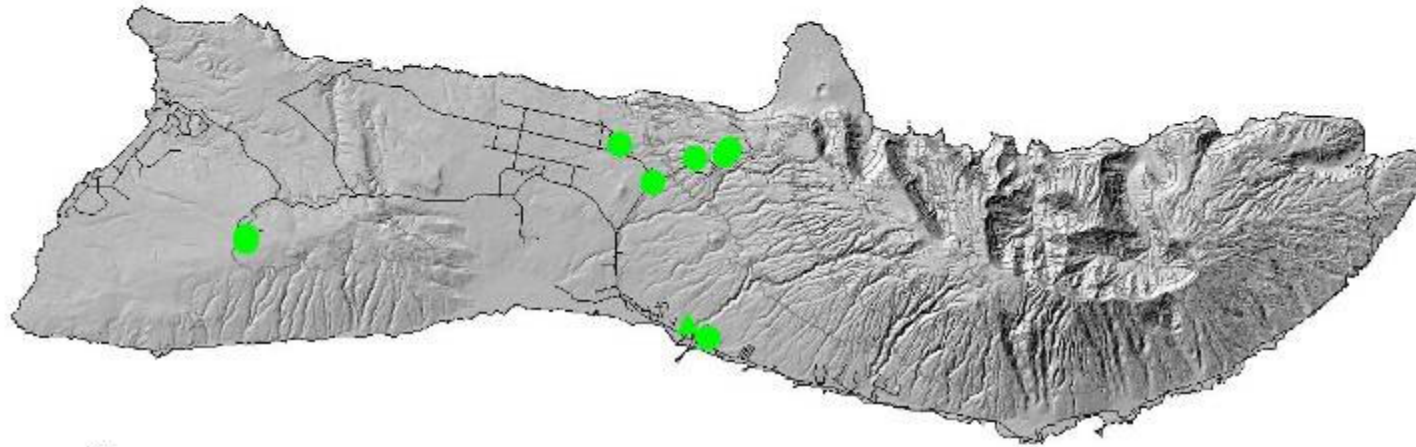


# Known distribution on Molokai of *Solandra maxima*

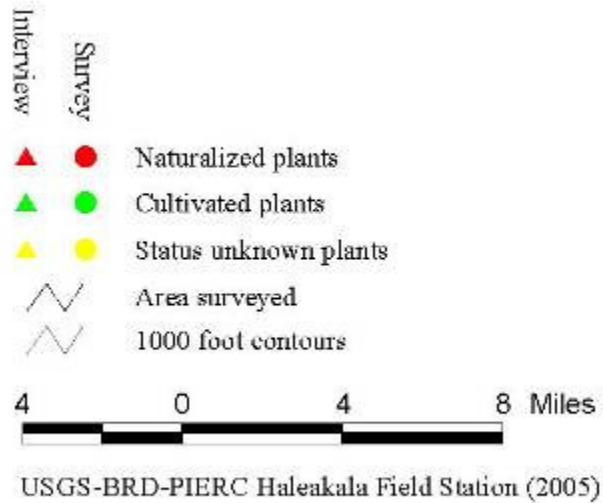
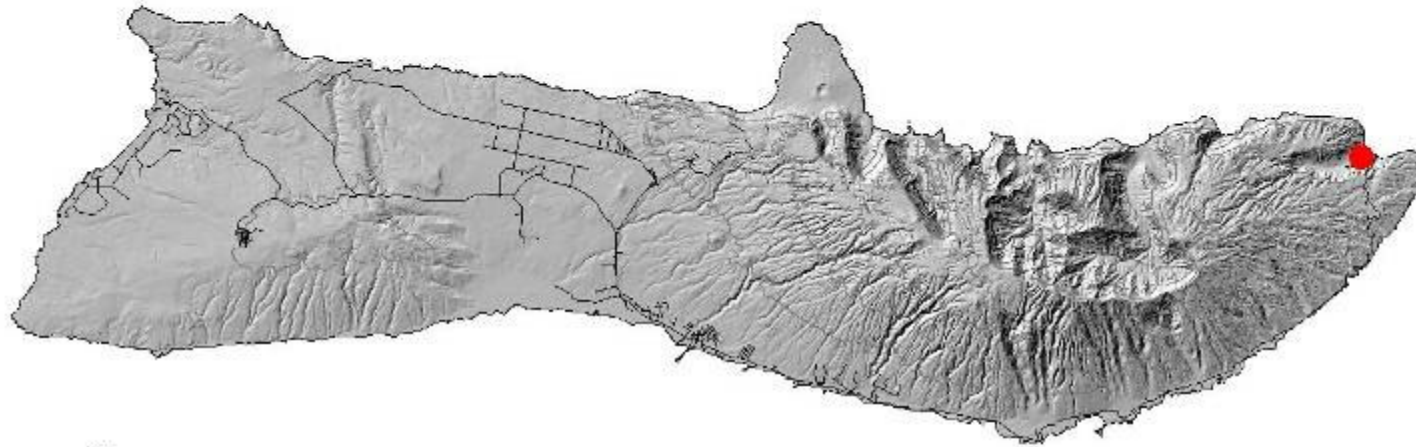




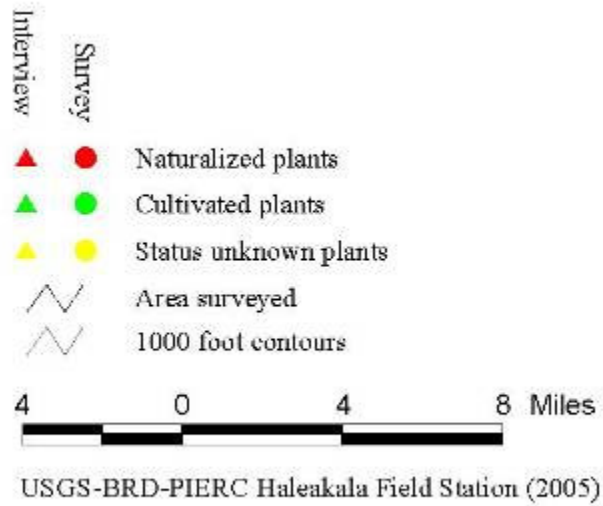
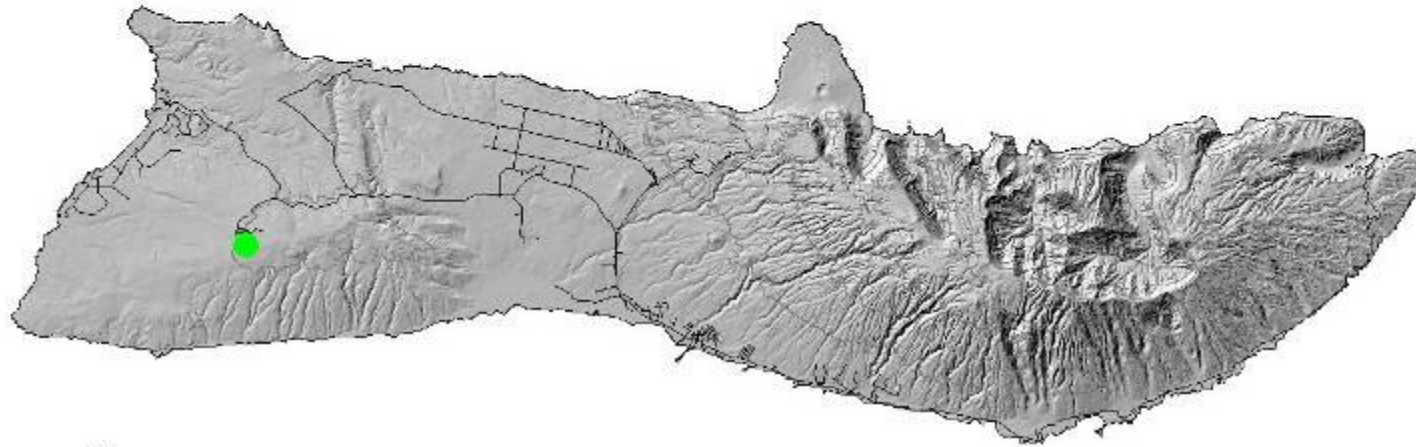
# Known distribution on Molokai of *Sphaeropteris cooperi*



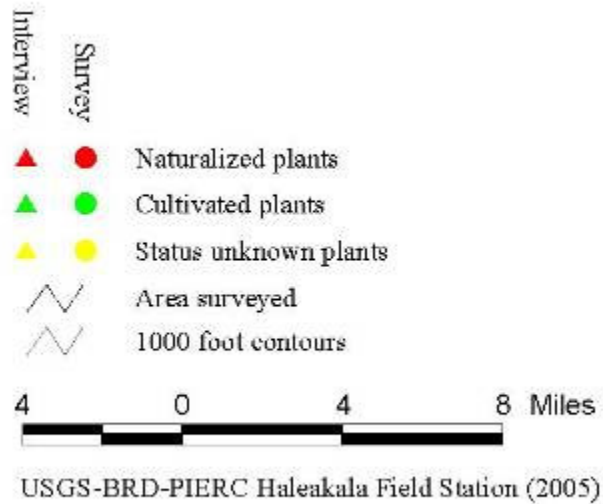
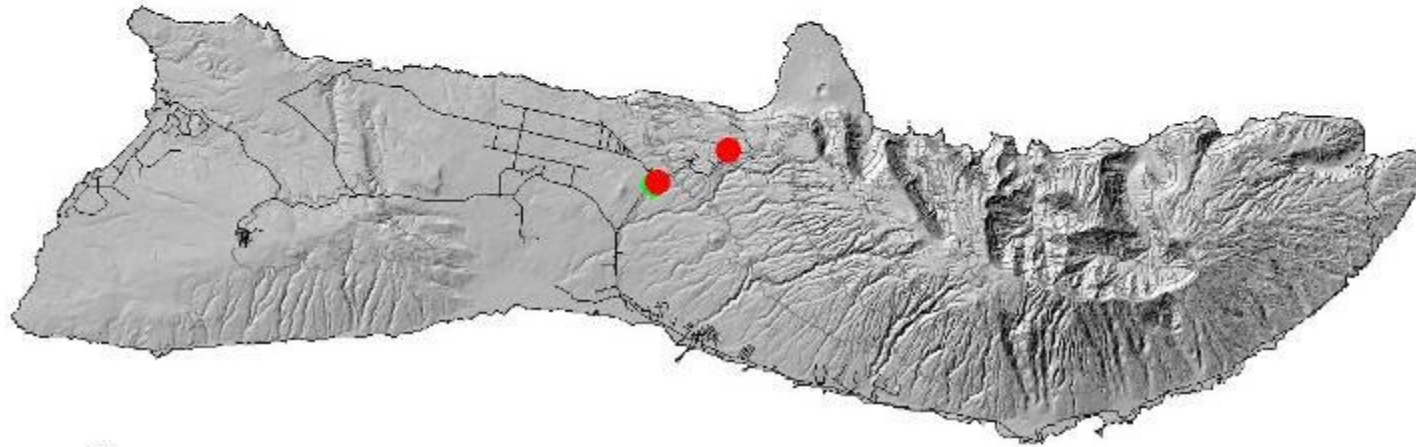
# Known distribution on Molokai of *Tetragonia tetragonioides*



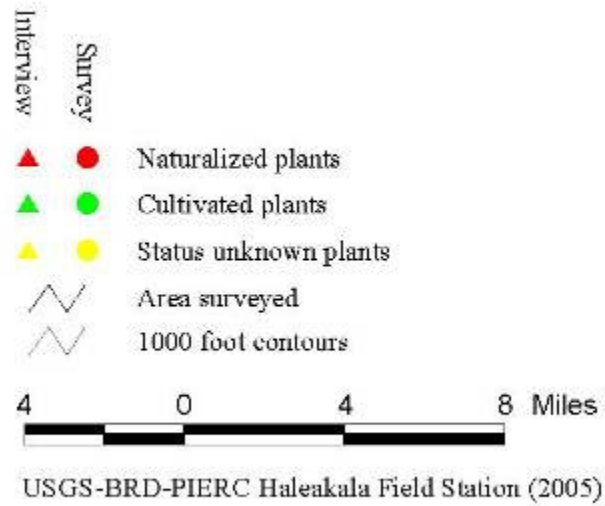
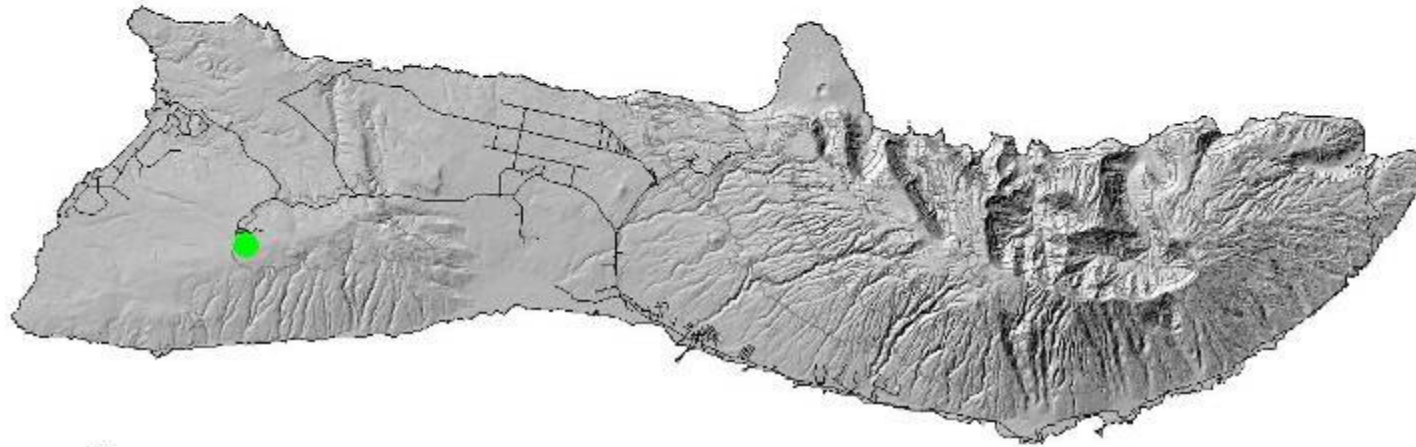
# Known distribution on Molokai of *Thunbergia alata*



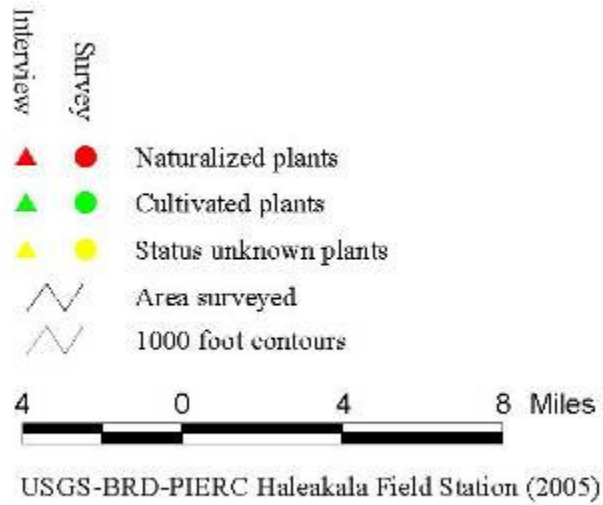
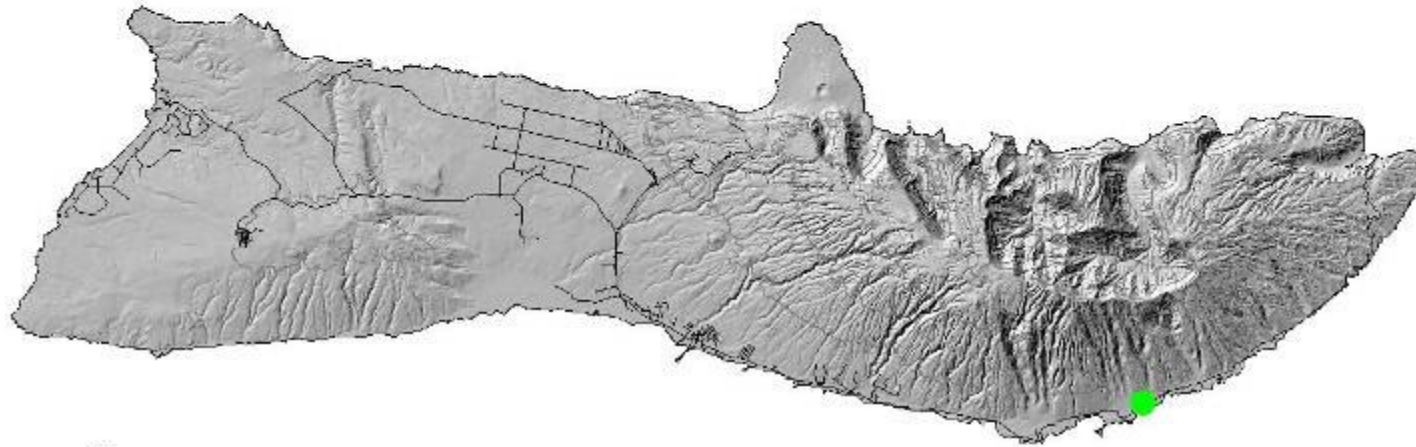
# Known distribution on Molokai of *Thunbergia fragrans*



# Known distribution on Molokai of *Thunbergia grandiflora*



# Known distribution on Molokai of *Thunbergia laurifolia*



# Known distribution on Molokai of *Washingtonia* spp.

