ART MEDEIROS TO SPEAK

What as once the National Biological Survey is now the Biological Resources Division (BRD) of the USGS. Discover what it is doing on Maui when we present, Ecosystem Conservation on Maui, a slide show by Haleakala National Park's BRD biologist, Art Medeiros. On Friday, June 13, at 7 PM at the Up Country Community Center in Pukalani, Art will cover projects such as a new dryforest exclosure in Auwahi, studies of invasive weeds (Miconia, kahili ginger) and insects (Argentine ants), and surveying and protecting endangered species.

Message from the President

Hello. My name is Ray Keenan. As of April 22, 1997, I am the new president of the Native Hawaiian Plant Society. I have been active in the NHPS for three years, attending meetings and joining work parties. I work full-time for Wailea Point Condominiums taking care of their half-mile coastal seawalk. Working at the Point has surrounded me with native plants on a daily basis. The propagation, maintenance, and aesthetics of the these plants have become more than a hobby. I hope to fill this position totally with an emphasis on prioritization, organization, and education. I thank all of the board members for electing me to this important position.

—Ray Keenan

VOLUNTEER SCHEDULE

After a number of years of learning about our various projects, we have decided to modify our yearly schedule. To learn more about the native species and environments we're working to save, we're now recording information that includes species numbers, whether the plants are in flower, seed, or not, etc. Non-native plant species are also being inventoried. Hopefully, with time we can come up with strategies to efficiently deal with them. For example, we might schedule a trip to eliminate a potentially invasive weed before it goes to seed. We will also note the relationship between the plants, insects, and birds. Some insects and birds can be beneficial (by pollinating the plants), while others may be destructive (by feeding on them). In some cases, it's questionable (i.e. predatory insects which prey on other insects). Each project will require different strategies. If you have ideas, call me at 877-4024. We will send out a postcard with the revised schedule as soon as our brainstorming is complete. Until then, please use the 1996 schedule.

—Richard Nakagawa
Kanaha Pond

In 1952, in response to pressure by the group Hui Manu, 185 acres of Kanaha became a state wildlife refuge for waterbirds. Group membership included Bob Bruce, Colin Lennox, Fran Cameron, Margaret Cameron, Inez Ashdown, and Howard Powers. In 1971, Kanaha Pond was declared a National Natural History Landmark. NHPS involvement started in 1989 under Eda Kinnear, who undertook the job of restoring parts of the pond. Over the years, alien plants like pluchia, manienie and Chinese violet had severely altered the habitat. The Baldwin High Aloha Club, Baldwin High Science Club, Seabury Hall science classes and Girl Scout troops helped to clear out these weeds. Mike Perry, project coordinator since 1993, Ed Tamayose and many other volunteers, have removed approximately 20 acres of alien plant pests. It required about 7,000 person hours of labor to remove 250 tons of debris. In response to this clearing, a number of native plants came back, particularly 'aweoweo, makaloa, kahuha and pa'u o Hi'aka. In 1995, new acreage came under DLNR's management. The sanctuary is now 235 acres.

About 1500 students have passed through historical, art and natural history stations in tours set up by Renate Gassmann-Duvall and Eda Kinnear. Students from Don Gard's Baldwin High classes, MCC natural history and ethnobotany classes of Ann CooperSmith and Cathy Davenport also come to the Pond.

Over the past eight years, volunteers have planted about 500 native coastal plants. In the summer of 1996, volunteers gathered to scatter three gallons of 'aweoweo seed along the cleared roadways next to the pond. We now have many new 'aweoweo shrubs. We have also spread makaloa and kahuha seed in the water near the edge of the pond. With continued removal of alien plants, the native food sources can be re-established for the coot and koloa. The coots often build nests by stacking kahuha leaves on top of the stands of makaloa. In the future we'll focus more on seeding rather than the labor intensive out-planting. Eventually we'll replace the kiawe trees with wili wili, naio, and koa'i'a.

Wish List: Water Line so that we no longer have to waste precious time hauling water from the DLNR baseyard to the pond.

— Loma Harrison

J. L. Gressitt Rare Plant Sanctuary

Located near Kahana in West Maui, J. L. Gressitt Rare Plant Sanctuary was NHPS' first project away from the Maui Botanical Garden. Rene Sylva selected the site in 1984 to "preserve a living collection of rare and endangered endemic plants of Hawaii." Its name is a memorial to Dr. J. L. Gressitt, Bishop Museum entomologist and mentor to Rene Sylva, also father of our treasurer, Becky Lau. By August 1985, 61 rare native species had been planted in the Sanctuary.

In May, 1994, NHPS renewed the lease with Maui Pineapple Co. for five years. Twenty of the original 60 acres were returned for watershed purposes, leaving the Sanctuary size at 40 acres. At that point our focus changed and now only West Maui species are being planted. We are also working to restore the site's native woodland by removal of alien species, especially noxious weeds. Mahalo to all the volunteers who helped last year, especially Hank Oppenheimer for his contribution of more than 40 plants.

— Linda Nelson

Maui Botanical Gardens

The $90,000 master planning grant for the Maui Botanical Gardens appears to be moving forward. The NHPS, in partnership with the Tri-Isle Resource Conservation & Development Service, applied for the planning moneys in Nov. of 1996. We are hopeful that the funds will be released by the end of this month. The project will begin soon after. If you are interested in volunteering at the garden please call Lisa Raymond at 876-1813 for more information.

— Lisa Raymond

Kahului Library Courtyard Garden

Next time you're in Kahului, check out this showplace for native dryland plants. NHPS started the project in 1993, with original garden design contributed by Anna Palomino and plants from Ho'olawa Farms. Original plantings were uki'uki (Dianella sandwicensis) and 'ulei (Osteomeles anthyllidifolia), as well as creepers and vines put into the ground. Plant identification signs were donated by the Lawrence Brown Charitable Foundation. Eda Kinnear became project leader in 1994 and has since maintained it with loving care. In April, the garden was the site of a well-attended workshop on growing native plants. NHPS members Richard Nakagawa, Ray Keenan, and Anna Palomino, joined Honolulu Advertiser's columnist Heidi Bornhorst to show growing techniques and tips. They also gave away many beautiful plants. We hope for more such "happenings" at the Garden in the future.
**Auwahi Exclosures**

In 1987-88, NHPS built nine exclosures on the upper Ulupalakua Ranch lands. The aim was to protect remnants of the once-great dryland forest that covered the southern slopes of Haleakala. Since 1992, I have led the project and concentrated on weeding and fence maintenance while trying to protect what remained to see if these species would regenerate. Our success led to the US Fish and Wildlife Service granting money for further exclosures around critically endangered species. This year, we'll build one or two exclosures and continue our surveys to study growth habits of the native species found there.

—Richard Nakagawa

**Awikiwiki Exclosure**

Built in December 1987 in conjunction with the Auwahi project, this exclosure is on Ulupalakua Ranch land above La Perouse Bay. Besides the target species awikiwiki (*Canavalia pubescens*), our fencing protects ha‘o (*Rauvolfia sandwicensis*), willi willi (*Erythrina sandwicensis*), and maia pilo (*Capparis sandwicensis*) from feral goats and, possibly, deer. This, in combinations with control of alien weeds such as morning glory, has brought back vigorous growth. In the future we'll survey plant growth habits and possibly seed species from the area.

—Richard Nakagawa

**Ma‘o Hau Hele Exclosure**

This exclosure protects Hibiscus brackenridgei (ssp. *brackenridgei*), our state flower, and is located on Wailuku Agribusiness lands near Ma‘alaea on West Maui. It also protects the dry forest species Achyranthes splendens (var. *splendens*), and nehe (*Lipochaeta laverum*). Richard Nakagawa has led the project since 1993, combating both alien weeds such as koa haole and feral goats. Future plans call for growth habit surveys as well as maintenance weeding.

—Richard Nakagawa

**Miconia Update**

Finally! We're getting good news about Maui's Miconia problems. In the early '90's, Miconia calvescens was discovered in the forests above Hana. This invasive alien tree had been brought into Maui as an ornamental. However, experience in Tahiti showed that Miconia is very aggressive, choking out 70% of an island's native forest, chasing out native insects and birds, and degrading the watershed. Since the Miconia invasion was still small (600 acres), the State DLNR, East Maui Irrigation Co., County of Maui, Hana Ranch, National Park Service, the Nature Conservancy, and the Haleakala Ranch Co. formed the East Maui Watershed Partnership to stop this threat as quickly as possible. Using funds from the State and County of Maui, they put in five miles of access tracks to the worst infestation at Hana. DLNR's Bob Hobdy led a five-worker eradication crew against populations found in the Hana/Keanae area. A public education campaign resulted in several smaller populations being found and eradicated.

At this time, all known Miconia infestations have been cleared at least once. The government continues to fund control efforts. Our job is two fold. Keep looking for Miconia. If you don't know what it looks like, contact the Maui DLNR and ask for their poster. Also, urge our government to continue supporting the eradication fight. A follow up time of 5-10 years will be necessary to clear out the seed bank, be reasonably certain of locating and eliminating outliers, and to establish the biocontrols. Only then will Miconia not come back to haunt us.

—Linda Nelson

**AFTERWORD FROM LINDA**

There have been changes and challenges for NHPS in the first half of 1997. New members serving on our Board include Ann Carter, Scott Meidell, Hank Oppenheimer, Forrest Starr and Kim Martz. Carol Gentz has stepped down, but Ray Keenan will serve as president, Fern Duvell as vice-president, Becky Lau as treasurer, with me as secretary. Lisa Raymond, Leslie Hiraga, Mike Perry, Fern DuVall, Lorna Harrison, and Pat Bily will remain on the board.

Our projects are doing well. Great strides have been made at cleaning up Kanaha Pond and we seem to be winning the battle with weeds in many of our exclosures. However, the Botanical Garden is caught up in the "Privatization issue" and has closed because its restrooms can no longer be cleaned by a private contractor. Whether it will reopen soon and what shape it will take seems to be in limbo. Bill Mull, Hank Oppenheimer and Gary Ray gave wonderful presentations at our public meetings during the last year. Our plant display at the Earth Maui Nature Summit at Kapalua (mahalo Anna Palomino) drew raves. We'll be there again this August. We also held a good propagation workshop at the Kahului Library. I'm very excited about our new focus of surveying the native species, weed and animal interactions around our projects. With the information gathered, we'll know better when a species should flower, how animals affect it, its fertility, and how we can help to reestablish it. Our records will help others succeed better too. On a personal note, mahalo to all of you who helped me and supported NHPS during my three years as president. They were good years for NHPS. With Ray as president and a Board full of energy and good ideas, the future looks exciting indeed.

—Linda Nelson
Native Hawaiian Plant Society
PO Box 5021
Kahului, Maui, Hawai'i 96733-5021

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