

## 1 An Environmental Narrative of Inland Northwest United States Forests, 1800-2000

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**Abstract**

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10 Fire was arguably the most important forest and rangeland disturbance process in the Inland  
11 Northwest United States for millennia. Prior to the Lewis and Clark expedition, fire regimes ranged from  
12 high-severity with return intervals of 1 to 5 centuries, to low-severity with fire-free periods lasting 3 decades  
13 or less. Indoamerican burning contributed to the fire ecology of grasslands and lower and mid-montane dry  
14 forests, especially where ponderosa pine was the dominant overstory species, but the extent of this  
15 contribution is difficult to quantify. Two centuries of settlement, exploitation, management, and climate  
16 variation have transformed the fire regimes, vegetation and fuel patterns, and overall functionality of these  
17 forests. We present a narrative that portrays conditions beginning at the first contact of Euro-American  
18 settlers with Indoamericans of the region and extending to the present. Due in part to its geographic  
19 isolation, the Inland Northwest was among the last regions to be discovered by Euro-Americans. In 200  
20 years the region has undergone fur trapping and trading, sheep, cattle, and horse grazing, timber harvesting,  
21 mining, road construction, native grassland conversion to agricultural production, urban and rural area  
22 development, fire prevention, and fire suppression. We highlight key changes to forest landscape patterns  
23 and processes that occurred under these combined influences, discuss implications of the changes, and  
24 progress towards restoring sustainability. An adaptive ecosystem management model has been adopted by  
25 public land management agencies to remedy current conditions. Ecosystem management is a relatively new  
26 concept that emphasizes the integrity and sustainability of land systems rather than outputs from the land.  
Adaptive management emphasizes the twin notions that incomplete knowledge and high degrees of risk and

1 uncertainty about earth and climate systems will always limit land and resource planning and management  
2 decisions, and that management is chiefly a learning and adapting process. We discuss current issues and  
3 future options associated with ecosystem management, including the low likelihood of social consensus  
4 concerning desired outcomes, the lack of integrated planning, analysis, and decision support tools, and  
5 mismatches between existing land management planning processes, Congressional appropriations, and  
6 complex management and restoration problems.

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8 *Keywords:* Landscape change, human settlement, management history, environmental narrative, Inland  
9 Northwest, fire regimes, vegetation patterns, adaptive ecosystem management.