

FLEPPC Education Grant Enables Nature Coast Envirothon

by Jeanne Brown, Hernando Audubon Society

Background

The 2002 Nature Coast Regional Envirothon was held on Thursday, January 31, at the Chinsegut Nature Center near Brooksville. A \$400 Education and Awareness Grant from the Florida Exotic Pest Plant Council enabled the Hernando Audubon Society to produce the program. Over three hundred students and sponsors, representing nine public high schools, one charter school, and a Boy Scout Troop, participated. The winning team from the Academy of Environmental Sciences, a Citrus County Charter school, represented the region in the State competition at Silver Springs on April 16, 2002. The Nature Coast event was well covered by the St. Petersburg Times, the Citrus County Chronicle, and Fox TV Channel 13.

The Envirothon is a field oriented, natural resource education program for high school students. The program develops critical thinking, problem solving, communication, and team building skills through hands-on environmental learning sessions. The Envirothon focuses on five areas of study: aquatics; forestry; soils; wildlife; and a current environmental issue. This broad program encourages a holistic approach to natural resources education. It promotes sound environmental practices, advocates good stewardship of the land, and can be easily incorporated into a teaching curriculum. The theme of the 2002 Envirothon was **Introduced Species and Their Effect on Biodiversity**.

The Nature Coast Envirothon is a collaborative effort. Hernando Audubon provided oversight, volunteers, materials, and funding to conduct the competition. The following agencies administered different portions of the program: the Florida Fish and Wildlife Conservation



The winning team!

Commission (wildlife); the Southwest Florida Water Management District (water resources); the Florida Division of Forestry (forestry); the Environmental Section of the Hernando County Planning Department (aquatics); the U. S. Department of Agriculture, National Resources Conservation Service (soils). These agencies developed reference materials for each study area which were then printed, bound, and distributed to faculty advisors approximately two months before the competition.

Target Plants

Participants were provided with materials describing the appearance, ecology, and management of 10 FLEPPC Category I introduced invasive plants commonly found in west central Florida. These were: **Air potato** (*Dioscorea bulbifera*); **Brazilian pepper** (*Schinus terebinthifolius*); **Camphor tree** (*Cinnamomum camphora*); **Chinese Tallow tree** (*Sapium sebiferum*); **Cogongrass** (*Imperata cylindrica*); **Hydrilla** (*Hydrilla verticillata*); **Tropical Soda Apple** (*Solanum viarum*);

Water hyacinth (*Eichhornia crassipes*); **Water lettuce** (*Pistia stratiotes*); and **Wild Taro** (*Colocasia esculenta*).

During the Envirothon students rotated through stations corresponding to the five study areas. Teams were allowed thirty minutes to complete written exams testing their knowledge of invasive plant biology, ecology, and management as applied to each discipline. A hands-on component, using numbered samples of invasive species presented in sealed transparent plastic bags, tested participants' ability to identify the target species. The students were required to match the samples with a list of plant names.

Program Goals and Evaluation

There were three learning goals for the 2002 Nature Coast Envirothon. It was expected that students would be able to (1) discuss how Florida's ecology is effected by non-native invasive plants; (2) exhibit a knowledge of the management measures used to protect and restore native plant communities; and (3)

identify 10 common non-native invasive plants found in west central Florida.

The subject area tests were the primary tools used to measure goal accomplishment. The results were somewhat disappointing. On average, students scored only 50 percent on the written portion of the exam and only 48 percent on the hands on plant identification exercise. There were five possible choices on the multiple choice format test, so, even though scores were low, they were better than would be expected by chance. This leads us to believe that the students did not devote sufficient time to learning the material. This view is supported by the fact that 2nd and 3rd year teams typically scored higher than first year teams, demonstrating that experience and additional study prepares students for greater success in the *Envirothon*.

In addition each teacher/advisor was asked to complete an evaluation of the study materials and explain how they integrated *Envirothon* subjects into their

curriculum. The sponsor evaluation forms indicated that while teachers felt that the training material was useful and that the *Envirothon* increased student environmental awareness, they could not allocate additional time to environmental subjects.

This year some study materials were provided on CD. The *Envirothon* Committee had hoped to reduce costs and incorporate technology into the program. Several schools, however, could not load the CDs or recover files from them, requiring hard copies of the study guide to be delivered at a later date. If CDs are used next year, the Committee will perform quality control checks and investigate system compatibility before sending discs to a school.

A problem with the plant identification portion of the competition was that a recent freeze had defoliated local populations of Skunk Vine, Chinese Tallow, and Air Potato so that leafy samples of the plants could not be provided. As a result

the identification quiz consisted of only 7 species rather than the 10 we had originally intended to use. We suggest that specimens be procured before the onset of winter or that species not affected by the weather be included in the quiz.

Conclusion

The Hernando Audubon Society thanks the **Florida Exotic Pest Plant Council** for its support of the Nature Coast *Envirothon*. The 2002 theme of **Introduced Species and Their Effect on Biodiversity** was consistent with FLEPPC's goal of building public awareness of the dangers invasive plants pose to Florida's native ecosystems. This timely alignment of interests was the perfect opportunity for our organizations to develop a shared project. The result was a cost effective and successful youth education program.

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Be sure to attend the 5th Annual Meeting of the **SOUTHEAST EXOTIC PEST PLANT COUNCIL** May 15-17, 2003 • Campbell House Inn - Lexington, Kentucky

See old acquaintances, rub shoulders and compare notes with land managers and weed warriors from states outside of the SE region as we reach beyond borders to invite our neighbors to attend.

- Presentations on weeds known to the southeast as well as new ones poised to invade will be featured on May 15th and 16th. Topics include:
 - **research** on *Microstegium* and Chinese yam;
 - **predicting** invasion in forests;
 - **converting** exotic grass infestations to native warm season grasses;
 - **controlling** mile-a-minute weed, Japanese knotweed, and other problem species.
- Learn how the St. Louis Declaration is being implemented and received.
- See the US Forest Service's new guidebook on exotics.
- Hear great bluegrass/folk music and bid on silent auction items at the social on the evening of May 15th.
- Attend a workshop for private landowners on controlling exotic plants on the morning of May 17th.

CONTACT:

Augusta Mazyck for registration information at kmazyck@tnc.org or phone (859) 259-9655 ext. 52

REGISTRATION COST:

\$85 (includes reception on May 15 [cash bar] and lunch on May 16)

For room reservations at the Campbell House Inn (\$79 double):

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FIELD TRIPS highlighting the diversity of Kentucky's Inner Bluegrass Region are planned for May 17th. Learn more about the efforts of land managers to control the spread of invasive exotics at two local sites: McConnell Springs in Lexington and Floracliff State Nature Preserve in Fayette County. For a longer trip, view the ancient Kentucky River Palisades at Tom Dorman State Nature Preserve in Garrard County or visit Harrison County at a newly acquired bluegrass savanna woodland, a globally imperiled natural community that will require a tremendous amount of invasive species management.