Field Guide Assignment

April 4th – Forest Ecology – (3 Pts)

Guiding Question: What is an old growth forest, and how is it different from any other forest with big trees?

- Conifers (in 'Cascade/Olympic Natural History' pages 11–16; but not the section in the box)
- The Keys to Understanding (packet)
- Forest Ecology Notes (packet)
- The Science of Conservation – What is an old growth forest? (packet)

1. What is "succession"? Distinguish between primary and secondary succession.

2. During succession, the physical conditions of the forest change over time (generally speaking, the physical environment becomes less extreme). Other changes also occur. Name three.

3. The article "The Keys to Understanding" describes the seral and climax trees of 4 biogeographic regions: the lower elevation west side forests of OR/WA, the high elevation forests of OR/WA, the forests of the Siskiyou and Klamath mountains and the coastal forests of OR/WA.
   a) for each of the 4 regions, what is the climax tree species?
   b) what is a common seral tree for each region?

4. What is a keystone species? Provide an example of a keystone species and how it is significant in promoting the health of its environment.

5. What is an indicator species? Describe how the spotted owl serves as an indicator species.

6. Describe 3 benefits of snags to forest health.

7. Describe 4 benefits of downed trees to forest health.

8. Describe 3 ways litterfall contributes valuable nutrients to the forest floor.

9. What makes a forest “Old Growth”? 