

20100701 KISC Early Detection Weekly Report 7

- 1) Neighborhoods surveyed: Kokee, Hanapepe, Ele'ele, Polihale
- 2) Number nurseries/botanical gardens, etc. surveyed: None
- 3) Species of interest? (Is this something to panic about, or something that is just interesting to note?)

Ailanthus altissima (Tree of Heaven)- A non-flowering, small population of this very aggressive species was seen in Kokee on our last survey day. It was seemingly restricted to one house site, though saplings were noted in several areas of the yard. It was not seen previously on our surveys, and has been on our list from the beginning. The sample was seen by Tim Flynn and Dave Lorence, who did not say they had seen it previously on Kauai. This species is notorious in the continental U.S. as a major pest of urban areas as well as forested areas, spreading both by underground suckers for some distance as well as abundant wind dispersed seed. It is dioecious. We did not find it to be clearly spreading by seed, since any small plants pulled broke off at the base. It is possible that this plant has been spreading only locally by vegetative means.

This species scored a 21 on the HPWRA, which has a lot of good information about the plant. Some of the most important aspects about it are that it is well suited to Hawaii's climate; it naturalizes and becomes very invasive in native areas, agricultural areas, and urban areas where introduced; it is allelopathic; it produces copious seeds; it is fast growing; and it can mature in less than a year. A positive find from the WRA is that it is well controlled by herbicides.

This find will almost certainly be recommended for control.

The tenant was home and we discussed the plant with her, and exchanged phone contact information. She has worked on plant control projects with Katie Cassel and was fully supportive of removing the plant from the area. We've spoken with Katie Cassel about it as well. The current recommendation is to monitor for flowers at the site, preferably from different saplings. This can ensure that we have the proper identification, and that specimens could document its presence in Hawai'i at both NTBG and BISH. It would also be good to know if there are both male and female plants at the site- if so there would be potential for an existing seed bank.

Cissus verticillata- Found more of this potential target- it was being cultivated in 2 different home gardens in Ele'ele.

Tribulus terrestris- Opportunistically noted more of this species of interest to HDOA at the makai side of Hanapepe beach park.

Dillenia suffruticosa- We identified a submitted specimen (KISC- 2, collected 4.22.10) collected from the Wailua Homesteads area, and confirmed the ID. So far the only

confirmed locations for this plant are from this collection of about 3 individuals (according to the collection data), and a single specimen cultivated at NTBG. This still represents a potential target for control.

Morinda citrifolia- We confirmed the ID of a submitted specimen (from KISC, collected 4.28.10) of Noni collected from the Wailua River State Park area where it was abundant.

4) Name of any new island records found:

Euphorbia lactea- This cactus-like Euphorbia was found spreading by vegetative means on cliff sides in Hanapepe. Also noted on these cliffs was what appeared to be *Callisia repens* naturalizing. Plants were all sterile. Fertile material would be necessary for complete ID and documenting of its naturalized status.

Pinus elliotii- This species was heavily planted in the Pu'u ka Pele Forest reserve, and was seen spreading rather abundantly from planted sites. Several other species of Pinus as well as other gymnosperms are naturalizing in the Kokee area, and some have been vouchered at NTBG. We plan on gathering previously vouchered, naturalized species from their collection for inclusion in the HBS records, particularly because to date no gymnosperms have been documented as naturalized on Kauai.

5) Any surveys done that are a follow-up or delimiting survey for plants previously found? None

6) Any species, previously deemed "actionable" found? Cultivated or naturalized and in which neighborhood? None.

7) Any outreach, presentations or other items of interest?

This was our last trip to Kauai! We've completed all the roads for surveying and were excited to have our most important find (the Ailanthus) of the whole trip on our very last day. It's been good fun.