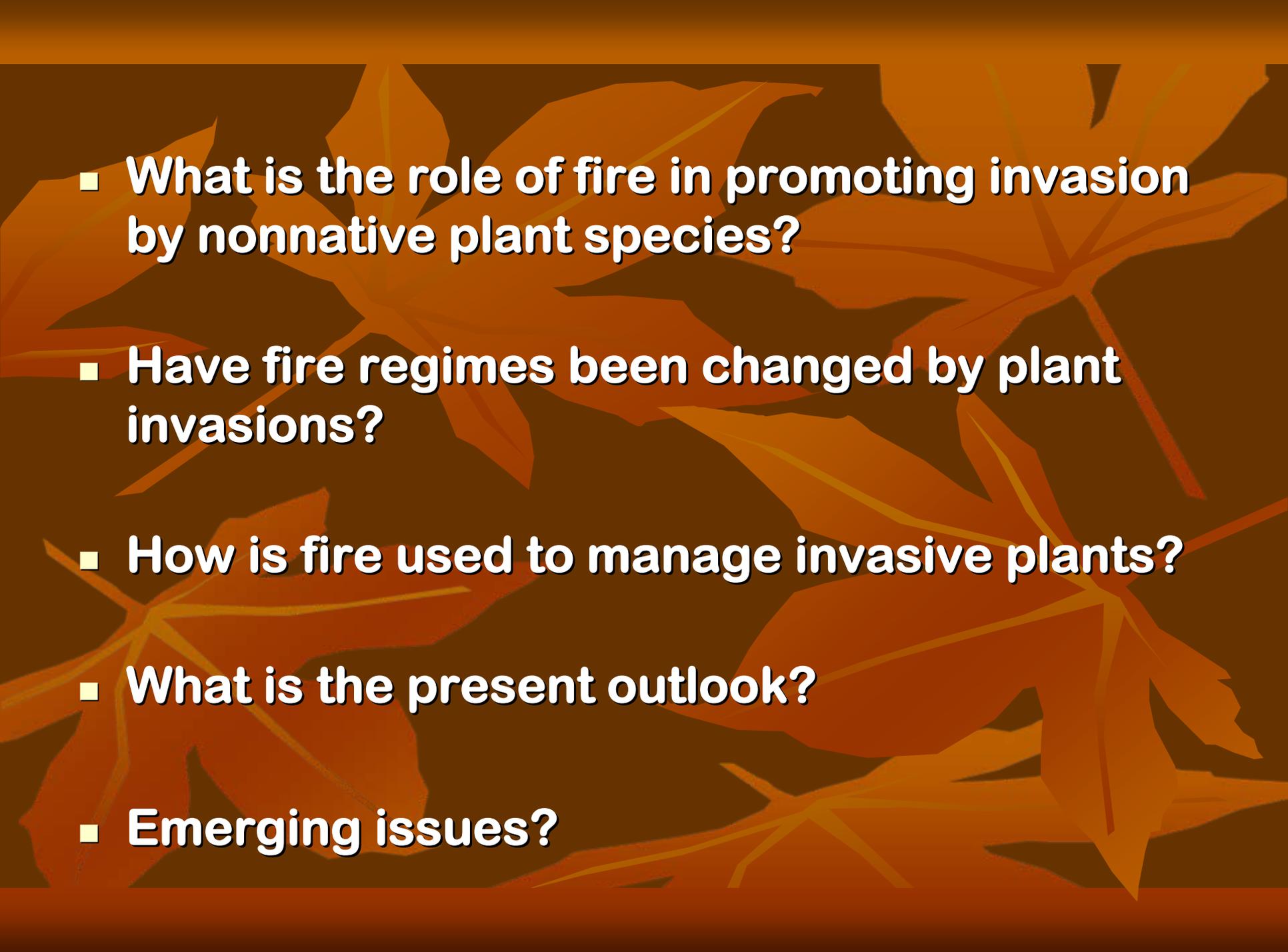
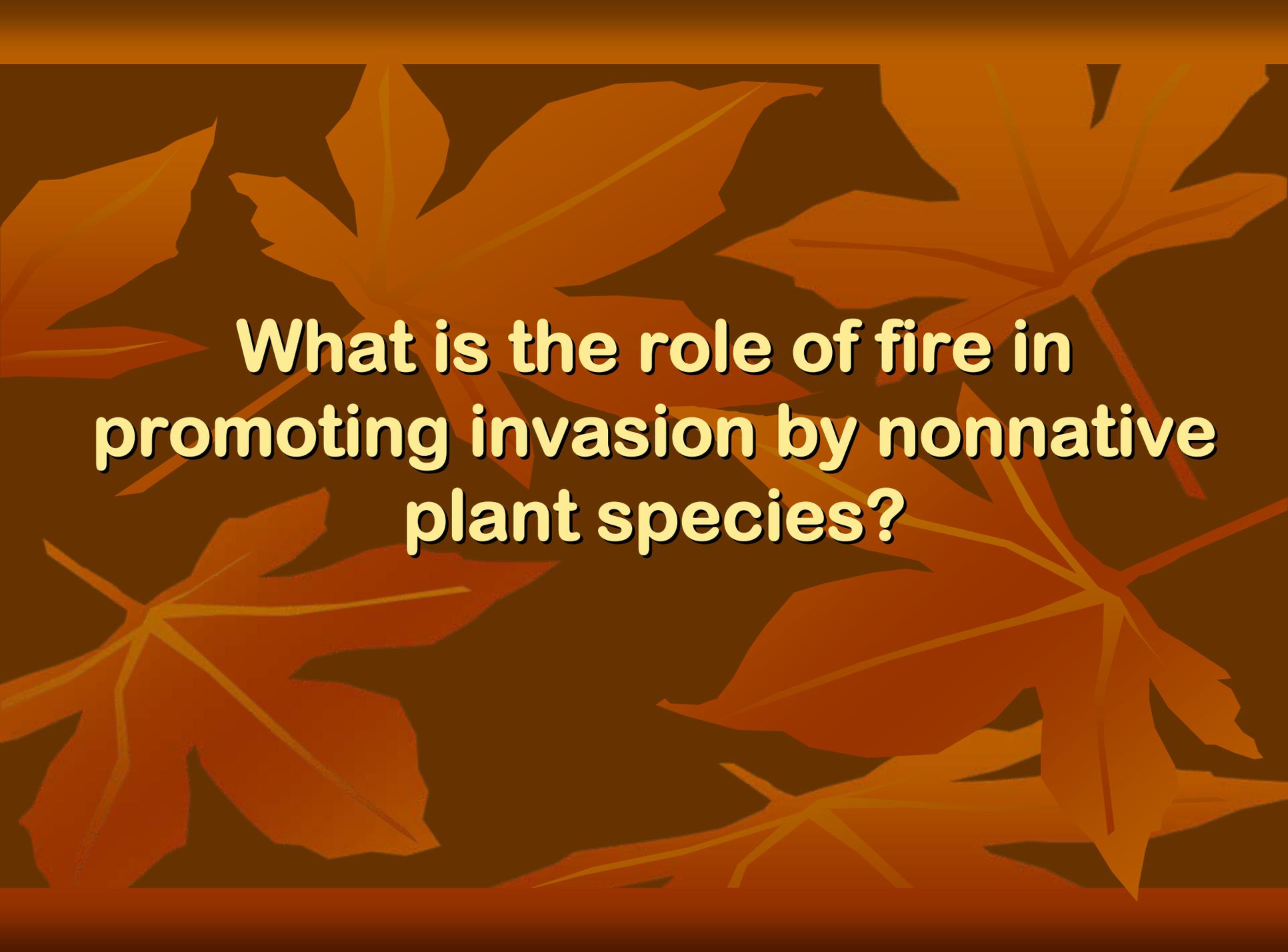




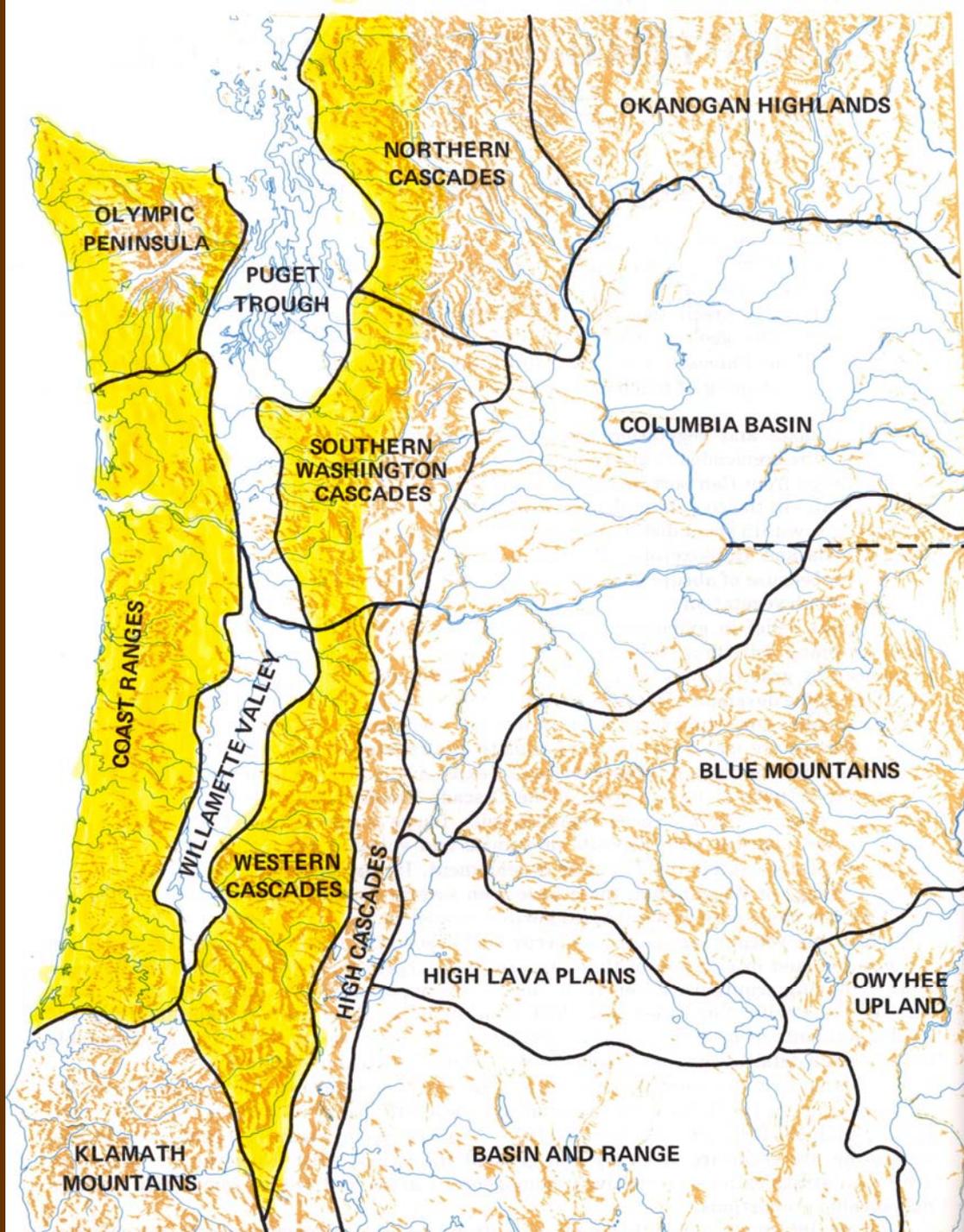
Fire and Nonnative Invasives in the Northwest Coastal Region, including Alaska

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- 
- **What is the role of fire in promoting invasion by nonnative plant species?**
 - **Have fire regimes been changed by plant invasions?**
 - **How is fire used to manage invasive plants?**
 - **What is the present outlook?**
 - **Emerging issues?**



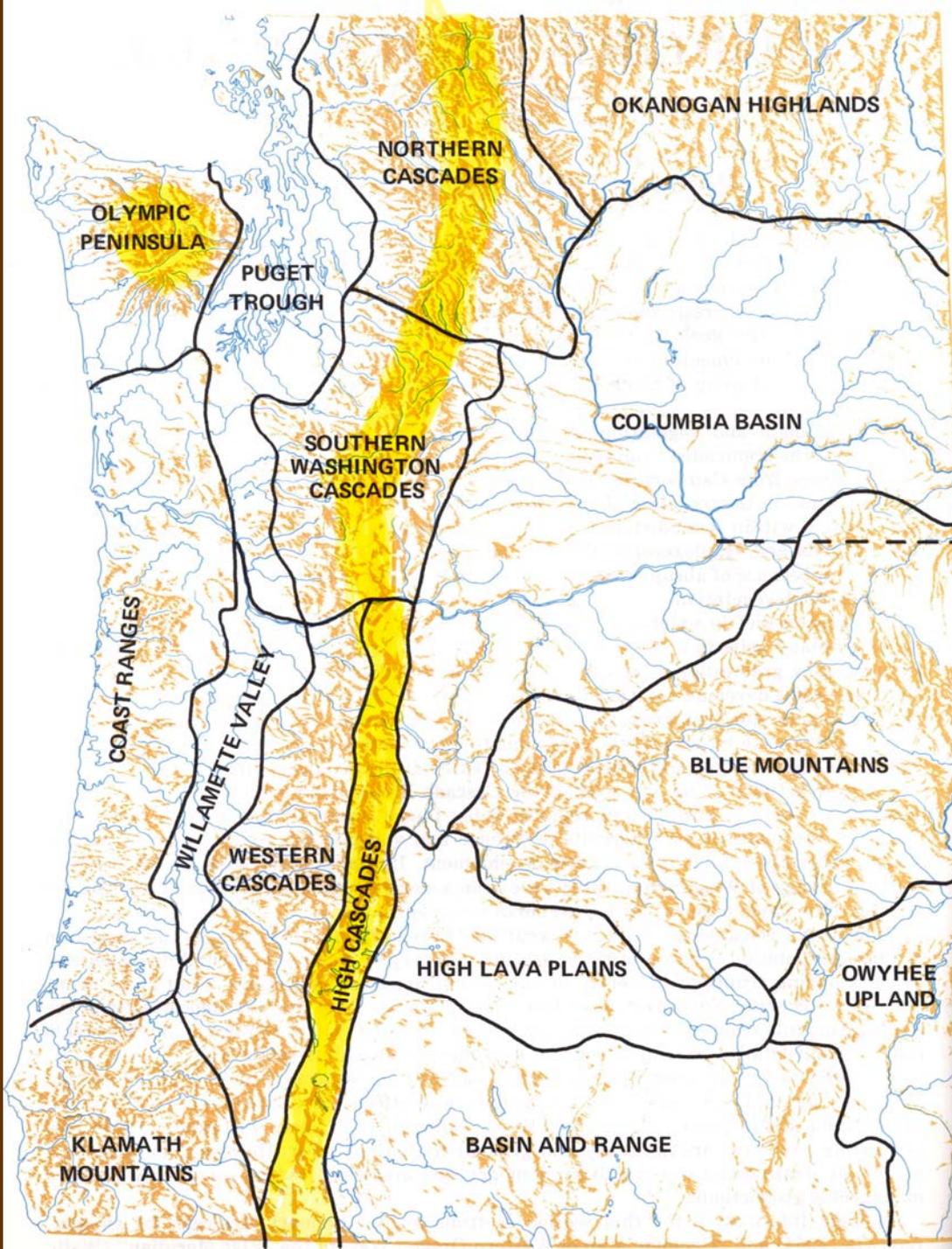
What is the role of fire in promoting invasion by nonnative plant species?



Coastal Douglas-fir Forests



woodland groundsel (*Senecio sylvaticus*)
tansy ragwort (*Senecio jacobaea*)
bull thistle (*Cirsium vulgare*)
Canada thistle (*C. arvense*)
common St. Johnswort (*Hypericum perforatum*)
prickly lettuce (*Lactuca serriola*)
wall-lettuce (*Mycelis muralis*)
scotchbroom (*Cytisus scoparius*)
evergreen blackberry (*R. laciniatus*)
Himalayan blackberry (*Rubus discolor*,
syn. *R. armeniacus*)



Montane Forest and Meadow Communities

OLYMPIC
PENINSULA

PUGET
TROUGH

SOUTHERN
WASHINGTON
CASCADES

COAST RANGES

WILLAMETTE VALLEY

WESTERN
CASCADES

HIGH CASCADES

HIGH LAVA PLAINS

KLAMATH
MOUNTAINS

BASIN AND RANGE

OKANOGAN HIGHLANDS

NORTHERN
CASCADES

COLUMBIA BASIN

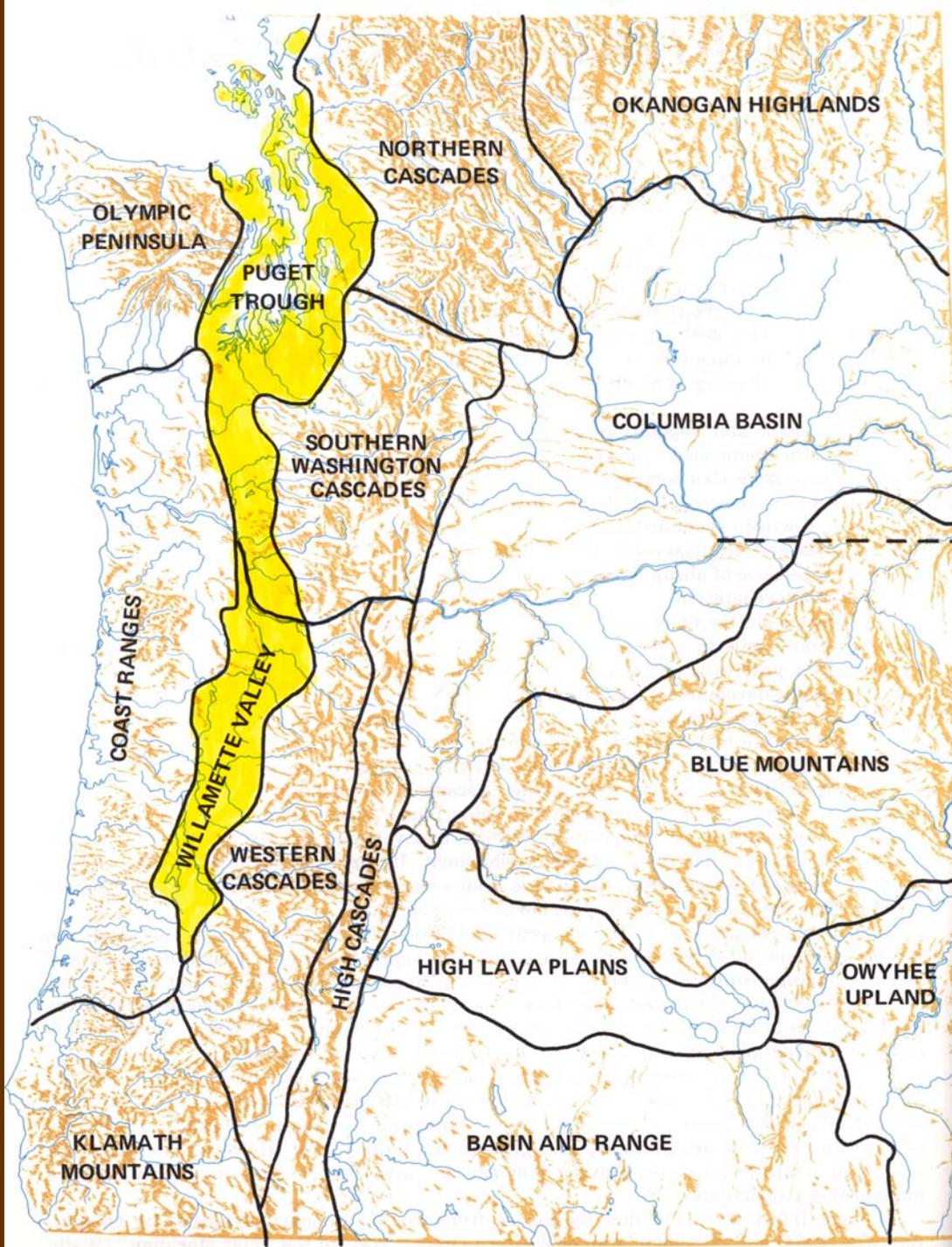
BLUE MOUNTAINS

OWYHEE
UPLAND

Riparian Forests







Oregon White Oak Woodlands and Prairies

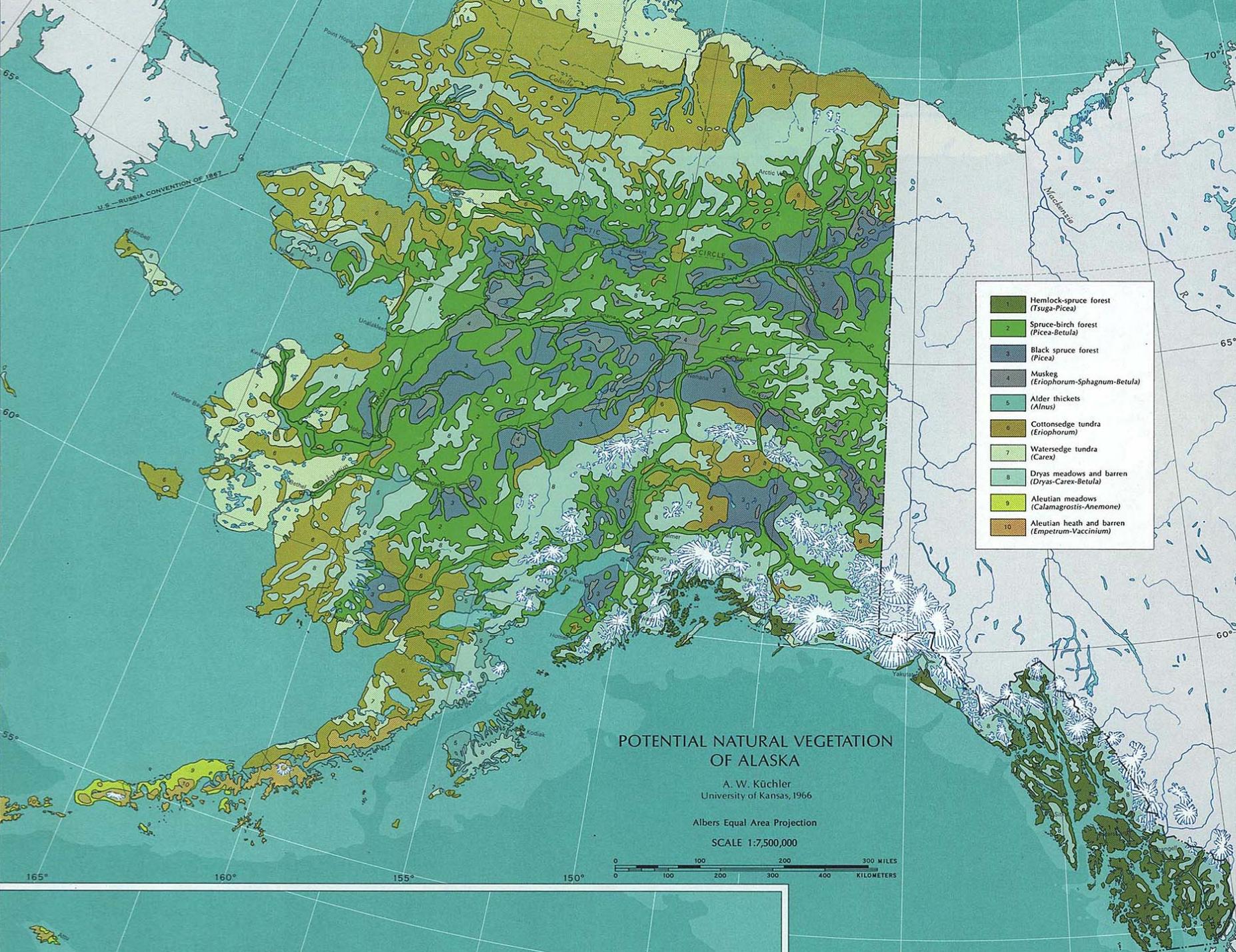


| | |
|-----------------------------|----------------------------------------|
| annual vernalgrass | (<i>Anthoxanthum aristatum</i>) |
| colonial bentgrass | (<i>Agrostis capillaris</i>) |
| little quakinggrass | (<i>Briza minor</i>) |
| garden cornflower | (<i>Centaurea cyanus</i>) |
| common velvetgrass | (<i>Holcus lanatus</i>) |
| common St. Johnswort | (<i>Hypericum perforatum</i>) |
| hairy catsear | (<i>Hypochaeris radicata</i>) |
| heath woodrush | (<i>Luzula congesta</i>) |
| yellow glandweed | (<i>Parentucellia viscosa</i>) |
| Kentucky bluegrass | (<i>Poa pratensis</i>) |
| common sheep sorrel | (<i>Rumex acetosella</i>) |
| tansy ragwort | (<i>Senecio jacobaea</i>) |

common velvetgrass
(*Holcus lanatus*)

| Effect | Direction | Authors |
|----------------------|------------------|--------------------------------------|
| Flowering | - | Clark and Wilson 2001 |
| Cover | - | Schuller 1997, Dunwiddie 2002 |
| Cover | + | Dunwiddie 2002 |
| Frequency | + | Schuller 1997, Pickering 2000 |
| Establishment | + | Agee 1996a, 1996b |





POTENTIAL NATURAL VEGETATION
OF ALASKA

A. W. Küchler
University of Kansas, 1966

Albers Equal Area Projection

SCALE 1:7,500,000

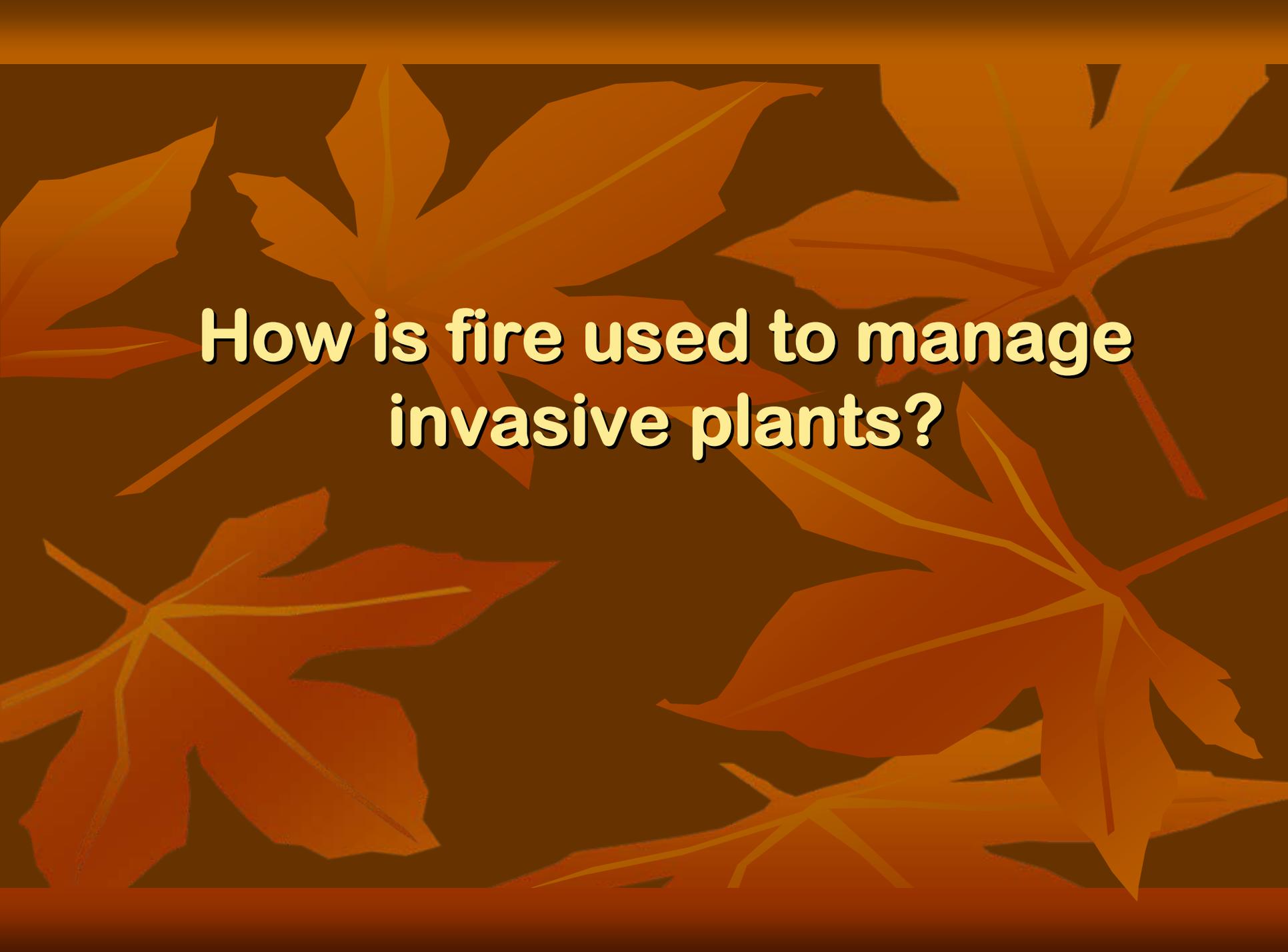


65° 60° 55° 165° 160° 155° 150°

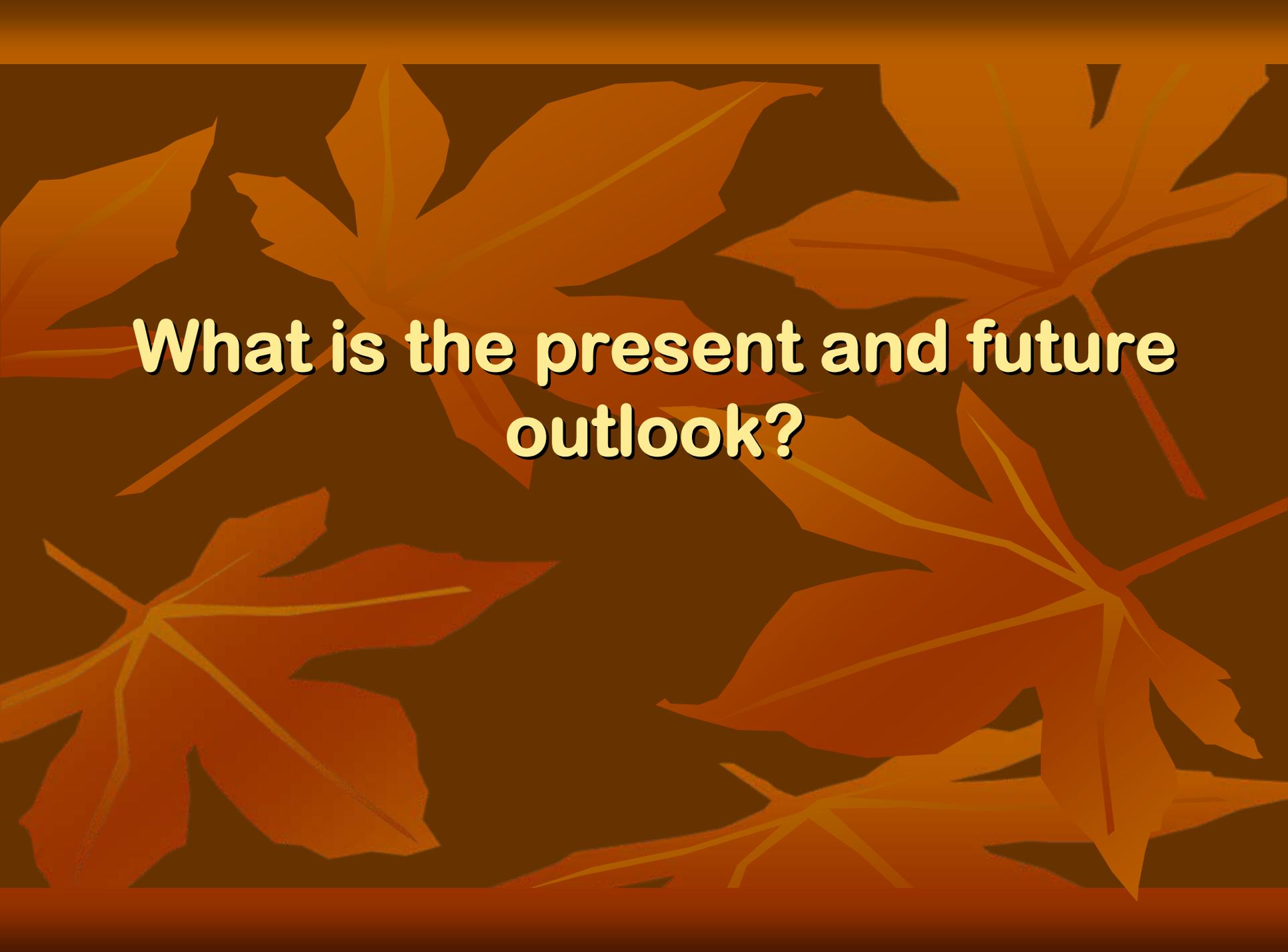


**Have fire regimes been changed
by plant invasions?**





**How is fire used to manage
invasive plants?**



What is the present and future outlook?