Current status of efforts to control NATL's invasive plants

T. J. Walker, for the period ending 31 Dec 2010 For a prioritized list of 21 exotic plant species that threaten NATL's ecosystem and logs of control efforts, go to <u>http://natl.ifas.ufl.edu/invasiveCtrl.htm</u>.

The three species of greatest concern

Cogongrass (Imperata cylindrica)

History. Cogongrass was not detected in the original surveys of NATL's flora; however, by 2003, Dan Ward had listed it in his <u>Vascular Plant Inventory of NATL</u> as occurring in gridblock G5 in NATL's old fields. By 2005, it was threatening to take over NATL's Old Field plots (invasives' <u>Photo Gallery</u>) and intensive control efforts were begun. Until 2009, NATL personnel used only 2 or 3% glyphosate for cogongrass although imazapyr was used by others on extensive, dense stands in NATL. The glyphosate treatments did not eliminate cogongrass at most infested sites but it did eventually kill most of it. In 2009, NATL personnel began applying 1% imazapyr to the small patches of cogongrass remaining at formerly heavily infested sites. By the end of the year, live cogongrass was found at only 19 of the 41 infested sites detected since 2006.

Current status and outlook. Eight sites were found infested in 2010 and only 2 had live plants as late as August. However, fall inspections were omitted in favor of trying to sustain the program to eradicate coral ardisia. By the fall of 2011, the ease or difficulty of permanently eliminating cogongrass at all known infested sites in NATL should be evident.

Skunkvine (Paederia foetida)

History. This smelly vine with kudzu like growth tendencies was first noticed in 2003, in the south edge of gridblock F9, by Dan Ward, who advised it should be eradicated. In 2004, contiguous, heavily infested sites were found in gridblocks F9 and F10. These have been monitored and treated when needed ever since. In 2009, a new heavily infested site was discovered in gridblock G10, about 50m east of the south-most of the original sites. During fall 2009 only four plants were found (and treated) on the three sites.

Current status and outlook. Two living plants were found in NATL during 2010. Both were at the F9 site. All sites will be periodically inspected for skunk vine during the 2011 growing season.

Coral ardisia (Ardisia crenata)

History. Coral ardisia was well established in the hammock ecosystems of NATL-west in 1994 when NATL was founded, and in NATL-east in 2005 when its flora was first surveyed. Early efforts to control coral ardisia did not prevent its spread and increase. In 2009 control procedures were intensified and a program to eradicate the species from NATL was begun.

Current status. This species still occurs in at least 22 gridblocks in NATL-w and in six in NATL-e, but the numbers of mature ardisia in midwinter in NATL have been reduced more than 94% since 2009 (see Table 1 in <u>Eradication of Coral Ardisia</u>).

The next five species of greatest concern

[Text for these species is in progress]

Guineagrass & Johnsongrass (*Panicum maximum* & Sorghum halepense) See <u>spreadsheet</u> documenting control efforts from 2008 to date.

Air potato (*Dioscorea bulbifera*) See <u>spreadsheets</u> documenting control efforts from 2005 to date.

Arrowhead vine (*Syngonium podophyllum*) See <u>spreadsheets</u> documenting control efforts from 2006 to date.

Japanese climbing fern (*Lygodium japonicum*) See <u>spreadsheets</u> documenting control efforts from 2005 to date.