Fall 2014 Meeting of the Natural Area Advisory Committee

04 September 2014, NATL Academic Pavilion, 12:00-1:00pm Recorded by Morgan Conn

In attendance:

Ethan Carter (NATL Graduate TA) Morgan Conn (NATL Graduate TA) Christopher Crockett (Entomology and Nematology Student Organization) Jennifer Gillett-Kaufman (NATL Chair, Entomology and Nematology) Stephen Holland (Tourism, Recreation and Sport Managements) Alex LoCastro (NATL Undergraduate TA) Elise Morrison (Wetlands Club) Ken Prestwich (Friend of NATL) Lary Reeves (NATL Vice Chair) Beverly Sensbach (FLMNH) Emily Sessa (Biology) Matthew Smith (Plant Pathology) Thomas Walker (Friend of NATL, Entomology and Nematology) Emma Weeks (New NATL Chair, Entomology and Nematology)

12:10 PM

Introduction (Jennifer)

Jennifer talked about the ongoing projects in NATL and what to expect for the next year. She also introduced Emma Weeks as the new official NATL chair, who will take over for Jennifer following the meeting.

1. Next NAAC Committee Chair- Dr. Emma Weeks

Emma gave a short description of some potential long-term projects in NATL, including efforts to make all trails ADA (Americans with Disabilities Act) compliant.

2. Budget FY 2013 update- fiscal report on adherence to and/or deviation from 2014-2015 spending plan (Appendix 1) (Lary)

The fiscal plan has been on track for 2014-2015 spending. Jennifer added that NATL had recently run out of map card fliers that describe what can be found in NATL and how to access it. As information on how to sign onto the newly-installed NATL WiFi was added to these map cards, some of the printing costs were allocated to the Tech Fee grant that paid for the WiFi installation. This allowed for a bulk order of flyers yet allowed the NATL budget to stay on track.

2. Preliminary draft of 2014-2015 spending plan for approval at Fall meeting (Appendix 2) (Lary)

Lary explained that there are to be no expected changes to the budget for 2014-2015. The group voted to approve the 2014-2015 budget.

3. Updates on possible capital improvements and funding sources (Appendix 3) (Emma)

Emma touched on some of the long-range NATL wish list items, which can be found in Appendix 3. The WiFi and electricity infrastructure was installed thanks to the Tech Fee grant with the wildlife-viewing camera installation (also covered by the grant) still in progress. Emma asked all NAAC members to contact the NATL Operations Committee with any suggestions for potential funding for the projects remaining on the list.

One of the most exciting opportunities is the ADA improvement proposed for NATL. This would consist of a gently sloping boardwalk from the Florida Museum of Natural History entrance to NATL, allowing visitors in wheelchairs to comfortably access the nature trails. Jennifer and Emma have been discussing this project with ADA representatives and have received some quotes on the project (in the neighborhood of \$30,000). It is likely that ADA will pay for at least half of the project, if NATL can come up with the other half. Emma and Morgan are currently researching grant opportunities. Jennifer also mentioned a possible Eagle Scout project that was brought to NATL's attention that could help with fundraising or labor for the project. Please let Emma know if you have any ideas of financial assistance for the boardwalk.

As discussed earlier, item B ("Instituting remote access (and security) and real-time online interaction with NATL") in this list of improvements is largely accomplished. Emma and Jennifer suggested that the creation of interactive tours could also fall under the ADA grant material.

For item C in Appendix 3, more funding is needed. Jennifer asked for any new priorities to be added to the list. Any NAAC members with ideas for new priorities should direct them to Emma (eniweeks@ufl.edu).

4. New name for NATL public areas (Tom)

Tom described a newly evident concern that the NATL Public Area is not adequately named. He explained that most of the public likely does not know what "NATL" means and some members of the public might be reluctant to venture into a "Teaching Laboratory." A shorter name would also serve the purpose of descriptively labeling NATL's regions on the campus online and printed map, an issue that has been of some difficulty in the past.

Suggestions for a short, descriptive, welcoming new name for the NATL Public Area were invited in the Agenda and discussed during the meeting:

Tom listed the names that had come to his attention prior to the meeting. These names are: Nature Center, Eco-center, Eco-encounter, and Public Natural Area.

Alex LoCastro suggested Native Ecosystem Trails (NET) as a new name, explaining that it describes the nature trails that make up the majority of the NATL public area. He also pointed out that the Entomology students are possibly the most frequent users of NATL and that the acronym NET is a nod to their involvement.

Matt Smith then suggested that the acronym NATL remain in any new name, since it would be difficult to research the Natural Area online without that title.

Jennifer suggested that the fact that NATL contains interpretive trails is an important distinction, implying that without recognizing this NATL could be mistaken for "public woods" instead of a center for education.

Beverly Sensbach suggested the name NATL Arboretum, as that is a term many people associate with collections of trees and plants in an educational setting.

Tom suggested these names be made into a list and sent out to the NAAC for a vote. The Operations Committee will determine the best course of action over the next few weeks as well as revisiting the maps (printed and online) to determine how a new name would fit in each one. Please be ready for an email on the subject soon!

5. Introduction to new undergraduate TA (Alex)

Alex LoCastro is a third-year Entomology student who started volunteering in NATL in April and is now taking over as the undergraduate teaching assistant following Ethan's transition to graduate teaching assistant. He has been largely involved in trail maintenance: mowing the trails, trimming back branches, and maintaining photosigns.

6. Wetlands Club Update (Elise Morrison)

Elise addressed the problem of multiple boards needing replacing on the SEEP boardwalk. The Wetlands Club scheduled an event for the afternoon of September 11th to replace the unfit boards, which were evaluated and flagged by Ethan. Mark Clark volunteered to cut the boards for the event. Elise mentioned a potential overhaul of the board railings on the boardwalk (the wood that lies along the border of the boardwalk, on top of the boards you walk on) in the future. Elise also reported that the Wetlands Club is looking to make a member of their club an officer to the SEEP, a position that would benefit both the club and NATL.

7. Minigrant update and 2015 planning (Morgan)

Morgan described the state of the NATL minigrants program. Last meeting, updates for two projects were given, but in the end only one of them went to completion. The PI for this unfinished project, Joe Giesel, an undergraduate student in the Forestry Department, has instead decided to volunteer in NATL. He will be supervised by Dr. Tom Walker and work on existing maps of the pines of NATL's Upland Pine ecosystem. These maps show location and DBH (diameter at breast height), data that was last updated in 2008.

The second project approved, which did proceed to completion, resulted in a series of beautiful signs throughout the Natural Area. The PI is Elena Ortiz-Acevedo, a Ph.D. Candidate in the Department of Entomology and Nematology and the McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History. Her faculty sponsor is Dr. Andrei Sourakov, Collections Coordinator for the McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History. Elena's project is called Host plants of butterflies and moths in NATL: Enhancing visitors' experience through signs about Lepidoptera biology. Her signs can also be viewed <u>online</u> along with all proposals and final reports.

The next cycle of NATL minigrants is coming up. The NAAC needs to vote on a due date for 2014 minigrant applications. Suggested date: November 3rd.

Please look for the updated Minigrant announcement along with these Minutes.

8. Facebook and Twitter updates (Morgan)

NATL's Facebook page is updated frequently by the NATL TAs, and Morgan is in charge of posting that content to the Twitter account. NATL's Facebook page has 662 Likes and the Twitter account has 577 Followers. Since the last NAAC meeting in April, we have gained 187 Facebook Likes and 244 Followers on Twitter! If you have a social media account, please feel free to Like NATL on Facebook, at facebook.com/UF.NATL and Follow us on Twitter at @UFNATL.

9. NATL Use Report (Ethan) (Appendices 4 and 5)

Ethan described the people counter results for 2014. According to the results there were over 11,000 visitors through the three entrances to date in 2014 (TrailMaster counts/2 because users are counted twice, as they enter and exit).

Ethan described the two volunteer events since the Spring meeting. In June, an Entomology graduate student helped to clear vines for two hours. In July, fifteen Summer Plunge volunteers helped to pick up trash, trim trails and clear signs for 2.5 hours. Alex LoCastro completed 86 volunteer hours prior to becoming the undergraduate TA. Tom Walker completed 282 hours of volunteer service. In total there were 473 hours of volunteer service in NATL in 2014.

Emily Sessa (Biology) suggested that the Undergraduate Botany Club could volunteer in NATL. One possible service they could offer would be to routinely come and check the signs.

10. Invasive plant update (Appendix 6)

Ethan gave an in depth account of the invasive plant removal in NATL. At the last NAAC meeting (Spring 2014), he included a table that showed our progress on controlling several invasive plant species from 2010-2014. Depending on the growth style of the specific plant, we listed the number of major patches, sites, mature trees, stems, or multistem clumps that were treated in each year (as well as the worst document-supported year).

At this meeting, the table was updated to include the progress in management of four more species. He said that the plan is to continue updating this table, filling it with historical data from an existing spreadsheet that has been used for recording control efforts. He described the table and mentioned that the status for mimosa should be ND (=not determined). He explained that although there were many, he had not yet evaluated the number. He also informed the group that the parentheses around the numbers for 2014 were to indicate the counts were not final until the end of 2014. Ethan told the NAAC about the new invasive species sign "NATL's Most Wanted" and the accompanying brochure and website. He explained that it provides information about NATL's four worst invasive plants. The NAAC are excited to see the new sign when it is to be displayed and also liked the idea of t-shirts proposed by Jennifer (potentially to be sold at FMNH).

11. Nature trail update, boardwalk concerns (Ethan)

Ethan spoke about how in mid-July the boardwalk was underwater due to heavy rain and runoff from neighboring parking lots. After being submerged it was noted that several boards were deteriorating and had become mushy. By the NAAC meeting, 8 regular shaped and 5 angled boards were in need of replacing. The Wetlands Club were made aware of the boards prior to the meeting. Their president, Elise Morrison, said that the club was planning on replacing boards Thursday September 11th. Also in July, fish were documented in SEEP. They were noticed about the same time that the boardwalk flooded. Since then, with the help of Larry Page and Robert Robbins of the Ichthyology Dept. (FMNH) we have identified two species of fish in NATL West (SEEP) and three species of fish in the large wetland in NATL East. The fish that were identified in SEEP are Golden Shiners (*Notemigonus crysoleucas*) and Fathead Minnows (*Pimephales promelas*). We have identified Eastern Mosquitofish (*Gambusia holbrooki*), Sailfin Molly (*Poecilia latipinna*) and Least Killifish (*Heterandria Formosa*) in the NATL East wetland.

12. Restoration of Upland Pine (Tom)

Burns

Tom informed NAAC that there were two burns in the last year in December (Blocks C and D) and one in April (Blocks A and B). Tom explained that they were completed by the new burn master Tom Workman of Workman Forestry and were very successful with good coverage particularly in Blocks A, B and C. Tom also explained that a new method had been developed for determining burn coverage.

Cabbage Palm proposal

Tom discussed the proposal for removal of cabbage palms in NATL's Upland Pine area. He explained that cabbage palms were not characteristic of NATL's Upland Pine area and it is desired to remove the majority of the seedlings and the two large trees. It was suggested that we contact forestry to get their opinion before moving forward with removal efforts, as the representative from SFRC (Jason Smith) was not present at the meeting.

12. NAAC Updated Roster (Appendix 7)

Jennifer mentioned that there were several committee members absent from the meeting that had not notified her. The importance of attendance of members from all areas for the smooth running of NATL was discussed. It was decided that starting from the next meeting people that missed two meetings in a year without providing notification or sending a surrogate would be asked to leave the NAAC and a replacement would be found. With just two meetings per year it seems reasonable to expect people to attend or at least notify in advance of their absence. Matthew Smith raised a concern that this may put people off being involved, but most people agreed that if a person is not coming to meetings then they are not really involved in NATL in the necessary sense. Emma asked that any NAAC member not able to attend the next meeting makes this clear to her prior to the event and sends a surrogate if possible to avoid this action. NAAC voted in agreement.

13. Next NAAC meeting date and time

The date and time of **Noon, Thursday April 16, 2015** was suggested and the NAAC voted to approve. Please put the date in your diaries and let Emma know now if you already know that you wont be able to make it.

12:45 PM Meeting Adjourns

14. Group photo (Appendix 8)

Appendix 1: Fiscal report for 2013-2014

NATL Fiscal Plan for FY 2013-14		[reformatted	here]	Final F	iscal Rep	port for F	FY 2013-14
Approved by NAAC and LVL, fall 2013							
Figures in red are deviations from original plan							
Funds available for 2013-14, excluding stipene	ds for Grac	luate TAs*.					
Brought forward from 2012-13		-\$30			-\$30		
Projected income for 2012-13							
Provost	\$ 6,000			\$ 6,000			
NATL endowment	\$ 4,625			\$ 4,727			
Sum	1	\$ 10,625			\$ 10,727		
Grand Total	.I		\$ 10,595			\$ 10,697	
Spending plan for 2013-14							
Personnel							
Undergraduate TA	\$ 4,322			\$ 5,122			Experienced undergrads (Ethan Carter, Sam Hart)
							Increased to grant Ethan Carter a raise following his gradua
Control of invasives	\$ 1,320			\$ 1,320			Invasive specialist (Ethan Carter)
Sum	1	\$ 5,642			\$ 6,442		
Other spending							
Miscellaneous expenses	\$ 2,500			\$ 1.850	1		
Upland pine restoration	\$ 1,000			\$ 1,000	1		
2000 NT fliers	\$ 1,000			\$ 1,000			
2 minigrants @\$500 each	\$ 1,000			\$ 500			Only one of two mingrant projects completed
Sum		\$ 4,900			\$ 3,748		
Grand Total	1		\$ 10,542			\$ 10,190	
To be carried forward			\$ 53			\$ 507	
Online donations to NATL (implemented Marc	ch 2012)		\$ 921				
* The Provost and the CALS Dean will each p	nov the otir	and for					

Appendix 2: Fiscal plan for 2014-2015

Initial NATL Fiscal Plan for FY 2014-15 Final version to be approved at Fall meeting	5		Comments
Funds available for 2014-15, excluding stipends for C Brought forward from 2013-14	Graduate TAs*. 507		
Projected income for 2014-15 Provost NATL endowment Sum	6,000 4,625 10,625		Received Assumes no change
Grand Total		\$11,132	
Spending plan for 2014-15 Personnel (OPS) Undergraduate TAs Control of invasives Sum Other Expenses Miscellaneous expenses Upland pine restoration 2000 NT fliers 2 minigrants @\$500 each	4,322 1,320 5,642 2,500 1,000 400 1,000 4,900		Experienced help, 8 hrs/week (does most of routine maintenance of nature trails) Invasive specialist, 2 hrs/week Continues efforts to restore 13 acres of longleaf pine ecosystem Based on quote Program attracts student proposals to fulfill NATL needs
Grand Total To be carried forward	4,900	\$10,542 \$590	
NATL improvement fund (from online donations)			
Online donations to NATL (implemented March 2012)	\$ 921		
* The Provost and the CALS Dean will each a NATL Graduate Teaching Assistant	pay the stipend for		

Appendix 3: Capital Improvements Update Fall 2014 Report

The following items were discussed and compiled by the NATL Operations Committee and modified based on a week's discussion by NAAC members. Some items have an associated web link that is an example of the item described.

Long Range NATL Wish List: 2011-2021 Vision Plan

We recognize that NATL already has tremendous value to the local UF community. This Vision Plan seeks to strengthen and enhance these indigenous values of NATL and, in addition, provide mechanisms for bringing the educational values of NATL to an unlimited online environmental community of users. We present the plan in the form of a two-part outline of infrastructure and other developments, focusing on both in-person and online users of NATL.

This list is not static; additional items may be added to the list. Items will be removed from the list if more than half of NAAC members feel that the item would not enhance the use of NATL. Funding for items could come from donations to the UFF on behalf of NATL or by writing specific items into future grant proposals.

A. Enhancing in-person access

- 1. Bike parking areas at each primary NATL entrance. Completed 2012.
- 2. Extend 110v AC to the pavilion and the NATL shed (two weather proof duplex outlets at the pavilion and hook up the wiring that came with the prefab storage shed). Completed 2013.
- 3. Extend potable water service to the pavilion area to provide access to water for drinking, bottle filling, hand washing, and class-related low-volume uses. This could include a sink and associated drainboard if restraints on cost, design, and context are met.
- 4. Two or more locking cupboards for class use (to reduce the risk associated with students leaving valuables unattended in the pavilion during class time). (Design and placement not yet considered.)
- 5. Natural Area Park water fountain. (Design and placement not yet considered.)
- Dog waste sanitation stations: Signs about dogs on leashes and picking up of animal waste at three main entrances with bags for waste disposal. (Dogipot 1003-L Pet Waste Station Kit) <u>LINK</u>
- 7. Additional seating areas at NATL Park and along NATL trails. (If the UF Foundation approves the plan, donors might pay enough for benches with commemorative inscriptions to fund other items on this wish list). <u>LINK</u>.
- Binoculars on a permanent stand that are attached to or near the boardwalk for wildlife viewing. (If the UF Foundation approves the idea, donors might pay enough for binoculars with commemorative inscriptions to fund other items on this wish list.) (Barska® 40x100 mm Blueline Jumbo Waterproof Binoculars and Stand). LINK
- 9. Add a classroom and/or lab building to facilitate NATL use. To avoid using land in the NATL-west Conservation Area, the building might best be situated on an out-parcel

south of the pavilion. (A representative of the UF Foundation believes NATL might attract a donation of \$1 million or more. Having a plan for using such a donation might help the donor decide to make it. An alternative plan for using such a donation would be to set up an endowment for the benefit of NATL.)

10. Improve access to NATL nature trails from Cultural Plaza for those with disabilities. New boardwalk/ramp from Cultural Plaza entrance, curb dropped and all trails trimmed to 80 inches in height to be compliant with the Americans with Disabilities Act (ADA). (Trimming has been initiated and we are awaiting a quote from a contractor for the boardwalk/ramp.)

B. Instituting remote access (and security) and real-time online interaction with NATL

- 1. Update the look of the NATL website while improving its usefulness as a distance natural laboratory. This change will maintain the historical information on the website now; it will not be lost in the change-just repackaged. Completed 2012. Website additions could include a NATL "virtual collection"/species inventory with photos and audio recordings of sounds such as resident bird, frog and insect calls for groups interested in taking virtual field trips. Completed 2013.
- 2. Complete and enhance Wi-Fi coverage in NATL. With this, we could lead live tours of NATL using camera abilities built into iPads and other electronic devices. This would allow teachers and students the ability to direct the tour by asking their NATL tour guide to zoom in on subjects of interest. This would be a wonderful opportunity for our students in the ecotourism track to lead tours for students around the world. Completed 2014.
- 3. Install webcams in NATL at carefully selected venues. These cameras could be used by researchers studying animal behavior in NATL as well as giving access to NATL to teachers in their classrooms. Example of broadcasts: LINK-Completed 2014.
- 4. In partnership with FLMNH, develop a program using an interactive whiteboard (e.g., SMART board) to use digital material from NATL to involve K-12 students in learning about ecological concepts and problems. Including grade-level specific, standards-based curriculum materials (field investigation activities) that can be implemented as part of school field trips or summer enrichment programs. Make available as downloadable files for use by home schooled children, scout groups and others.
- 5. Prepare pre-recorded guided tours that will be filmed and then available online for those that cannot visit NATL in person. Offer live guided tours for schools and other groups of people that would not be able to visit NATL in person due to distance from the site or disability.

C. Enhancing the research and teaching usage of NATL

\$10,000 a year instituting a seed money grant program (\$500-\$5,000 grants) to foster data collection, proposal submissions and distance curriculum development utilizing NATL. Distance curriculum developed using seed grant funding would be made freely available on the NATL website. \$1,000 per year earmarked for a grant that would support one or more citizen science projects in NATL. Citizen science projects could fund some NATL specific ideas as well as support the partnership of NATL with national initiatives.

Appendix 4: People Counter Summary

Three TrailMaster units are installed at NATL's Academic, Cultural Plaza and Natural Area Park Entrances. These units measure NATL usage by counting the number of people passing through each of the three entrances. The Cultural Plaza Entrance has had a TrailMaster installed since July 2010, however initial technical difficulties yielded unreliable data in the first few months. Two more units were installed at the Academic Entrance (June 2011) and NAP Entrance (April 2012). **Figure 1 and Table 1** summarize information collected by the TrailMaster units since 2010. NATL visitors are counted twice (as they enter and exit); so all counts are divided by two.

Figure 1. Summary of TrailMaster counts for 2011-2014 at the Cultural Plaza, Academic and NAP entrances (all numbers are TrailMaster counts/2 because users are counted twice, as they enter and exit).

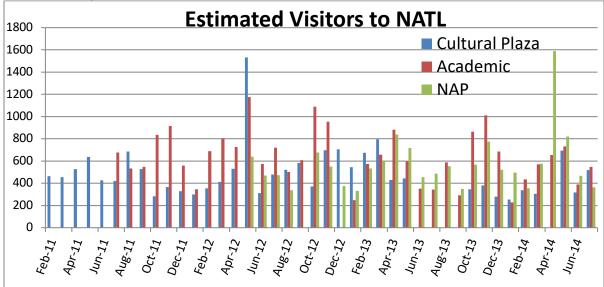


Table 1. Summary of NATL usage estimates via TrailMaster counts (all numbers are TrailMaster counts/2 because users are counted twice, as they enter and exit). *Technical difficulties, possibly due to ants and/or laser sensitivity setting, caused data to be unreliable from May-August

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
CPE	2010												324	324
	2011	465	457	528	636	428	422	686	527	283	366	330	300	5428
	2012	356	412	529	1532	313	478	521	582	373	697	706	543	7042
	2013	673	796	428	443	*	*	*	*	346	380	279	253	3598
	2014	338.5	305.5	*	694	318	518.5	903						3077.5
AE	2011						676	533	549	835	916	558	346	4413
	2012	689	804	725	1175	573	720	502	609	1090	955		249	8091
	2013	572	656	883	595	352	344	587	291.5	864	1010	686	229	7069.5
	2014	434.5	564.5	653	732	387.5	547.5	681.5						4000.5
NAP	2012				639	471	472	321	384	677	549	375	331	4219
	2013	534	605	838	717.5	455.5	488	553	347	568.5	776	521.5	495.5	6899.5
	2014	353	567.5	1589.5	820.5	467	362.5	448.5						4608.5
												Grand	Total	58770.5

Appendix 5: Volunteer Summary

Since the last NAAC meeting in April 2014, NATL has hosted a number of volunteer events. Volunteers at these events worked on trash pick-up, cleaning signs, trimming tails and fences, and Coral Ardisia removal. These events brought 16 volunteers who worked a total of 39.5 hours. In addition, Tom Walker, Sam Hart, and Alex LoCastro collectively donated 433.5 hours of their time to NATL.

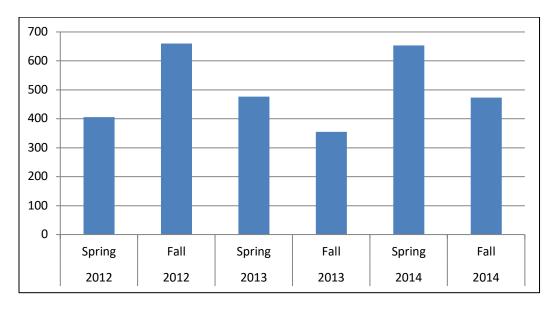
Volunteer Events

June	July
6/28 Sedonia	7/19 Summer Plunge volunteers
Steininger helps	help pick up trash, trim trails,
clear vines from	and clean signs (15 people x 2.5
corral fence 2 hrs	hrs) 37.5 hrs

Volunteer Hours April 2014 – September 2014

Miscellaneous Volunteer Projects	39.5 hours
Tom Walker	282 hours
Sam Hart	65.5 hours
Alex LoCastro	86 hours
Total	473 hours

Volunteer Hours Reported at NAAC Meetings- Spring 2012-Date



Appendix 6: Invasive Plant Update

Control of invasive exotic plants in NATL

Ethan Carter and Tom Walker

In 2012, the two of us prepared a summary of efforts to control NATL's invasive plants from 1994 to May 2012. <u>That summary</u> is currently on the web. Afterwards we reconsidered which species were the greatest threat to NATL and assigned the species of greatest concern to places in a <u>new classification</u> of NATL's invasive plants. Now we are working on a framework to report annually the status of NATL's invasive species of greatest concern in a straightforward, revealing manner. Below are examples of how this framework may operate. These are taken from a <u>spreadsheet</u> that has notes to explain the details.

Status of invasive	exotic plants in NATL	.: 2010 to d	late						
by Ethan Carter and T	om Walker (under constru	iction)							
	Category	Worst Do	cumented	2010	2011	2012	2013	2014	2015
Most threatening									
Ardisia crenata	mature plants	2009:	>1200	316	81	5	7	(0)	
		2009:	>8400	ND	ND	ND	1366	(46)	
Imperata cylindrica	patches treated	2005:	>>20	?	17	10	7	(5)	
(cogangrass)									
Paederia foetida	major patches treated	2005-07; 2	009; 2013: 1	0	0	0	1	(0)	
(skunk vine)	patch remnants treated	2014:	3	1	1	0	0	(3)	
Albizia julibrissin	counted, treated trees	2011:	300	ND	300	78	13	(?)	
(mimosa)									
Macfad. unguis-cati	new sites found	2006:	1	0	1	0	1	(0)	
(cat's claw)	sites treated	2011:	2	1	2	2	2	(1)	
Minor threats									
Cinnam. camphora	mature trees	2011:	7	ND	7	3	0	(2)	
(camphortree)	stems	2012:	31	ND	11	31	3	(0)	
Leucaena leucocephala	mature trees			0	0	0	0	(0)	
(white leadtree)	stems	2012:	43	ND	8	43	18	(3)	
Sapium sebiferum	mature trees	2012:	7	ND	1	7	0	(1)	
(Chinese tallowtree)	stems	2011:	15	ND	15	4	2	0	
Vitex negundo	multistem clump	2011:	23	ND	23	2	0	(0)	<u> </u>
(negundo chastetree)						_			
Ligustrum lucidum	mature trees	2012:	10	ND	ND	10	2	(0)	

	(glossy privet)	stems	2012:	5	ND	ND	5	1	(0)	
E	radicated (more than three	ee years without a sightin	ıg							
	Pennisetum purpureu									
	(elephant grass)		1995:	2	0	0	0	0	(0)	

Status of Control of Invasive Plants in NATL

NATL has approximately142 plants that are not native to Florida, but only about 25 of these are currently under strict surveillance because of their perceived potential to significantly alter NATL ecosystems. An invasive plant will naturalize on its own, and take over native ecosystems by choking out and outcompeting natives. FLEPPC (Florida Exotic Pest Plant Council) maintains a list of all invasive plants in Florida, ranking them as either category 1 or 2. Category 1 plants are the most lethal and displace native plants disrupting ecosystems, while category 2 plants can spread but have not yet necessarily altered ecosystems severely enough to be categorized as 1.

At NATL, we use both mechanical and chemical techniques to control invasive plants. A few common invasives that you may recognize are mimosa, Chinese tallow and camphor tree. The only invasive eradicated from NATL has been elephant grass, however all of our documented invasives have been severely diminished and are controlled. We define "eradicated" as being absent with no sightings in NATL for a minimum of 3 years. There are currently 7 plants that have not been sighted in several months and no known existing infestations awaiting treatment. The common names of these species are air potato, pindo palm, silverthorn, negundo chastetree, chinaberry, wandering Jew, and Japanese loquat. It is expected that they are no longer found in NATL, but have not yet reached the 3 year mark to be classified as eradicated. Four of the remaining invasive species that cause the most concern are cogon grass, skunk vine, coral ardisia, and Japanese climbing fern, which are all category 1.

Top category 1 plants in NATL include cogon grass (*Imperata cylindrica*), coral ardisia (*Ardisia crenata*), cat's claw (*Macfadyena unguis-cati*), air potato (*Dioscorea bulbifera*), skunk vine (*Paederia foetida*), and Japanese climbing fern (*Lygodium japonicum*). Category 2 plants include but are not limited to paper mulberry (*Broussonetia papyrifera*), silverthorn (*Elaeagnus pungens*), and Chinaberry tree (*Melia azedarach*). More information about invasive plant management in NATL can be found on the NATL website (http://natl.ifas.ufl.edu/ecosystems/invasive control.php).

To help raise awareness in NATL, we have developed a new 3x2 sign called "NATL's Most Wanted" which will be printed at Color Reflections. This sign has pictures as well as informational text regarding coral ardisia, Japanese climbing fern, skunk vine, and cat's claw.

Appendix 7: Updated NATL Roster

NAAC roste	er					
The current version	on of the NAAC	Croster is at http://natl.ifas.ufl.edu/docs/NAACroster.xls				
Last name	First name	Representing	Email	Campus address	Phone (352-)	Notes
Carter	Ethan	NATL Graduate Teaching Assistant	ethancarter@ufl.edu			non-voting
Clark	Mark	Soil and Water Science	clarkmw@ufl.edu	PO Box 110510	392-1804 ext. 319	
Conn	Morgan	NATL Graduate Teaching Assistant	maconn00@ufl.edu		727-808-6547	non-voting
Crockett	Chris	ENSO (Entomology & Nematology Student Organization)	crockettcd@ufl.edu			
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Appendix 8: Group Photo

