

# University of Florida

## Natural Area Teaching Laboratory (NATL)

### 2004-2005 Annual Report

During the 2003-2004 school year the Natural Area Advisory Committee consisted of Mark Brown (Environmental Engineering Sciences), Mark W. Clark (Soil and Water Science), Matthew Cohen (School of Natural Resources & Environment), Donald W. Dickson (Entomology & Nematology), Deb DiPietro (Florida Museum of Natural History), Donald A. Graetz (Soil and Water Science), Sandra Garrett (Entomology & Nematology Student Organization), Susan Jacobson (Wildlife Ecology & Conservation), Linda Jones (Teaching & Learning), Jim Kimbrough (Plant Pathology), Kaoru Kitajima (Botany), Doug Levey (Zoology), Alan J. Long (Forest Resources & Conservation), Francis E. Putz (Botany), Erick Smith (UF Urban Forester), Jeff Smith (Wetlands Club), Peter van Blokland (Lakes, Vegetation & Landscaping Committee), Thomas J. Walker, chair (Entomology & Nematology), Sally Wazny (Florida Museum of Natural History).

The Committee met twice: 9 Dec 2004 and 20 Apr 2005. Between meetings, business was conducted by e-mail. All annual reports and minutes of meetings are archived at <http://natl.ifas.ufl.edu/ann-mins.htm>.

#### Long-range planning

During the 2004-05 School Year, three committees considered the long-term future of NATL and made noteworthy recommendations and decisions:

##### *Natural Area Advisory Committee (NAAC)*

During the fall, coincident with the completion of NATL's first ten years, NAAC began planning for NATL's long-term future. Adding impetus to the planning efforts were upcoming updates of the master plans of the University and of its Cultural Complex, the need for increased administrative support of NATL, and the prospect of \$500,000 in Capital Improvement Trust Fund [CITF] money for conservation-area infrastructure in the next two fiscal years.

In January 2005, NAAC approved a plan for the "Future management, maintenance, and funding of NATL." (<http://natl.ifas.ufl.edu/NATLmanage.pdf>). The plan proposed that NATL be jointly supported by the Senior Vice President for Agriculture and Natural Resources and the Provost and Senior Vice President for Academic Affairs. Nearly all of the increased funding recommended was to be used to hire a NATL Teaching Assistant. The NAAC proposal was presented to Wayne Smith, acting CALS Dean, and Joe Glover, acting Provost. Neither could make long-term commitments for their successors, but both suggested that budgetary responsibility for NATL might be assumed by the School of Natural Resources and Environment (SNRE). When contacted by NAAC, SNRE responded favorably to the idea and suggested that implementation might be accomplished by FY 2006-07. That left increased funding for FY 2005-06 in limbo, but one-time pledges of \$10,000 from CALS and \$5,000 from Environmental Engineering made possible the hiring of a NATL Graduate Teaching Assistant for the 2005-06 School Year. Other units with courses that make use of NATL have indicated they will likely donate enough this spring to cover the remaining \$5,000 needed to support the assistantship during FY 2005-06.

All NAAC planning documents are posted at <http://natl.ifas.ufl.edu/NATLrPlans.htm>.

##### *The 34<sup>th</sup> Street Committee*

The 34<sup>th</sup> Street Committee is a UF Presidential committee that speaks for the institutions that are part of UF's Cultural Plaza and those that are near neighbors. The Committee's 2001 Cultural Plaza Master Plan (<http://natl.ifas.ufl.edu/CPmasterplan.htm>) included the development of NATL's Natural Area Park (now accomplished) and the establishment of a new entrance into NATL via a pedestrian way between Powell Hall and the Phillips Center. In May, the Committee adopted a new master plan for the Cultural Plaza which

had been developed by a subcommittee during the previous six months. The revised plan retains the new entrance into NATL but differs from the previous plan in that the assembly area for groups using the entrance is an open-air, roofed portion of a southward extension of Powell Hall, rather than a gazebo within NATL.

### *Conservation Study Committee*

The Conservation Study Committee is one of three committees appointed to help with the 2005-2015 update of the Campus Master Plan. A major part of the Committee's work has been to recommend areas that should be in the Conservation Area land-use category, policies that should pertain to these areas, and how these areas should be managed. The Committee's recommendations pertaining to NATL include (1) expanding the boundaries of the NATL Conservation Area to include land that NAAC has managed in the past but that was not part of the Conservation Area and land that was part of the Surge Area but not yet developed as such and (2) making the Surge Area Wetland Conservation Area a part of NATL. To make names less confusing, the Committee recommended that the NATL Conservation Area become the NATL-west Conservation Area and that the Surge Area Wetland Conservation Area become the NATL-east Conservation Area. The Committee approved management plans for NATL-west and NATL-east that NAAC had recommended.

### **Integration of NATL-east into NATL begun**

In January, the Lakes, Vegetation and Landscaping Committee approved the addition of the Surge Wetland (now NATL-east) to NATL. In March, NAAC received final administrative approval for that change. This enlargement of NATL requires that much material related to NATL be altered (e.g., pamphlets, posters, web sites) and that infrastructure developed for NATL-west be extended into NATL-east (e.g., 50-meter grid, photographic record, grid-based soil survey). Steps already taken include laying out trails in NATL-east, development of maps showing the new NATL (<http://natl.ifas.ufl.edu/index.htm#map>), and revisions of portions of the NATL web site--for example, the list of NATL's vascular plants now includes the plants of NATL-east (<http://natl.ifas.ufl.edu/plants.htm>) and the wetlands image gallery now includes pictures of NATL-east's central marsh (<http://natl.ifas.ufl.edu/seepgall.html#cenmarsh>).

### **Many help to improve Natural Area Park**

Through the efforts of ADA coordinator Ken Osfield, PPD's architect Jim Kisling, and Urban Forester Erick Smith, an ADA-compliant walk between the main body of the Cultural Complex and Natural Area Park was constructed and landscaped. With funds from IFAS Facilities Operations, a 24-inch-high board fence was erected on the north and east boundaries of the Park. PPD contributed a standard UF sign identifying "Natural Area Park" at the park's north pedestrian entrance. NAAC volunteer Ken Prestwich planted and mulched examples of three more species of native tree provided by Erick Smith.

### **Minigrant program begun**

This past fall, with \$2000 donated anonymously for the purpose, NAAC established a minigrant program to encourage student projects that enhance NATL's information infrastructure. Two \$500 grants were awarded in December: one was to Jeffrey Morgan, for "Historical ecology of UF's Natural Area Teaching Laboratory" (faculty sponsor, Jack Putz, Botany) and the other was to Ian Fiske and Matthew Trager for "Species

composition and habitat associations of ant communities in the Natural Area Teaching Lab” (faculty sponsor, Emilio Bruna, Wildlife Ecology and Conservation).

[For more about the minigrant program, see <http://natl.ifas.ufl.edu/minigrants.htm>.]

### **Upland pine restoration advances**

With help from Austin Cary burn crew, UF’s Physical Plant, and Alachua County Fire and Rescue, Alan Long directed controlled burns of all portions of NATL upland pine in late winter and spring. In June, several longleaf pine seedlings were found in NATL’s public-area upland pine ecosystem. This was the first natural reproduction of longleaf pines in this tract in more than 40 years!

The effort continues to establish growth stages of longleaf pine between new seedlings and mature trees, the latter being the only age category extant when NATL was established. This June and July, volunteers planted nearly 300 grass-stage and ready-to-shoot longleafs, and took measures to prevent further losses among the 50 six-foot longleafs transplanted into the public-area upland pine during the summer of 2004.

More wiregrass was transplanted into NATL’s upland pine this summer: 50 two-gallon clumps of wiregrass into the public-area upland pine and 500 wire grass slips into the restricted-area upland pine.

[For images and descriptions of these steps toward restoration, see <http://natl.ifas.ufl.edu/pinegall.html>.]

### **Hurricanes Frances and Jeanne impact NATL**

In early and late September, Frances and Jeanne blew through NATL and downed at least thirteen trees that were 12-inches or greater in diameter. Most of the damage was in the restricted-area hammock, where the largest casualty was a 31-inch swamp chestnut oak that fell across East Trail. Only three mature longleaf pines were toppled, with the largest being 18 inches in diameter.

The two hurricanes dumped 12.2 and 6.8 inches of rain on NATL. Each time, the flood waters in the depression basins that drain into NATL and Regency Oaks sinks reached unprecedented levels and caused major disruptions, closing Surge Area/Natural Area Drive and flooding the Regency Oaks Apartments parking lot. The severity of the Regency Oaks flooding was made slightly worse by the south end of NATL’s 34<sup>th</sup> Street berm restricting the rate at which water could spill over the edge of the Regency Oaks depression basin into the Hogtown Creek drainage. PPD soon eliminated the possibility of this happening again by removing the restrictive few feet of berm.

### **Other items**

*Legislature approves CITF money for UF conservation areas.* As expected, the Florida Legislature approved the release of \$500,000 from CITF in 2005-06/2006-07 for UF’s Environmental Stewardship project (<http://natl.ifas.ufl.edu/CITFmoney.pdf>). VP Ed Poppell is working with Faculty Senate Chair Kim Tanzer and Student Government President Joe Goldberg to put together a group that will recommend how the funds should be allocated.

*Trash removed from legacy dump sites.* First-Year Florida classes removed two major trash aggregations that pre-date NATL’s start in 1993. One of these was a weed-choked, hard-to-access triangle of land just north of the parking lot for Regency Oaks Apartments,

where they took away more than 20 large bags of trash and numerous objects too large to bag. The other legacy site was a small sink where household trash from a farmhouse on Archer Road was dumped for many years. Here, six students extracted enough bottles, rusted cans, etc. from decaying leaves and soil to fill 15 large bags, which they carried up the steep sides of the sink to and to East Trail, for later pick up by PPD.

*Invasive exotic plants targeted.* This spring NATL benefited from a \$21K grant from the Withlacoochee Regional Invasive Plant Working Group of the DEP-BIPM Uplands program, secured through the efforts of Erick Smith and Alex Holecek. The grant was to fund a contract for the control of invasive exotic plants in the Hogtown Creek Woods and Natural Area Teaching Lab conservation areas. Before the grant ended in mid June outbreak areas of the following species were herbicided: cogon grass, skunk vine, air potato, Japanese climbing fern, mimosa, and Johnson grass.

*Pedestrian way between NATL and the Cultural Plaza begun.* With the help of FLMNH Director Doug Jones, the south-most portion of a pathway between NATL and the main body of the Cultural Plaza was staked out. Volunteer Ken Prestwich later cleared the right-of-way, and PPD used its heavy equipment to cover the trail with a layer of ground-up tree trimmings supplied by GRU.

*NAAC chair and members change.* NAAC elected Mark Clark as Chair for 2005-06, to replace Tom Walker. Elizabeth Hodges will replace Jeff Smith as representative of the Wetlands Club, and Karla Adesso will replace Sandra Garrett as representative of the Entomology & Nematology Student Organization.

*NAAC's fiscal status.* On 14 Aug 2004, the balance in NAAC's expense account was \$139.27. In September, Provost Colburn added \$1,000. On 14 Aug 2005, the balance was \$816.55. The only expenditure greater than \$100 during the year was \$150 for wiregrass slips.