

Forest Stand Maintenance & Restoration Service Learning Project 150 Points

Due: On or before Tuesday, April 25, 2013

I. Objectives

1. To experience a service learning project that focuses upon local resource management & forest recovery as part of ecological restoration.
2. To learn the community structure and interactions within the oak-hickory forest. The community of Tyler State Park is commonly referred to as an oak-hickory Forest. The oak-hickory forest is the most common community within the Eastern U.S. region of the temperate deciduous forest biome.

II. Assignment

1. Participate in the 3 dates of the service learning project.
2. Write a 1250 word essay that includes AT LEAST the following information:
 - (A) Description & value of participating in the service learning project. This should include the following:
 - Description of the actual project.
 - Describe (botanical description) the species of vine* and shrub** that we cut away from the trees and include information as to whether they are a native species or an exotic species. Also discuss the potential size to which these plants may grow.
 - Discuss the reason for cutting or removing both, the exotic shrubs AND the vines growing on the tree trunk.
 - General discussion of the value and importance of service learning AND how our project contributes to the overall effort of local resource management/forest recovery as part of ecological restoration.
 - Discuss how what you have learned from participating in the service learning project and researching the scientific literature for this essay has contributed to your developing a “sense of place” regarding Bucks County, Pennsylvania.

- (B) Discussion of the interactions and community of the oak-hickory forest. Your essay discussion should include:
- An overview of the oak-hickory forest community.
 - Definition of an indicator species and discussion of at least two indicator tree species and two indicator animal species of the oak-hickory forest community.
 - Description of at least two specific animal and plant interactions within the oak-hickory forest community.
 - Discussion of native species, exotic species, and invasive species. Include a discussion on the importance of planting native species and removing exotic species from the community.
 - Discussion of symbiotic relationships between organisms with special emphasis upon the parasitic relationship between vines and their host plants (the host plants are trees in the case of our Service Learning project). Include a discussion on the long term impact of the vines upon their host trees.
- (C) Proper APA or MLA citation throughout the body of the paper. A References page should be included as a separate page from the main body of the essay. At least three different references should be used in the paper (your textbook may serve as one of the references). Feel free to use our class lecture as a reference. Avoid using websites that are not academic or government sites. The word count for the Reference page should not be part of the 1250 word essay.

III. Assessment

Project participation – 45 points total:

4/9/13 – 15 points

4/11/13 – 15 points

4/16/13 – 15 points

Essay – 105 points total:

Part A – 45 points

Part B – 45 points

Part C – 15 points

- *Vines: Japanese honeysuckle – *Lonicera japonica*
poison ivy – *Toxicodendron radicans* or *Rhus radicans*
wild grape – *Vitis* spp.
- **Shrub: multiflora rose – *Rosa multiflora*