

Fire Ecology and Management

Exam No. 3

December 2, 1977

- (20) 1. A Senator from the West Coast is in a heated argument with a Senator from the East Coast as to whether clearcutting or selective cutting should be used to harvest spruce trees. The Senator from the West Coast who is familiar with Sitka spruce says that clearcutting is the method to use, and the Senator from the East Coast who is familiar with red spruce says that selective cutting is the method to use. With your vast knowledge on timber management resolve this argument so that these senators depart as friends.

(15) 2. In Wisconsin the National Park Service wants to re-establish red pine (Pinus resinosa) in those areas of the park where it was once a part of the original climax. What kind of guidelines as to the selection of areas and follow-up management guidelines would you give the National Park Service?

(10) 3. How would you manage a piece of land to grow jack pine (Pinus banksiana). Include stages from seeding to final harvest.

- (20) 4. Compare the ecological requirements of longleaf pine, slash pine, loblolly pine, and shortleaf pine.

(10) 5. How can fire be used to manage the canebreaks?

(10) 6. What was the Leopold Report of 1963? How did it come about and what is its significance to us today?

- (15) 7. How would you describe the Boreal Forest? Mention the major tree species and their ecological requirements. Why is this forest so important to Caribou and how does fire affect this use?