

University of Florida Natural Area Teaching Laboratory (NATL) 2000-2001 Annual Report

During the 2000-2001 school year the Natural Area Advisory Committee consisted of Mark Brown (Environmental Engineering Sciences), Mark Clark (Wetlands Club), Donald W. Dickson, chair (Entomology & Nematology), Donald A. Graetz (Soil and Water Science), Susan Jacobson (Wildlife Ecology & Conservation), Linda Jones (Teaching & Learning), Kaoru Kitajima (Botany), Doug Levey (Zoology), Alan J. Long (Forestry), Francis E. Putz (Botany), Marilyn Roberts (Florida Museum of Natural History), Clay W. Scherer (Entomology & Nematology Student Organization), Carol Stiles (Plant Pathology), Thomas J. Walker, admin. asst. (Entomology & Nematology), Alison M. Fox, ex officio (Lakes, Vegetation & Landscaping Committee).

The Committee met twice: 30 Nov. 2000 and 19 Apr. 2001. Minutes are posted at <http://natl.ifas.ufl.edu/ann-mins.htm>. (Between meetings, business is conducted by e-mail.)

Provost Colburn sets NATL policies

On 28 Mar. 2001 Provost David Colburn approved the following statements describing how NATL is to be managed, maintained, and funded:

Management

The Natural Area Advisory Committee (NAAC), consisting of at least one representative from each department or other unit making significant use of NATL and the Chair of the Lakes, Vegetation and Landscape Committee, will recommend management plans and seek their implementation. Each fall the Chair of NAAC will send a written report of the Committee's activities for the previous school year to appropriate administrators and will report in person to the Lakes, Vegetation, and Landscape Committee.

Maintenance

NAAC and PPD will work cooperatively to ensure the maintenance of NATL. Each will do those tasks that it can handle most efficiently. The Chair of NAAC will communicate directly with PPD and the Vice President of Administrative Affairs regarding maintenance of NATL.

Funding

NAAC will ask the Provost for funds to cover its routine operations. Each such request will be accompanied by a report of all NAAC expenditures not previously documented. For major projects, NAAC will also request the Provost's support, but with copies to the Vice President of Administrative Affairs, the Vice President for Agriculture and Natural Resources, and the Deans of the Colleges of Agricultural and Life Sciences, Liberal Arts and Sciences, Engineering, and Education.

Academic pavilion sought

At its 19 April meeting, NAAC voted unanimously that its highest priority for adding to NATL's infrastructure was a pavilion near the east entrance to NATL that will seat and shelter classes of as many as 30 students. To develop specifications and a cost estimate, NAAC is working with the Florida Museum of Natural History, which seeks a similar pavilion, for docent-led groups, at its entrance to NATL, and with Buford Davis, who is preparing the master plan for the Cultural Complex

Interface with Cultural Complex advanced

A four-board corral fence was erected just south of the rear parking area of the Phillips Center, thereby stopping use of NATL as a shortcut to the parking area and reducing the litter from those entering NATL from the north for nonacademic purposes. Space was left north of the fence for landscaping with palms and wax myrtles.

NAAC is cooperating with Buford Davis as he develops a Cultural Complex master plan. His conceptual plan of 6 June included an inviting entrance to NATL from the west area of the Complex made possible by eliminating the pavement presently connecting the areas behind Powell Hall and the Phillips Center. On the east end of the Cultural Complex the plan has a second entrance into NATL via a "Natural Area Park" just north of the retention pond.

PPD upgrades NATL infrastructure

The Physical Plant Division (1) completed NATL's south fence, closing a wide gap that went unfenced for 4 years because of a disagreement over the location of UF's south boundary; (2) realigned the Main Trail south of the successional plots to its historical position; and (3) excavated a 30-foot-diameter ephemeral pond, for frog breeding, in the southwest corner of successional plot D.

Student Geomatics Association maps NATL

In December, Tim Whitaker, President of the UF chapter of the Student Geomatics Association completed a revision of the AutoCAD map of NATL. The new map has 13 layers and, unlike the previous map, accurately displays NATL's boundaries, trails and land uses in addition to its grid system.

In May, Chris Sloan, also of SGA, completed an AutoCAD contour map of SEEP and updated the AutoCAD map of NATL.

These maps and directions for their use are posted at <http://natl.ifas.ufl.edu/aerigall.html>.

NATL's extent and land uses quantified

With the aid of the new map made by SGA, NATL's total area was calculated to be 46 acres, with 6 acres devoted to five successional plots, 15 acres to upland pine, 18 acres to hammock, 3 acres to the Storm Water Ecological Enhancement Project (SEEP), and 4 acres to other uses, including a Natural Area Park, a kiosk and assembly area, the 34th Street berm, and mowed trails.

Successional plots cleared and started

Plot C, a 40-year-rotation plot, was started in Dec. 2000. Unlike Plot D, a 10-year plot started in 1997, one third of plot C has native soil. Furthermore, some of the clay dumped on the site decades before and recently excavated for use on the 34th Street berm was replaced with a more loamy soil.

IFAS Facilities Operations completed the clearing of plot A, the second 10-year plot, in preparation for its start in 2002. The western portion of plot B was also cleared, allowing it to begin to fulfill its role of displaying the earliest stages of secondary succession in years when no other plot is tilled.

Signs installed

NATL's boundaries and the location and rotation schedules of its five successional plots are now identified with signs made by PPD and paid for by IFAS Facilities Operations.

Southern pine beetles invade

Dr. John Foltz (Entomology & Nematology) and Erick Smith (PPD) worked together to contain an outbreak of southern pine beetles in NATL's loblolly pines. In May, at the beginning of the outbreak, about 50 large loblolly pines were felled and removed by a commercial logger. In June, 13 more infested loblollies were discovered, felled, cut into sections, and sprayed with insecticide. In August, 11 more were discovered and treated the same way. The good news is that NATL has many large loblollies remaining and thus far has lost only one longleaf pine to SPB.

Invasive exotics battled

Nine invasive exotic plants have been targeted for control in NATL. Elephant grass (*Pennisetum purpureum*) and Chinese tallow (*Sapium sebiferum*) were apparently extirpated this year. Air potato (*Dioscorea bulbifera*), Japanese climbing fern (*Lygodium japonicum*), skunk vine (*Paederia foetida*), coral ardisia (*Ardisia crenata*) and mimosa (*Albizia julibrissin*) were reduced by more than 50%. Johnson grass (*Sorghum halepense*) was significantly reduced. On the other hand, cogon grass (*Imperata cylindrica*) held its own or increased in spite of repeated applications of glyphosate.

Restoration of upland pine continued

During May and June, long-time NATL volunteer, Dr. Ken Prestwich, from Holy Cross College, Worcester, MA, felled, girdled, and poisoned laurel oaks in the area south of the DPI compound. Through his effort, plus those of earlier volunteers, a closed canopy of laurel oaks no longer exists in any part of NATL's to-be-restored upland pine ecosystem.

After three years of successful, uneventful controlled burns, led by Alan Long, no burn could be scheduled during the 2000-2001 burning season.

New brochures

Brochures describing NATL and SEEP (Stormwater Ecological Enhancement Project) were revised. In cooperation with the Wetlands Club and the Center for Wetlands, 1000 SEEP brochures were printed in full color.

PPD mows NATL

In June, PPD took over the routine mowing of NATL trails, the assembly area at the kiosk, and the area between the east fence and SEEP. [Previously NAAC volunteers did this mowing.]

New home page URL

The home page of NATL was moved from <http://csssrvr.entnem.ufl.edu/~walker/natl.htm> to <http://natl.ifas.ufl.edu>. [The URL <http://natl.ufl.edu> was reserved 2 years ago, but no practical way to implement its use has been found.]

NATL in the news

An article entitled “40-year plan initiated for NATL” appeared in the *Alligator's University of Florida Digest*, 29 Nov. 2000. It included a map of NATL's successional plots and a photograph of the three professors who wrote the proposal in 1993 that led to the founding of NATL.

NAAC updates its operating procedures

At its 19 April meeting, NAAC gave initial approval to a revision of its operating policies that makes them conform to the Provost's new policies for the management of NATL. [Current operating policies are always posted at <http://natl.ifas.ufl.edu/natlmgmt.htm#OpPolicies>.]

NAAC fiscal status

During the year that started 15 Aug. 2000, the balance in NAAC's account decreased from \$2042.19 to \$693.64. Expenditures greater than \$200 were \$1552 for a corral fence behind Performing Arts and \$381 for full-color SEEP brochures. The only income for the period was \$1000 from the Office of the Provost.

Committee membership and chair changed

Shane Hill replaced Clay Scherer as representative of the Entomology and Nematology Student Organization. Benjamin Skulnick replaced Mark Clark as representative of the Wetlands Club, but Mark remains a member of NAAC in his new position with the Wetland Biogeochemistry Laboratory. Dep DiPietro and Michael Bond became new members representing the Florida Museum of Natural History and the Ethnoecology Society respectively. Tom Walker was elected as Chair for 2001-2002, replacing Don Dickson.