

Fire Ecology and Behavior

Exam No. 3

May 8, 1981

(5) 1. What kind of habitat do ruff grouse like and why. How is fire related to their habitat?

(5) 2. How do mule deer and elk use timber openings? How long after a fire would you expect to see either of these game species using logged openings?

(5) 3. Describe the optimum habitat of Kirtland's Warbler.

(5) 4. Compare the diets of Fisher and Marten. How can fire enhance or reduce their choices of food?

(5) 5. Where does red and white pine grow? Describe the role of fire in red pine and how the topography aids its survival.

(5) 6. Which of the two species red pine and white pine is (a) most shade tolerant, (b) most disease resistant, and (c) best adapted to sandy soils?

(5) 7. The red and white pine region is bounded on the north by the _____ forest and the south by the _____ forest.

(5) 8. What are the benefits of litter on the soil surface?

(5) 9. What are the disadvantages of litter on the soil surface?

(5) 10. Often grassland soils are lower in free nitrate on burned areas than unburned areas. Why would this be true?

(5) 11. What are hydrophobic soils and how are they created?

(5) 12. What mineral elements are usually volatilized by fire and which are usually kept?

(5) 13. What is a threshold percent plant cover to minimize soil loss on steep slopes?

(5) 14. Why is clearcutting and burning a desirable management practice for Douglas-fir on the West Coast?

(5) 15. What was the frequency of extensive fires on the West Coast in the present seral Douglas-fir zone?

(5) 16. In the northern Rocky Mountains, what is the ecological relationship between Douglas-fir, white pine, aspen, and lodgepole pine?

(5) 17. What major tree species would you expect to find in the mixed conifer zone of the Southwest?

(5) 18. How do management practices of Sitka Spruce differ from Red Spruce?

(5) 19. What are the dominant pine species in the Coastal Plains of Florida and how are they ecologically related?

(5) 20. What are the dominant pines of the Upper Coastal plains and what kind of understory species would you expect to find?

(5) 21. What are the key wildlife species of the Southeast?

(5) 22. How do coastal redwood and giant sequoia differ in size and morphologically?

(5) 23. How does the historical role of fire for coastal redwood and giant sequoia differ?

(5) 24. What is the National Park's policy on natural and prescribed fires?