



National Park Service
U.S. Department of the Interior

Point Reyes National Seashore
Fire and Fuels Management
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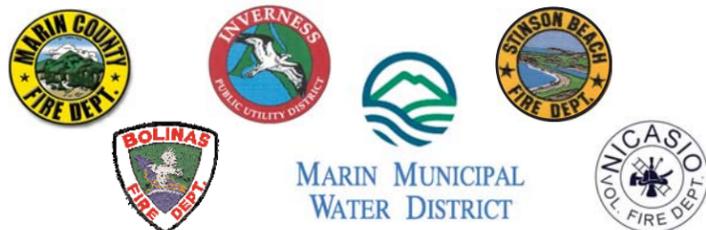
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EXPERIENCE YOUR AMERICA



Cooperative resources, both firefighters and equipment, make the Seashore's prescribed fire program possible. Thank you to the many partners from local, state, and federal agencies who help the park reduce hazardous fuels and provide other ecosystem benefits.



For More Information

Please call (415) 464-5133 if you have questions or comments about the Seashore's prescribed fire program.

Contact: Jennifer Chapman
Fire Education, Prevention, and Information Specialist

E-mail Updates

If you would like to receive e-mail updates when burn days have been confirmed, please send your e-mail address to: Jennifer_Chapman@nps.gov

Point Reyes National Seashore Fire Management Web Pages

Information about prescribed burns, mechanical fuel treatments, and fire ecology at Point Reyes can be found at:

www.nps.gov/pore/fire

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2004 Prescribed Burns

- Minimum Management Unit Drakes Beach - 70 acres
- Estero FMU McDonald Ranch - 65 acres
- Limantour Road FMU Limantour - 30 acres

The new Fire Management Units (FMUs) at Point Reyes are described under Fire & Fuels Planning at www.nps.gov/pore/fire.

Using Fire to Manage Park Resources



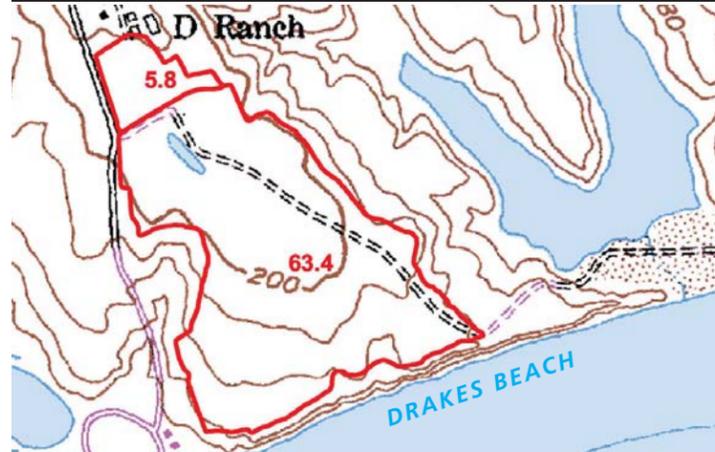
A history of agricultural practices has changed the composition of the grasslands throughout Point Reyes. Only small remnants of native coastal prairie can be found anywhere in California today. Prescribed fire will be used to prepare an area near Drakes Beach for seeding with native grass.

SEE INSIDE

Wildland fire is both a natural process, and a resource management tool, which has been used by humans for thousands of years. But, when fire threatens life or property, suppression action must be taken. Fire management units, recently defined at Point Reyes National Seashore, describe how fire will be managed to accomplish both resource and community protection objectives. In the coming weeks, if weather conditions allow, prescribed fire will be used at Drakes Beach to enhance habitat for native species; in the Estero to reduce the population of non-native Scotch broom; and along Limantour Road to create a strategic fuel break.

WHEN VEGETATION COMPOSITION, STRUCTURE, AND DIVERSITY have been significantly altered, fire may need to be combined with other kinds of treatments to restore ecosystem health. Non-native Scotch broom in the Estero burn units is first mowed to increase burning temperatures and produce greater broom mortality. The Drakes Beach Burn Unit will be seeded with a resilient native grass after burning to enhance the recovery of the site.

Prescribed Fire at Drakes Beach



These violets are thriving in an area which has been less altered by introduced species. A dense overgrowth of non-native grasses and accumulated dead plant litter can shade out and suffocate the violets which Myrtle's silverspot butterflies depend on.



The Myrtle's silverspot butterfly, *Speyeria zerene myrtilae*, is an endangered species, thought to have once inhabited coastal areas from Fort Ross to Ano Nuevo. By the 1970's, all populations south of the Golden Gate Bridge were presumed extinct. Point Reyes is one of the last places these butterflies are found. They lay their eggs near the leaves and stems of violets which grow in coastal grasslands. Long term monitoring will help determine whether or not prescribed fire can help improve the butterfly's habitat.

The Drakes Beach burn unit is located within D-Ranch. Non-native grasses introduced here for cattle forage and others accidentally imported with livestock feed, have significantly altered the ecosystem. The west side of Horseshoe Pond was changed more dramatically than the east side, because it was more accessible for agriculture, and likely fertilized with manure many times in the past, resulting in increased levels of soil nitrogen. This high level of nitrogen gives non-native species an advantage of over native species. The site also has a dense build up of dead grass, creating a thick mulch which many seedlings cannot penetrate. Fire will be used to reduce fuel in order to improve habitat for native species. The burn unit will require either mechanical pre-treatment to air out the matted grass or multiple burn treatments.

Burn Unit: Drakes Beach - 70 acres

Objectives: Reduce density of non-native grasses and mulch to prepare site for seeding with native grass.

Vegetation: Annual grassland dominated by non-native Italian ryegrass and Mediterranean barley.

Project Highlights: After burning, the site will be seeded with native California brome. This species has survived, despite heavy fertilization. Fire converts solid forms of nitrogen in plants and soil into an atmospheric form. Decreased nitrogen and fuel density may allow native plants to compete better with non-native species. Red fescue and other native species may benefit after the site has burned. Vegetation plots will be read before and after burning to determine the effects of fire on the site.



NIPS MUSEUM SPECIMEN

Italian ryegrass
Lolium multiflorum

A non-native annual grass, widely planted for livestock forage in coastal areas of the west. This grass quickly colonizes disturbed areas and is often used for erosion control.



NIPS MUSEUM SPECIMEN

Mediterranean barley
Hordeum murinum

A non-native annual grass and invasive weed with little forage value. This grass was accidentally introduced from Europe and is considered undesirable by ranchers and ecologists alike.



NIPS MUSEUM SPECIMEN

California brome
Bromus carinatus

A native perennial grass which is widespread throughout the Seashore. Several pounds of seed were collected near Drakes Beach and sent to a grower who is multiplying the seed for use after burning.



LORENCE G. COLLINS

Red fescue
Festuca rubra

A native perennial grass that is present at Drakes Beach. Burning may help increase the cover of this and other native species that are currently established at the site.

Other burns scheduled for 2004



Estero

Burn Unit: McDonald - 65 acres

Objective: Reduce the population of non-native Scotch broom.

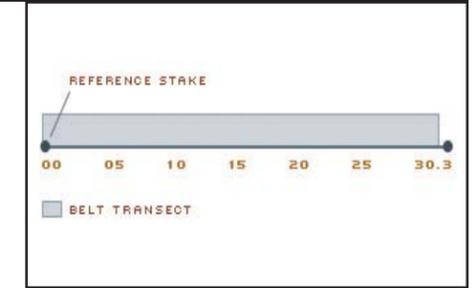
Vegetation: Annual grassland with coastal scrub, dominated by coyote brush on slopes and ravines. Patches of iris, rush, blackberry, and Scotch broom throughout. **Project Highlights:** A combined treatment of mowing and burning is proving effective at reducing Scotch broom. Fire effects monitoring data suggests broom has been reduced by 85%.



Limantour Road

Burn Unit: Limantour - 30 acres

Objectives: Create a strategic fuel break. **Vegetation:** Coastal scrub dominated by coyote brush, poison oak, and blackberry. **Project Highlights:** Limantour Road is a busy traffic corridor where the chance of vehicle-related ignition is high. Limantour Beach also has high potential for escaped beach fires. If a major wildfire occurs, Limantour Road will play a key role in firefighting tactics by providing staging areas and anchor points for burnouts.



Monitoring

VEGETATION PLOTS ARE ESTABLISHED in each burn unit to determine whether or not objectives are being achieved. Fire effects monitors record what species are found before and after burning and in what density they occur. They also set up plots in areas that are not burned for comparison. Data is collected pre-burn, post-burn, and 1, 2, 5, and 10 years after burning. This allows managers to determine whether or not native species are increasing and non-native species are decreasing, as well as, whether or not overall diversity of species is changing.



P R E S C R I B E D F I R E O P E R A T I O N S

Prescribed burns at Point Reyes are systematically hand-ignited on the ground using a drip torch. In more remote areas, ignition may be done from a helicopter using other devices. A drip torch uses a mixture of diesel fuel and gasoline. The **Ignition Specialist** supervises all ignition during a prescribed burn, while the **Burn Boss**, coordinates and directs all of the operations. The **Holding Division** is a group firefighters on the perimeter who make sure the fire is within control lines; and the **Fire Effects Monitors** record weather, fire behavior, and smoke observations.

Suppressing Unwanted Fire at Point Reyes

Suppression actions are initiated for all unplanned wildland fires at Point Reyes as soon as they are discovered. Two significant fires have occurred this summer. These fires were not prescribed.

Mesa Fire - June 3, 2004

Cause: downed powerlines
Location: South of Palomarin parking lot
Vegetation: Grassland near eucalyptus groves
Outcome: 100% contained at 1/10th of an acre
Resources: 3 engines, 8 firefighters, 1 water tender, 1 S-2 airtanker (cancelled)
Partners: Bolinas Fire Protection District, Marin County Fire Department, Stinson Beach Volunteer Fire Department

Olema Fire - June 16, 2004

Cause: downed powerlines
Location: Bolinas Ridge
Vegetation: Mixed brush
Outcome: 100% contained at 4 acres
Resources: 4 engines, 1 water tender, 1 dozer (not used), 2 airtankers (cancelled), 1 helicopter (cancelled)
Partners: Marin County Fire Department, California Department of Forestry and Fire Protection, Inverness Volunteer Fire Department