

SeeSouthernForests.org: Create an Ecosystem Guide (Student Handout)

Use with the “Explore Maps” and “Gallery” sections of the website



Introduction

Southern U.S. forests are very diverse. They contain a range of dominant tree communities and species that have changed in composition and extent over time as a result of both natural and human-influenced processes. The most common communities are oak/hickory, loblolly/shortleaf pine, oak/pine, and oak/gum/cypress, which combined account for approximately 86 percent of southern forest area (Connor and Hartsell 2002). Approximately 52 percent of the region’s forested area is dominated by hardwoods—deciduous broadleaf trees such as oaks. The remaining forest area is dominated by softwoods—evergreen coniferous trees such as pines—or a mixture of hardwoods and softwoods.

This range of tree communities helps make southern forests among the most biologically diverse temperate forests in the world (Trani 2002). Southern forests contain the highest concentration of tree species in the United States, and their environs support 3,000 species of plants (Miller 2001), 595 species of birds, and 246 species of mammals (Trani 2002). As the home of 170 amphibian and 197 reptile species, these ecosystems are a center of amphibian and reptile diversity in North America (Trani 2002).

Your assignment

Imagine you have been hired for a forest advocacy organization to develop a guide to a specific ecosystem within U.S. Southern forests. The guide is needed to help everyday citizens understand the importance of the ecosystem, their connection to it, and policies affecting it. In fact, the advocacy organization has identified several “frequently asked questions” that you must consider as you create your guide:

- What are the key features of forest ecosystems?
- What are the key species in forest ecosystems?
- What are the native and non-native plants? Why does the difference matter?
- How do forests help support life? What role do forests play in my life?

The guide may be in any form that will help citizens understand these questions: A Powerpoint, a written report, a website, or other format your teacher may suggest.

Directions for creating your guide:

1. Select your forest ecosystem and an audience for your guide

- Go to <http://www.seesouthernforests.org>. At the main page click on the green ‘Explore Maps’ tab near the top of the screen.
- Now click on ‘composition’ from the map themes toolbox on the right side of the screen.
- The main map will now have several different red pins that represent case studies. Clicking on a pin will bring up a short description of the chosen case study.

- Select one of the following forest ecosystem case studies (red pins) as the focus of your guide and circle it:
 - Baldcypress Swamps
 - Longleaf Pine Forests and Savannas
 - Fraser Fir Forests
 - Congaree National Park
- Decide who will be the audience for your guide and write it below:

2. Learn about your ecosystem

- Learn more about your forest ecosystem case study by clicking ‘view details’ and reading the entire case study. Take notes on the important aspects of your ecosystem case study using the template on the following page. Be sure to write down the information that is appropriate for your audience.
- Go to the “Gallery” section of the site to get additional pictures, maps and graphs about your ecosystem case study. Select images and files that will help your audience better understand the information.
- Use the “Southern Forests for the Future” publication (available on the SeeSouthernForests site) as an additional resource.

3. Compile your guide

- Now you are ready to create your guide. Use your notes and any other files to create a guide in a format you or your teacher decide. The guide should include the elements noted in the rubric on the following page:

Southern Forest Ecosystem Guide Rubric:

My ecosystem case study: _____

Audience: _____

Required Elements of Ecosystem Guide: Include . . .	Yes	Getting There	Not Yet
At least two species of native plants in the ecosystem.			
At least two species of native animals.*			
At least two example of a non-native species of plants and animals that are affecting the ecosystem.			
At least two ecosystem services that are provided for the different species (including humans) that reside in and around the ecosystem.			
At least two ways your audience is affected by or connected to the ecosystem. What major ecosystem services do humans benefit from through this forest ecosystem?			
At least two ways humans have altered the ecosystem.			
An example of a protection or preservation law(s) that currently exist. If none are present, develop a proposal for how and why the ecosystem should be protected.*			
Pictures and/or graphs that illustrate information in the case study and are appropriate for your audience.			
Other criteria: Your guide is . . .			
Neat and professional-looking.			
Designed appropriately for the audience.			
Includes citations and sources of information.			

*** May require additional research. Consult the *Southern Forests for the Future* publication.**

Note-taking Template

Name of Ecosystem: _____

Native Plants:

Native Animals (mammals, reptiles, amphibians):

Non-native Plants and Animals:

Human Impact on the Ecosystem:

Ecosystem Services (what the ecosystem provides for plants, animals, humans):

Present Protection or Conservation Laws (if any):

Additional Information: