

## Registration Information

1. All participants must be 18 years of age or older.
2. FMNP does not provide university credit toward a degree-seeking program.
3. Registration cost \$150 includes detailed course manual, with bibliography and synthesis documents; all travel to field sites and classroom refreshments.
4. **Registration must be submitted online.**
  - **Registration Steps - go to**  
⇒ <http://conference.ifas.ufl.edu/fmnp/S10-03.htm>  
⇒ **Link for registration is a button at the bottom of the page**

Principle Course Instructor:  
Rob Northrop, Extension Forester  
University of Florida IFAS

Field Trip Leaders:  
George Kish, Hydrologist  
U.S. Geological Survey

Anne Schmidt, Environmental Scientist  
GPI Southeast, Inc.

Mary Barnwell, Senior Land Manager  
SW Florida Water Management District

*The Florida Master Naturalist Program (FMNP) is an adult education UF/IFAS Extension program developed by the University of Florida and provided by many Extension offices and participating organizations throughout the state of Florida. FMNP training will benefit persons interested in learning more about Florida's environment or wishing to increase their knowledge for use in education programs as volunteers, employees, and ecotourism guides.*

## Conservation Science Florida Master Naturalist Program <http://www.masternaturalist.ifas.ufl.edu/>

October 9, 16 and 23, 2010

Register online at:  
<http://conference.ifas.ufl.edu/fmnp/S10-03.htm>

*This class will be limited to the 20 workshop participants.*

Find detailed information on this course at :  
<http://urbanforestry.ifas.ufl.edu/UpcomingEvents.shtml#Registration>  
or  
<http://tampabayforest.org/UpcomingEvents.htm>

Inquires please contact  
Rob Northrop  
Phone: 813-744-5519 x106  
E-mail: [northrop@ufl.edu](mailto:northrop@ufl.edu)

University of Florida IFAS  
Hillsborough County Extension  
5339 County Road 579  
Seffner, Florida 33584  
813-744-5519  
<http://hillsborough.ifas.ufl.edu/>



**Hillsborough County Extension is a cooperative service of Hillsborough County Board of County Commissioners and the University of Florida.**

The Institute of Food and Agricultural Sciences (IFAS) is an Equal Employment Opportunity Institution authorized to provide research, educational information and other services only to individuals and institutions that function with non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, marital status, national origin, political opinions or affiliations. U.S. Department of Agriculture, Cooperative Extension Service, University of Florida, IFAS, Florida A. & M., University Cooperative Extension Program, and Boards of County Commissioners Cooperating.



Florida Master  
Naturalist Program

## Conservation Science



University of Florida IFAS  
Hillsborough County Extension

October 9, 16 and 23, 2010



In cooperation with the  
**Tampa Bay  
Watershed  
Forest Working  
Group**

## Conservation Science

### Course Purpose

This course is designed to educate people in the concepts, language, and science related to conservation needs, planning, and action. People that complete this course will better understand the complexities of conservation, which will make them both better educators and participants in local conservation efforts. This course will cover concepts such as species diversity, measuring biodiversity, the processes that generate and maintain biodiversity, types of ecosystem services, ecological processes, habitat fragmentation, effects of human activities on ecosystems, the history of conservation in North America, and strategies for conservation planning.

### Course Goals

1. Understand the role that biodiversity plays in conservation science.
2. Understand the factors that sustain or threaten ecosystem integrity.
3. Understand the strategies and approaches used to conserve biodiversity and maintain ecosystem integrity.

Each one-day workshop is designed to include a morning classroom session and discussion, followed by a field trip and/or practical activity.



## Workshop Schedule

### Topic: Biological Diversity

October 9, 2010

Field: University of South Florida, Eco-Area  
Comparison of high plant diversity (threatened, endangered & fire dependent species) in an urban natural area vs. low plant diversity in a highly managed area

George Kish-Anne Schmidt-USF, Field Trip Leaders

### Learning Objectives:

1. Describe biological diversity (biodiversity).
2. Understand the geographical scale dependence of biological diversity description.
3. Describe major empirical generalizations related to biodiversity, including the species-area effect, the latitudinal gradient in species richness, the relationship between habitat diversity (heterogeneity) and species richness, and the diversity-stability relationship.
4. Describe the ecological processes that generate and maintain biodiversity.
5. General knowledge of past mass extinctions and the current extinction crisis.
6. Explain some utilitarian and non-utilitarian reasons for conserving biodiversity.

### Topic: Ecosystem Integrity

October 16, 2010

Field: Green Swamp

Longleaf Pine Ecosystem Restoration Project  
Mary Barnwell - SWFWMD, Field Trip Leader

### Learning Objectives:

1. Understand types of ecosystem services and provide examples of threats to ecosystem integrity.
2. Understand ecosystem resilience, ecosystem collapse and alternative stable states.
3. Understand the general history of ecosystem decline and degradation in North America.
4. Understand why both common and rare species can be important in ecosystem function.
5. Understand that ecological processes are essential for maintaining biodiversity and ecosystem integrity.

6. Understand habitat loss and fragmentation and impacts on biodiversity and ecosystem integrity.

7. Explain the effects of altering natural disturbance regimes on ecosystem integrity.

8. Understand how human activities can impact ecosystem integrity.

9. Understand the specific threats exotic and invasive species pose to ecosystem integrity.

10. Understand threats posed by global climate change.

### Topic: Conservation Strategies for Sustainable Ecosystems

October 23, 2010

Field/Activity: How are we doing at integrating local and eco-regional strategies to sustain ecosystems in Florida and the S.E.. Hillsborough County Environmental Lands Acquisition Program (invited)  
Florida Fish & Wildlife Commission (Invited)

### Learning Objectives:

1. Have a working knowledge of the history of conservation responses to threats to biodiversity and ecosystem integrity, especially in North America.
2. Identify and describe strategies of modern conservation planning, including principles and methods for the selection and design of conservation areas.
3. Understand approaches used to mitigate impacts of habitat fragmentation and the impacts of roads (e.g., barrier fencing and wildlife crossings).
4. Understand the logic and concepts of using cost-benefit analysis in conservation planning.
5. Articulate the advantages of ecosystem-level conservation and management, as opposed to purely species-level management.
6. Understand that ecological restoration and mitigation are essential components of conservation today.
7. Understand the importance of local land-use planning to accomplish broader goals.

