Hawaii Wetland Joint Venture Meeting
May 5, 2006
University of Hawaii at Manoa, East West Center
Pacific Room
9:00 am-4:00pm

WETLAND STATUS & TRENDS

Hawaii Wetlands Conservation Plan –Christina & Adonia

- Draft plan is available
- Comments, additions & changes are welcomed
- Draft needs to be condensed
- Plan should be usable for group
- E-mail Christina with changes or for additional copies

Big Island – Kim Uyehara

The focus areas for wetlands and waterbirds on the Big Island are in general (1) Windward Kohala-Mauna Kea Region, (2) Hilo, (3) Kau Coast, and (4) Kona Coast. Two big issues facing the waterbirds on the Big Island are (1) hybridization of endangered Koloa with feral Mallards in the Kohala-Mauna Kea Region and (2) rapid development of the Kona Coast and the potential negative impacts on wetland resources that support endangered Hawaiian Stilt, Hawaiian Coot, and migratory waterfowl and shorebirds.

Maui – Scott Fisher

Kanaha:

- Major activities recently: dealing with the repercussions of the botulism outbreak;
- Predator proof fencing and ongoing predator control;
- Habitat restoration (primarily removal of Kiawe and Pluchea Spp.)

Kealia:

- Bird Numbers: Stilts in the past few years have numbered up to 1,079 with a total of 155 nests last year;
- Coots range from between 300 and 500; nests this year total 99, with an average number between 60-70 from year to year; in the past there have been as many as 182 nests counted at Kealia.
- Other activities include Mangrove removal with the last remaining stands removed in the Fall of 2005;
- Other major invasive species include Battis Maritima, which has been controlled by mowing;

Waihe’e

- 26-acres of wetlands (third largest on Maui);
- The Maui Coastal Land Trust has been actively working on site since June, 2004;
- Our work priority has been in the makai wetlands where for the past three years flooding in the wet season has killed most of the mature plants;

- We have mostly hand removed the juvenile Pluchea and allowed the indigenous species to return. These include: Bacopa monnieri, Sesuvium portulacastrum, Pychreus polystachyus, Mauriscus gevonicus and Schoenoplectus maritime;
- Predator problems: Mongoose, cats, dogs and cattle egrets;
- Our bird numbers are comparatively small, but growing. Consistently, we have a total of 5-7 birds, and one lone coot. Aspirations…..

Nu'u

- Nu'u is located on Maui's South-East side and is a fairly small wetlands of approximately 5 acres;
- Nu'u's remoteness has prevented some of the more invasive plant species from taking hold, and there is a very nice complement of Kaluha and Makaloa;
- Unfortunately, Cattle Egrets have moved into the Kiawe trees that surround the wetlands, and their numbers range upwards of 100 in the evenings and early mornings;
- There is a consistent population of six stilts and four coots here (and perhaps more), but it is unlikely that any chicks reach maturity.
- Currently Nu'u is owned by Kaupo Ranch, and jointly managed by the state and Kaupo Ranch.

Molokai – Areleone

The biggest issue has been accuracy of waterbird survey sites on Molokai. In February I emailed comments to Megan and Michele in an effort to standardize count locations so that where people think they are is not somewhere else (not only for accuracy, but so that someone doesn't get shot). I understand from Michele that Megan is in the process of better defining Molokai sites. I also asked that a contact list be included with TMKs and owner contact information so that permission can be granted in advance and to minimize trespassing. If and after this issue is resolved, the wetland issues on Molokai may not be some of the same issues that other islands have. Most of the problems – I call it urban degradation - are people related. As an example:

When the Maui County Planning Department issues a grading and/or building permit the system does not check with any agency to see if the property falls within a wetland, hence many small wetlands are getting filled.

Wetland education needs to be greatly increased. I recently worked with the person re-writing the 3rd grade curriculum to include Molokai wetlands and Hawaiian waterbirds. The lessons will be ready for the next semester. This will include multiple field trips and school projects revolving around the cleanup and restoration of Koheo and Ohiapilo, and a project I proposed at the KWWRF – a constructed Makaloa Marsh using reclaimed water.

Public relation issues include: removing newly planted natives along with protective stakes and ID tags, rubbish disposal (garbage vanishes from sight when dumped in water), human disturbance (target practice on the birds, burning Christmas trees and

lighting fireworks in the middle of a wetland, 4-wheeling & motor biking and other destructive behavior).

Long-term Management Needs

- Landowner agreement,
- conservation easements and/or purchase

Mangrove, batis, and rubbish removal: On-going volunteer projects
Public relations & education: Dirt bike'n & 4-wheelin', burning & fireworks, garbage dumping, target practice on birds
Loss due to development & legal filling: Mitigation banking
Streamline Permitting: SMA, Shoreline Variance, CDUA, EA, USACE 404, HI DOH 401, CZM

WATERBIRDS:

Koloa Research Update – Andy Engilis
A morphological assessment, consisting of key characters to differentiate Koloa from Mallards and Mallard/Koloa hybrids, supported by genetic analysis, is being conducted at University of California, Davis. Preliminary results, using museum and collected specimens, show we can differentiate Koloa from pure Mallards with 100% confidence and Mallard-like hybrids (male) with 95% confidence. Once funds are secure, the last batch of specimens will be analyzed and a morphometric and plumage key produced. The next step would be to field test the key on live birds.

Waterbird Research Update – Michael Reed
1) Currently have a paper in press where I (and others) analyzed the waterbird data, and I have a second half way written. The reasons I have not sent the first paper out to folks are that (a) according to the publisher, I am supposed to wait until there are proofs, and (b) it is written mostly as a paper on statistics rather than birds. The 2nd paper I am working on focuses much more on the birds - so I was going to send both out once the 2nd is in press.

2) I would like to update folks on the software I have been working on for wetland design for stilt, coot, moorhen, and koloa. The person putting the front end on the software has been slow lately, so it is not quite ready to hand out.

3) I would like to spread the word for folks to watch for banded moorhen, and report the bands to me, my grad student, or to Mike Silbernagle.

Update on waterbird database and waterbird trends – Megan Laut

Banding Record & Consistency Issues: Aaron Nadig

Waterbird database (wetland database) - Derek Masaki

Avian Influenza – Jeff Burgett
Goal: To efficiently detect the arrival of highly pathogenic avian influenza into the U.S.-affiliated Pacific Islands at the earliest possible time
Strategy:

1. Investigation of Morbidity/Mortality Events
2. Surveillance in Live Wild Birds
3. Surveillance in Hunter-killed Birds
4. Sentinel species
5. Environmental Sampling

Priority species – ducks & shorebirds
Possibility for collaboration while birds are 'in-hand" for testing

RESTORATION & MANAGEMENT:

Experience from Waihe'e Wetland – Scott Fisher

- Best management practices seem to consist of the following strategies: Predator control and eradication, invasive species removal, habitat improvement and predator fencing. The question is how to do it best: with limited funding and a small field staff. Since we (MCLT) extensively rely on volunteers we have had to tailor our work to things that dedicated (usually one-time volunteers) can accomplish. These include:
    - Having clearly delineated work areas, with tangible goals;
    - Working in areas where volunteers are pulling one or two invasive species; trying to get volunteers to distinguishing between indigenous and invasive species is dangerous;
    - Avoiding over weeding: bare ground allows for colonization of invasive species;
    - Most volunteers are not interested in predator control;

- Eradication methods for invasive species:
    - Our current challenge is with Pluchea spp.: our strategies so far have primarily involved allowing annual flooding to kill mature plants, and hand removing of juvenile plants.
    - Flooding, unfortunately, follows the law of diminishing returns.
    - Mature plants are a bit more of a challenge: in really soft soils, just after the rains hand tools work well to remove them. Once the ground hardens the only practical approach is to cut the branches with a brush cutter or chainsaw and paint the stump with garlon.
    - Our big concern: Brachiaria mutica-an upcoming challenge.

Lessons Learned from Mike Silbernagle

FUNDING & PROGRAMS:

USDA-NRCS Farm Bill Conservation Programs – Jan Surface
NRCS's natural resources conservation programs help people reduce soil erosion, enhance water supplies, improve water quality, increase wildlife habitat, and reduce damages caused by floods and other natural disasters. Public benefits include enhanced natural resources that help sustain agricultural productivity and environmental quality while supporting continued economic development, recreation, and scenic beauty.

Programmatic Waterbird Safe Harbor – Kim Uyehara
In partnership with the Fish and Wildlife Service, DLNR, and the Garden Island, Oahu, Tri-Isle, and Big Island Resource Conservation & Development Councils, USDA Natural Resources Conservation Service (NRCS) is developing a Statewide Programmatic Safe Harbor Agreement for Nene, Koloa, Hawaiian Moorhen, Hawaiian Coot, and Hawaiian Stilt. Safe Harbor assurances will be offered in conjunction with NRCS Farm Bill Conservation Programs to secure the willingness of more private and other non-Federal landowners to restore and manage wetlands, riparian, and uplands habitat for one or more of the five species.

NOAA available funds (B-wet & Community grants) – Lindsay Yates
NOAA's Community-based Restoration Program (CRP) supports priority projects in Hawaii that can address the threats to the coastal ecosystem. A model program for community collaboration, partnership building, and interagency coordination, CRP partners with grassroots organizations to encourage hands-on citizen participation in restoration projects. In addition to providing funds for projects, NOAA delivers technical support to help ensure restoration success. Community-based habitat restoration brings life back to degraded ecosystems while fostering long-term stewardship of the nation's coastal and marine resources. Restoration examples in Hawaii include: controlling alien algae, establishing native biota within coral reef systems, restoring coastal marshes and freshwater wetlands, and reducing upland erosion and sediment runoff. Two prime project examples from Hawaii are Okolehao Trail Erosion Control Restoration project and Waipa Fishpond and Estuarine Habitat Restoration project, both located in Hanalei on the island of Kauai.

Conservation Partnerships Program – Chris Swenson
Elements include:

- Partners for Fish and Wildlife
- Coastal Program
- Private Stewardship Grant Program
- Section 6 Recovery Land Acquisition Grants

PCJV discretionary funds & NAWCA grants – Carey Smith

Legacy Lands –Randy Kennedy

The Land Conservation Fund was established in July of 2005 by Section 173A-5, Hawai‘i Revised Statutes (HRS), under Act 156. The Legacy Land Conservation Program (LLCP) provides funding from the Land Conservation Fund for the acquisition of lands, including easements, for:

- Watersheds protection
- Parks
- Coastal areas, beaches, and ocean access
- Natural areas
- Habitat protection
- Agricultural production
- Cultural and historical sites
- Open spaces and scenic resources
- Recreational and public hunting area