20100329 KISC Roadside Survey Weekly Report 2

1) Neighborhoods/areas surveyed: Lawai, Ha`ena, Hanalei, Princeville, Olohena, Kapa`a

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?)

Pereskia aculeata- this spiny, vining cactus was pointed out to us by Tim Flynn of NTBG. He believes it was dumped in its current location (right up the road from the Botanical Garden in Kalaheo) as garden waste (other detritus was also seen in the area.) This species scored a 13 on the WRA, and would be an excellent candidate for removal pending results of further surveys. A cultivated specimen of this species from the Kalaheo area was collected by David Lorence et al. and would be good to follow up on if this were to be chosen as a candidate for removal.

Morella cerifera- an individual was spotted being cultivated at a residence in Ha`ena. The neighbor told us the plant spreads prolifically by rhizomes, and he considers it a pest. This is a dioecious species, and the individual we found was male. There may be more individuals of this species in the backyard of the residence.

Bishofia javanica- This species was planted for forestry on O'ahu and has since become extensively naturalized in at least in upper Kalihi, Nuuanu, and Manoa valleys, spread by bird dispersed fruit. It is a dioecious tree. There are no collections at BISH of this species from Kauai. It was seen in Princeville, 3 cultivated trees in 2 easily accessible locations, no naturalization noted (see pic). In one location the male and female were planted together, though no fruit was seen. We'll continue to survey for this species, which could be a good candidate for control if no more plants are seen or reported.

Melochia umbellata- Mentioned in the previous report, sparingly naturalized in Kalaheo, this species was seen again in the back area of the KNL nursery across from the Princeville shopping center. There were 6-10 plants visible from the highway but the entire nursery was not seen so there could be more. It seemed KNL had a contract to do the Princeville landscaping but this species was not noted in the residential area. We'll add this location to the list but otherwise Melochia is still a potential candidate for control. It might be good to do some outreach to KNL either way regarding removal since they are signed on with the codes of conduct.

Ligustrum lucidum- Only seen cultivated (2 large hedges in Princeville), but this species has naturalized on the Big Island, and was seen fruiting on our survey. This species will likely not be a candidate for control since it is not a survey species and is not something we know we haven't passed by before.

Alstonia macrophylla- This survey species has only been noted once on our surveys. A 10-15 m tall tree, not clearly cultivated or naturalized, was found in Kapaa. This is a fast growing tree. BISH records have only one specimen from Kauai, from NTBG Lawai. This species has naturalized on O'ahu in native and non-native forest in at least Manoa Valley, possibly an escape from Lyon Arboretum. It has not clearly formed monotypic stands there

but could be on its way to doing so- It has become a common naturalized element in other tropical areas. From the PIER page- "Introduced as a forest tree to Ceylon, *Alstonia [m]acrophylla* rapidly became naturalized in the moist region up to an elevation of 1200-1500 m. Now it is one of the most prominent species of the secondary rain forest in the islands." (Dassanayake, 1983; pp. 41-42). This is a potential candidate for control, depending of course on future surveys and reports.

Tillandsia polystachia- this epiphytic bromeliad, which was seen spreading rampantly through several neighborhoods on Oahu, was seen smothering a *Tabebuia* tree in Lawai (see pic). Tillandsias are a popular genus among collectors and show potential to become a problem in many ecotypes throughout the state. We are currently working with James Leary to come up with a control method for this taxon. We expect this species to be commonly planted (and possibly naturalized) on Kauai as well.

4) Name of any new state/island records found:

Vigna speciosa *(New Island Record)*- This ornamental was seen naturalizing in Lawai. In going through specimens at BISH it had already been collected as naturalized on Kauai, but was never written up. We'll include it in our future HBS writeup. Since this is not a survey species and is not highly detectable when sterile this will likely not be recommended for control.

Clerodendrum glabrum *(New Naturalized Record)*- This species was seen naturalizing along the highway in Haena. There are collections from the Ke'e Beach area of this ornamental and somehow medicinal plant, where it was said to be persisting from former cultivation. It was found fruiting and making seedlings at a distance from the previous collection sites. This will likely not be a candidate for control- it is not a survey species and was noted here only for its naturalized status.

Megaskepasma erythrochlamys *(New Island Record)*- this colorful member of the Acanthaceae family, which was previously found at Schofield Barracks on Oahu, was found in Haena, spreading locally in a neighborhood. It is a moderately common species in cultivation, and for this reason, is probably not a good candidate for control.

Manihot esculenta *(New Island Record)*- This species, Tapioca, is somewhat common in cultivation and often persists and spreads from cultivated sites by both vegetative means and by seed. It was seen here dominating a small gulch in a lowland, otherwise residential area. It is much too common for KISC control.

Peltophorum pterocarpum *(New Island Record)*- This species is occasionally planted as a street tree and can reproduce from seed. It was seen spreading in dry areas of lower Kapaa, and was likely planted in the general area. It is likely too common for KISC control, and is not a survey species, noted here only to document the naturalized status.

Acacia mangium *(New Island Record)*- an individual of A. mangium was collected from a rubble pile in a pasture in the Lumahai watershed (see pic). How it got there is anyone's guess. According to Skolmen, this species was not planted as a forestry species from 1910-1960, however, Jimmy Parker of BIISC collected it the same week being cultivated and spreading at the CTAHR baseyard in Wailua, and this species was also spotted on a survey of a CTAHR site on Oahu. This species is being site-managed by Army Environmental in

Kahuku on Oahu and would be a good candidate for removal depending on what we find in future surveys.

Livistona chinensis *(New Island Record)*- this palm species, which was spotted naturalizing in several different neighborhoods before a fertile naturalized specimen could be found, is fairly common, both in cultivation and as a naturalized species, however, this is the first specimen from Kauai to be collected for the *Herbarium Pacificum* collection, probably due to the difficulty of collecting palm species.

Pittosporum pentandrum *(New Island Record)*- This species has naturalized on O'ahu in urban landscaped areas, neighborhoods, and secondary and native forest, spreading by bird dispersed fruit. It was seen on surveys spreading from cultivation in Princeville, and noticed casually on Kuamoo Rd., spreading along roadside areas including the Alexander's Nursery area. It is not a survey species, and probably too common to be controlled.

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

6) Any species, previously deemed "actionable" (e.g. kudzu) found? Cultivated or naturalized and in which neighborhood?
Typha sp.- this species was found in a pasture in Kapaa. It appears from a distance to be T. latifolia, but it would be good to follow up on the population and collect a sample for ID.
Arundo donax- this species was seen being cultivated in Kapahi.

7) Any outreach, research, presentations or other items of interest? HDOT approached us with a question regarding *Salsola tragus*. They were looking for the varietal name of the *Salsola* we have in Hawaii because they are looking into a potential biocontrol (different varieties apparently respond differently to various biocontrols.) We plan on assisting them further with this.
In addition, James Leary of CTAHR is ready to assist us in finding an herbicide appropriate for use on epiphytic bromeliads, as well as an effective application method for killing hard-to-reach individuals.

8) Any IDs (other than OED), or other herbarium-related work (label-making, mounting, etc)? IDs of random roadside species for Chris Buddenhagen. *Solanum mammosum* ID reported to OED by Charlotte Yamane. Labels were made for the remainder of specimens collected in 2009.

9) Any upcoming funding/work opportunities? None