

1. AWARD NAME: INNOVATIVE PROGRAM AWARD

2. NOMINATOR:

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3. NOMINEE:

**CSI-Osceola: Creative Science Investigations at the Waterfront -
An Osceola County Invasive Aquatic Plant Teacher Training**

Amy Richard, UF Center for Aquatic and Invasive Plants
FANREP membership- No

Rob Horshberg, UF Center for Aquatic and Invasive Plants
FANREP membership- No

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FANREP membership- Yes

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4. PROGRAM DESCRIPTION:

Osceola County's first Invasive Aquatic Plant Teacher Training workshop was held July 28-31, 2008. The workshop was facilitated/organized by Eleanor Foerste with the UF/IFAS Osceola County Extension Service and Amy Richard with the UF/IFAS CAIP. Rob Horsburgh (CAIP) assisted. Two Osceola County teachers also attended and served as volunteer assistants (i.e., Wendy Norton and Amy Johnson-Henson). These individuals have been collaborating with CAIP staff to develop and test lessons in the classroom. Funding was provided by UF CAIP and Osceola County Extension.

The purpose of the workshop was to provide teachers with expanded content knowledge and laboratory/field experience in the area of aquatic (and also upland) plant biology and ecology. Participants learned new investigative and instructional methods

for exploring and teaching about Florida's diverse native, non-native and invasive plant communities. Participants also assisted in testing curricula and activities. Professional development points (CEUs) were provided upon completion of the 4 days of instruction and activities. The broader goal was to inspire these educators to take the information back to their students and teach with renewed enthusiasm and creativity.

A variety of interactive science curricula materials were prepared including: *4 power point lessons, 2 web-based activities, hands-on lab/field activities, videos & modules tailored for upper elementary, middle school and high school classes.* Materials can be made available to others who are interested.

July 28 (Monday) An Introduction to Aquatic Plants -- featured an aquatic plant exploration field trip, via airboat, on East Lake Toho in Kissimmee. UF/IFAS faculty Ken Langeland and FWC biologist Ed Harris were the guest speakers/field guides. Participants were taken to locations where they could see infestations of non-native invasive plants, as well as native plant communities. The afternoon session included a number of lectures and presentations about the problems caused by non-native invasive plants in Florida. One of the newly developed activities (i.e., the Hydrilla Game) was also tested during the afternoon, followed by a “brainstorming” review session, during which teachers provided their observations and ideas for improving the activity. Overall response to the activity was extremely positive; several teachers listed it as a highlight of the day’s activities.

July 29 (Tuesday) Why Do We Need to Manage Invasive Plants? -- This session included more aquatic plant exploration activities, but this time from the shoreline at St. Cloud’s Waterfront Park (AM session) and also at the Peghorn Nature Park (for the afternoon session). Plant identification along the lake shoreline was the morning activity, in an effort to help teachers learn how to utilize easily accessible aquatic plant samples for their own student activities.

The afternoon session included a brief hike within the park to see and identify a number of invasive upland plants. Biologist, Sarah Berger, presented an overview of her work on hydrilla on local ponds and Lake Tohopekaliga. Teachers then reviewed the recently developed audio/video presentation, *Why Manage Invasive Plants?*, and provided

feedback on potential activities that can be developed for this lesson. The session ended with teachers trying out a Plant ID activity, featuring a number of aquatic plant species.

July 30 (Wednesday) Curricula Development -- Teachers previewed *A Fish Tale*, a recently completed audio/visual presentation and discussed materials to accompany the lesson. Next, teachers viewed a sampling of Public Service Announcements about invasive plants before being challenged to create their own video PSA on the same topic. Once completed, the videos were quickly downloaded and edited by video/new media expert Phil Chiochio, with the assistance of the teachers. The final product was then viewed by all, followed by a discussion on the potential for conducting this same activity with students as a learning assessment tool and to help generate further interest in the topic within their community (aka “viral marketing”). The remaining afternoon session was spent testing out lessons and activities about invasive plants and animal species (i.e., adaptations from FWC’s Project WILD program). Lori Haynes, with the Florida Fish and Wildlife Conservation Commission facilitated this portion.

July 31 Curricula Development – This final session included the following activities: Invasive Species impacts to Ecosystems (teachers toured and practiced invasive species identification); Plant Diversity Study, with quadrant analysis to integrate math and science skills; additional Project WILD training (i.e., an aquatic ecosystem lesson/activity that combined plant and animal invasive species). The session was facilitated by Eleanor Foerste (UF/IFAS) and Lori Haynes (FWC).

RESULTS: Teachers who attended the workshop were given pre- and post-tests, as well as an evaluation form to complete at the end of the 4-day workshop. The average PRE-TEST score was 11 out of a possible 24 points. The average POST-TEST score was 21.6 out of 24 points -- a gain score of more than 10 points. Evaluations were positive overall. In every instance, the majority of participants felt the information learned throughout the workshop was “very useful.” As well, they provided positive ideas for improving next year’s workshop. An evaluation summary spreadsheet has been compiled and will be used for planning the 2009 summer workshop.