

Spring 2009 meeting of the Natural Area Advisory Committee

23 April 2009, NATL academic pavilion, 4:00 - 5:15 pm

Recorded by Bret Pasch

In attendance:

Doug Levey (NATL Chair, Dept. Biology)
Tom Walker (NATL administrative assistant, Dept. of Entomology)
Bret Pasch (graduate NATL TA)
Marissa Streifel (undergraduate NATL TA)
Natalie Hooten (upcoming graduate NATL TA for summer 2009)
Mark Clark (Soil & Water Science)
Beverly Sensbach (Florida Museum of Natural History)
Alex Cheesman (Wetlands Club)
Erick Smith (Friend of NATL)
Jared Daniels (McGuire Center)
Kaoru Kitajima (Biology)
Jack Putz (Biology)
Tim Young (Chair, Lakes, Vegetation and Landscaping Committee)
Erin Vrzal (Ent. & Nem. Student Organization)
Alan Long (Forest Resources & Conservation)
Susan Jacobson (Wildlife Ecology & Conservation)
Stephen Holland (Dept of Tourism, Recreation & Sport Management)
Don Graetz (Soil & Water Science)
Willie Harris (Soil & Water Science)

4:00 pm

1. Introductions

New Advisory Committee members: Leda Kobziar (Forest Resources and Conservation), Alex Cheesman (Wetlands Club), Erin Vrzal (Ent. & Nem. Student Organization)
Current graduate student TA: Bret Pasch; Undergraduate TA: Marissa Streifel

2. Announcements

Graduate student TA for summer 2009: Natalie Hooten (SNRE), NAAC vice-chair: Jack Putz

3. Nature trails

- a. Ribbon-cutting ceremony for SEEP boardwalk last semester (Doug & Tom passed around newspaper clippings)
- b. Updated Basic & Advanced trail guides (Bret passed around copies)
- c. New trail guide to SEEP plants (Bret passed around copies)
- d. NATL flier now in museums (Powell Hall & Harn), Reitz Union, and the Hilton Hotel on 34th St. (Doug, Tom, & Bret acknowledged Jared Daniels for providing a cheap online source for the NATL flier; Bret passed around copies)
- e. Powerpoint slide of NATL trails now projected on screen in FLMNH
- f. NATL-east bridges and walkway over central marsh completed (still “low key”)

4. Upland pine restoration (Tom Walker & Alan Long)

Tom gave a brief history of Upland Pine restoration & handed out a packet that compiles UP management (see <http://natl.ifas.ufl.edu/UPmanage.htm> for details). Tom acknowledged that students/researchers have not taken full advantage of this restoration in action. Alan Long said the spring burn will happen within the month. He said that 1) getting the burn permit is an interesting process and 2) contact him if interested in assisting on the burn. Alan also mentioned that he sees the best biodiversity after spring burns (early growing season) and is looking forward to this month's burn.

5. Mapping of NATL pines

Tom asked people to look in the Upland Pine management packet for sample maps. Information about all NATL pines can be found on the web.

6. Mini-grant updates. Both are progressing. (Appendix A. Summaries)

7. NATL TA report (Bret Pasch)

- a. Announced NATL mini-grant program to listserv that Erica van Etten compiled last semester. Also included link to website highlighting recent developments/ infrastructure/ availability for class use.
- b. General maintenance to trails, kiosks, & trail guides (Feb & April versions)
- c. Brush removal in South restricted area Upland Pine in preparation for spring burn
- d. Ardisia removal along Hammock Nature Trail and Division Trail
- e. New NATL fliers now stocked & have contact at Powell Hall (Brittany Snipes bsnipes@flmnh.ufl.edu) to notify us when running low. Also rotating powerpoint slide in Powell Hall.
- f. Updated NATL powerpoint to reflect new additions (Pines mapped, new walkway in NATL East): presented to FLMNH faculty & Wetlands Club
- g. Updated TA Manual
- h. Volunteer events (Earth Day & Alpha Phi Omega)
- i. Compiled plant list of NATL (now online)
- j. NATL Sound/Noise map layer (in progress)
- k. Small mammal inventory led by Marissa Streifel (**Appendix B**).
- l. New SEEP trail guide & boardwalk markers

Susan Jacobson inquired about the use of public counters to gauge public use of nature trails. Tom & Doug mentioned that they have looked into it but is currently cost prohibitive. Jaret Daniels says that Taylor Stein is using counters on the Florida trail with success. Mentions that he will communicate with FLMNH docents to incorporate nature trails as part of their outreach.

8. Soil pit proposal (Don Graetz and Willie Harris)

Tom briefly read the NAAC 1999 summary of the soil pit proposal. Basically, the committee was in favor of the idea but wanted details (Devil is in the details).

Willie passed around 50 m grid map with 4 tentative sites (**Appendix C**).

Proposal overview

-Willie does not want to detract from NATL's objectives (aesthetic concerns, sensitive to digging holes), but feels soil pits would be excellent opportunity to teach students (250-300 p/ year, including Soil & Water Science classes) on campus.

-Doug briefly mentioned that NATL is for use and education (not a preserve), and so aesthetic concerns should be secondary.

- Willie outlined how a holistic view of soils tells the truth (though we may not understand the language). If judicious in selection of sites, important hydrological-soil-plant relationships are apparent. 3 potential soil pits at NATL include upland pine, phosphatic, and disturbed area (old field plots).

Dimensions

20' x 22' footprint enclosed by some type of fence (will need EH&S approval)

6' wide face x 12' long pit

Maximum 2 m deep

Dug with backhoe & spoil pile will be left on site

Comments:

Erick Smith- Would a permanent soil core display achieve same objective?

Willie & Jack- No, you lose the topography of the horizon, subtle distinctions of layers (e.g. iron concentrations), and overall graphic impact. A naturalist would walk miles to see a soil pit rather than a core sample a few feet away.

Jack & Tom- Would pits be covered/roofed, & how would you stabilize sites?

Willie- Looking for feedback on details, any input is appreciated.

Jack mentions if done right, a good pit can last ~ 10 years (e.g. Austin Cary)

Erick Smith, in response to soil pile-

Recently noticed that on sites where people dig for arrowheads, invasive plants tend to colonize spoil piles rapidly! Recommends close monitoring.

Also mentions that a Dig Permit will be required.

See <http://www.ppd.ufl.edu/operengdigpermits.htm> for details.

Tom mentions to be especially careful if site is selected along Gasline Trail, as there are literally old lines underground.

Tom Walker motioned to have Willie write up a formal proposal (including a technical diagram of pit dimensions, total footprint, fence height, etc.) and select **one site** for a pilot pit. The site should be flagged so that NAAC members can visit, read over the proposal, and then formally vote on moving forward.

Erick Smith seconded the motion and the vote was in favor (unanimous).

9. Fiscal report – FY 2008-09, partial year

Tom Walker reported (**Appendix D**).

10. NAAC chair position

Doug announced Jack Putz as the new NATL chair, commencing Fall 2009

5:15 pm adjourn

Appendix A

Summary of Progress on NATL History Minigrant

Charlotte Porter and David Munroe
(22 April 2009; edited by Doug Levey)

1. Location of a 1840s map showing property as belonging to J. K. Townsend.
2. Location at EPA archives of a 1843 survey describing the land as "3rd rate" pine, no old forest.
3. More information about Clara Witt Richbourg's purchase of 300 acres at 1901 auction of the property and appraisal of the house as the second most expensive in Gainesville.
4. We can now confirm that the Richbourg land was divided amongst their heirs and several other parties late in the elder Richbourg's lives. Three plots were either given or sold to the Board of Education. David is currently investigating the circumstances of all these transfers.
5. About the title. Conversation with UF General Counsel, Ms. Maija Kristina Raattama verifies that there is no physical title, but a "vested deed" from the Richbours (1940s?) to the State of Florida on behalf of the College. This deed was transferred by the State of Florida to the Board of Education in 2001. The vested deed is regarded as legal title.
6. At this time, review of the Florida archives includes no photographs of Section 12, except for angled aerial views, hard to interpret. We'll work on these.
7. The Alachua County archives and major weather events are the last challenge for the month of May 2009.

Summary of Progress on NATL Invasive Species Minigrant

Gerardo Celis and Corrie Pieteron
(22 April, 2009)

Prior to initiating our efforts in March, we met with Dr. Walker to get familiarized with previous exotic invasive treatments and potential hot spots within NATL of our target species. In our discussion with Dr. Walker, we determined that it would be most useful to focus initially on exotics within NATL, then later in the growing season begin working with neighboring landowners. We started to inventory and control our target species on the Northwestern portion of NATL's hammock. As part of the inventory we gathered GPS points of each individual plant encountered and controlled. As of today, *Ardisia* is the most abundant species and *Lygodium* has been found in only two locations. Our control efforts have focused on *Ardisia* and our method of control has been hand pulling. In an effort to coordinate data collection that would complement Dr. Kitajima's 2000 inventory and control of *Ardisia crenata*, we met with her to discuss methodology. We concluded that it would be valuable to use the same methodology to compare change over time and to inventory areas that were not included in their initial effort. However, we need to collect more information on other efforts of control conducted in these areas. We plan to contact previous NATL TA's to gather more information on treated areas.

Appendix B

Small mammal trapping at NATL

Marissa Streifel, NATL undergraduate TA

NATL has four unique ecosystems: Marsh, Old field, Upland pine, and hardwood hammock. The purpose of this trapping effort was to survey the small mammal populations in these different ecosystems. Trapping was conducted on three consecutive nights. 150 Sherman live traps were set each night. Assistance was provided by the Fall 2008 UF Mammology class. Dr. David Reed was the instructor for this class and provided traps and spring scales. Bret Pasch was the teaching assistant and provided technical field assistance. The following data were collected: species, trap location, sex, age (juvenile, Subadult, Adult), Reproductive status (scrotal, non-scrotal, null, parous, pregnant, lactating), mass, tail length, hind foot length, and ear length.

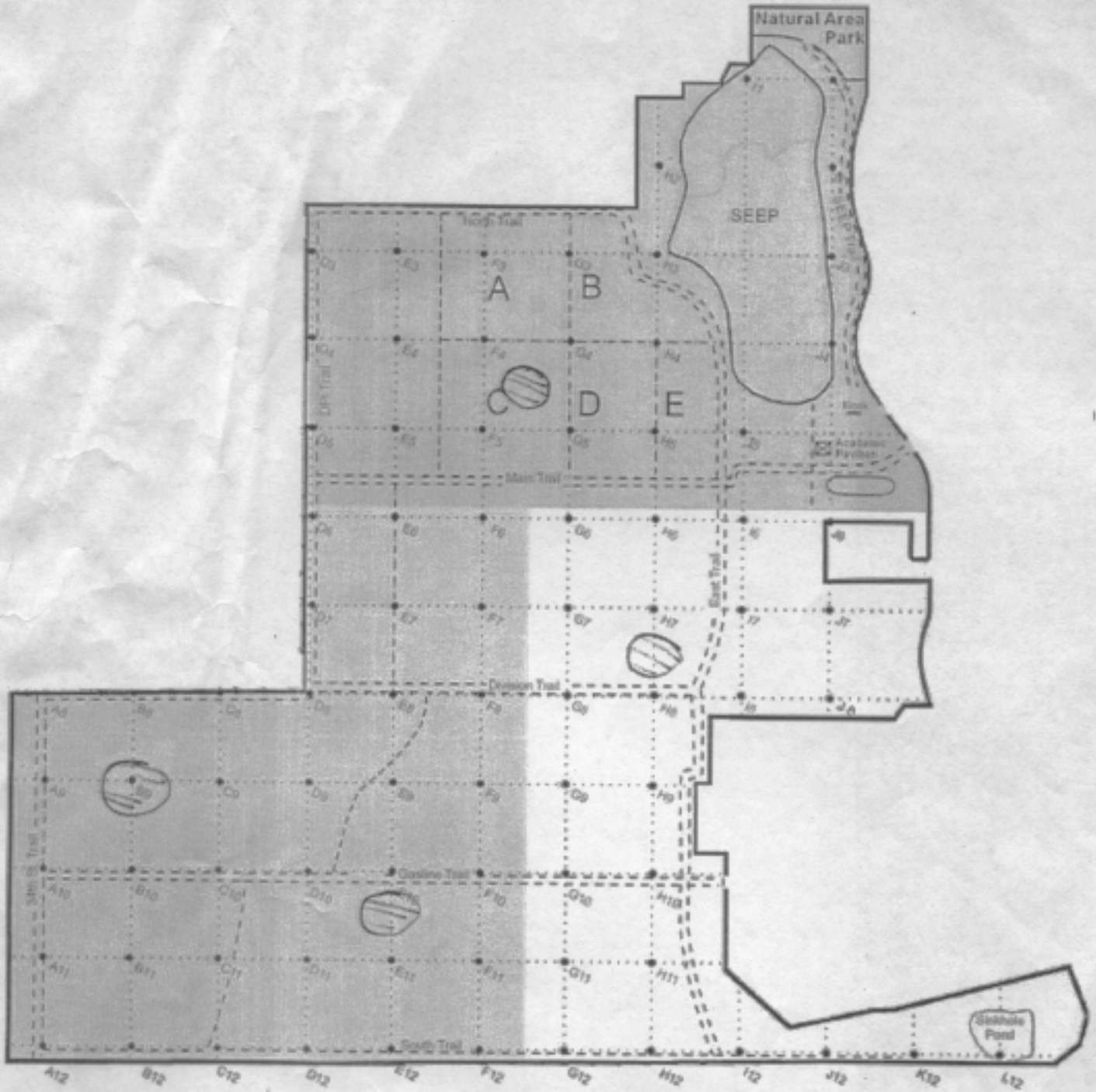
The first ecosystem we surveyed was the marsh habitat. This trapping was conducted during a full moon and was probably the cause of our low trap success. With three nights of trapping, only one mammal was captured. The following data were collected from the marsh ecosystem:

Species	Location	Sex	Age	Repro	Mass	Tail	Hind ft	Ear
<i>Peroyscus gossypinus</i>	Near sinkhole	M	A	Scrotal	32 g	65 cm	20 cm	6 cm

The old field trapping was conducted on a new moon and resulted in much greater trap success. Old field A is on a 10 year rotation and was last tilled in 2002. Old field B is on a 1 year rotation. Old field C is on a 40 year rotation and was last tilled in 2000. Old Field D is on a 10 year rotation and was last tilled in 1997. Old field E is on a 40 year rotation and is scheduled to be tilled in 2020. Trapping efforts were focused in old fields A, C, D, and E. The following data were collected:

Species	location	sex	age	Reprod	Mass	Tail	Hind foot	Ear
<i>Sigmodon hispidis</i>	D	F	A	Parous	222	56	27	12
<i>Sigmodon hispidis</i>	C	F	A	Parous	201	95	32	11
<i>Sigmodon hispidis</i>	C	F	J	NA	33	60	25	10
<i>Sigmodon hispidis</i>	C	M	J	NA	38	63	25	11
<i>Sigmodon hispidis</i>	C	F	A		220	55	29	18
<i>Sigmodon hispidis</i>	C	F	J	NA	39		24	
<i>Sigmodon hispidis</i>	D	F	SA	NA	90	75	29	12
<i>Sigmodon hispidis</i>	D	F	SA	NA	90	85	29	10
<i>Sigmodon hispidis</i>	C	F	J	NA	24	56	22	14
<i>Sigmodon hispidis</i>	C	M	A	NA	240	54	31	15
<i>Sigmodon hispidis</i>	C	M	A	NA	202	96	31	21
<i>Sigmodon hispidis</i>	C				190			
<i>Sigmodon hispidis</i>	D	F	A	Lact	200	100	32	15

Appendix C. Potential soil pit sites



Appendix D

NATL Fiscal Plan for FY 2008-09					23 Apr 09 Report		
Funds available for 2008-09*							
Brought forward from 2007-08							
		NATL endowment	1234			0	
		NAAC expense account	391			391	
		Sum		1625			391
Projected income for 2008-09							
		Provost	2000			2200	
		NATL endowment	5400			4930	
		Sum		7400			7130
		Grand Total			\$9,025		\$7,521
Spending plan for 2008-09							
Budgeted							
		Routine expenses	2000		*	2241.91	
		Undergraduate assistant	3600			2986.22	
		Minigrant program	1000			1000	
		Paint pavilion?	500			0	
		Materials for NATL-east walkway?	300			992.44	
		Sum		7400			7221
		Reserved		1625			0
		Grand Total			\$9,025		\$7,221
						Still available	300.43
		* This does not include the money pledged by the CALS dean for the stipend of the NATL Graduate Teaching Assistant (ca. \$20,100)				* Includes materials for:	
						SEEP nature trail	383.14
						NATL-east bridge	112.18
						Sum	495.32

NAAC MINUTES ADDENDA

Votes on business conducted by email, Fall 2008 to Spring 2009

2008 November

Vote for NATL-east walkway expenditure (0 Yes; 0 No; 0 Abstain)

2008 December

Vote to approve Bret Pasch as NATL TA for spring 2009 (19 Yes; 0 No; 1 Abstain)

2009 February

Vote for Celis & Pieterseon minigrant (15 Yes; 0 No; 1 Abstain)

Vote for Munroe minigrant (20 Yes; 0 No; 0 Abstain)

2009 April

Vote to approve Natalie Hooton as NATL TA for summer 2009 (19 Yes; 0 No; 0 Abstain)

Vote to approve Jack Putz as Vice-Chair of NATL (19 Yes; 0 No; 0 Abstain)

2009 May

Vote to approve NAAC minutes (16 Yes; 0 No; 0 Abstain)