

### **Introductory Campus Nature Walk**

**Tasks:** As you visit the location today, pay attention to our observations and to the discussion topics. When you summarize the excursion in your Nature Journal, answer the following questions in detail. Anything else you want to write about is highly encouraged to help you reinforce your learning. Use the “Naturalist’s Journal Template” for assistance in formatting! A multi-page entry with high-quality responses is expected.

- Describe each of the ecosystem types we visited.
- Explain these three factors that assist ecologists in determining ecosystem type: Hydroperiod, Soil Characteristics, and Elevation (local topography) differences.
- Observe big! Observe small! Learn to make observations like an ecologist!!! Using the “Naturalist Journal Template”, make a series of observations. First, observe something very small and draw it, record relevant information, and a written description. Next, observe the “vertical stratification” of the pine flatwood (recall my analogy to the floors in a building) and draw the ground level, understory level(s), and canopy. Also add a written description that summarizes your observations.
- What was your favorite ecosystem type we observed today? Why?
- Describe how the soils were different at each ecosystem type.
- Name 5 plant species you saw and list the **distinguishing features** for each one.
- Give definitions for each of the terms related to the ecological hierarchy, or the scales of ecological complexity.
- Describe the differences between a food chain and a food web.
- What are the 4 major components of biodiversity? What is meant by each of these 4 components?
- In your opinion, is it important to conserve green space on a college campus like our’s? Why or why not?
- Who and what factors influence your “land ethic”?
- Explain how you connected to your natural surroundings today.

**Campus Ecosystem Model**

**FGCU's Watershed**

A watershed is a geographic area that empties, or drains, into a common body of water. Lakes, streams, wetlands, rivers, estuaries, and ground water can all be components of a watershed. As a system, a watershed can have several functions: collecting rainwater (flood prevention); removing particulate matter, nutrients, fertilizers, pesticides, and minerals from the water; delivering nutrients and minerals downstream; purifying drinking water; and providing habitat for plants and animals. Riparian vegetation, occurring along the bank of a stream, not only helps filter and cleanse water prior to entering the main water body, but also shades the water and the plants and animals living there.

The interconnectedness that exists within a watershed also leaves it vulnerable to human impact and environmental change. The creation of buildings, parking lots, and roads; the draining of wetlands; mining; deforestation; and agricultural activities can all alter the quality and quantity of water that flows over and infiltrates into the ground. These changes can alter watershed functions by eliminating critical water storage sites (e.g., wetlands and floodplains) and by contributing additional sediments and chemicals to runoff. Human activities can also eliminate critical natural habitat sites, thereby limiting biodiversity in the watershed (Ohio State University Fact Sheet).

Pollution in one area, the loss of another, these impact the entire region that is located downstream. The solution is watershed management, an attempt at restoring watersheds to their prime functioning capacity. Until recently, watershed management had been strictly under government control; now, in many areas, a community-based approach to watershed management is being put in place (Watershed Management Council 2002). This community-based approach takes into account environmental factors, as well as social and economic factors, in determining what strategies benefit the community the most. The community approach also crosses traditional political and municipal boundaries with the watershed being viewed as a "divide separating one drainage area from another" rather than one town from another (Watershed Management Council 2002). Florida Gulf Coast University's campus ecosystem is part of a watershed that eventually spills into Estero Bay. It is this watershed that helps maintain healthy estuaries and a healthy bay.

Campus Ecosystem Model ... Check it out online: <http://www.fgcu.edu/CAS/CEM/watershed.html>

### **Introductory Campus Walk Species List**

You need to read and familiarize yourself with the “Habitats” section of the Audubon field guide (pp. 28 – 47).

Cattail (p. 157)

Live oak (p. 99)

Sawgrass (p. 187)

Pickeralweed (p. 182)

Cabbage palm / Sabal palm (p. 106 – state tree of Florida)

Slash pine (p. 94)

Cypress (p.93)

Saw palmetto (p. 107)

Peninsular / Common cooter (p. 283)

Mosquitofish (p. 274)

Common grackle (p. 356)

Other species encountered:

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