

November 11, 2002

Mr. William A. Freeland
Planning and Compliance Coordinator
Olympic National Park
600 East Park Avenue
Port Angeles, WA 98632

Re: Olympic National Park Fire Management Plan Environmental Assessment

Dear Mr. Freeland:

These comments specifically address one discrete aspect of the Olympic National Park Fire Management Plan Environmental Assessment: the short- and long-term management of the coastal prairies and their associated insect and plant communities.

We understand that fire management can be important to natural and semi-natural landscapes. Fire is a natural, evolutionary force that has fundamentally shaped the structure and composition of Washington's forests. Fire suppression during the past century has greatly increased the risk of catastrophic, stand-replacing fires, while eliminating the ecological benefits of more frequent, low intensity fires. As a result, live and dead fuels in western forests are generally more abundant and continuous than in the past. These conditions are unnatural and pose a threat to the ecological health and integrity of the forests.

We believe that prescribed fire is necessary to reduce the risk of stand-replacing, catastrophic wildfire. But in all burn projects, consideration must be given to the full range of potentially affected resources, including effects on soils, hydrology, air quality, reduction in canopy closure, changes in stand structure, loss of down logs and snags, likely effects on plant and animal species, and other ecosystem values.

We are most concerned with one component of your fire plan where prescribed fire would be used at Ahlstrom's Prairie, Roose's Prairie, Higley Homestead, and Smith Place.

The Ahlstrom's Prairie and Roose's Prairie bog complex are the only known locale for two rare butterflies. The Ozette's skipper, an as yet unnamed subspecies of the woodland skipper (*Ochlodes sylvanoides*) has been recently identified by Dr. Robert Pyle at this site. It is also one of four known sites for another recently discovered butterfly the Makah copper a distinctive morphotype of the mariposa copper butterfly (*Lycaena mariposa*).

The Makah copper feeds on bog cranberry (*Vaccinium oxycoccos*) as a larva and nectars chiefly on the state-sensitive Douglas gentian (*Gentiana douglasiana*); the Ozette's skipper feeds as a caterpillar on one of several possible native grasses. The abundance and structure of these host and nectar plants are essential for the survival of the butterflies.

The Roose and Ahlstrom prairies where these butterflies reside consist of post-glacial sphagnum bogs and heaths. We realize that the reduction of biomass on the prairies will be necessary to

prevent the loss of the bog communities to forest succession. According to Dr. Pyle western hemlocks have claimed much of the open habitat since the coppers were first found in 1975. However, we are concerned that prescribed fire could have a deleterious effect on these butterfly species.

Small, isolated populations of sedentary insects (including Lepidoptera) are likely vulnerable to fire (Schultz and Crone, 1998; Dana, 1991; Warren et al., 1987) and fire may be a less favorable technique in general for managing occupied butterfly habitat (Swengel, 1996). Although prairies evolved with fire, fuel loads may be significantly greater now than they were historically, resulting in more intense and larger fires that can kill butterfly eggs, larvae, pupae, or adults (Dana, 1991). That said management approaches are being developed and are currently being tested to utilize fire for maintenance and restoration of grasslands, while minimizing impacts to butterfly populations (Schultz and Crone, 1998; Pickering, 1997, Panzer 2002).

The indirect effects of prescribed fire in the bogs and uplands can also have a negative impact on butterfly populations. Fire line construction and application of foam could be deleterious to the butterflies directly and could also impact the hydrology and water chemistry at these sites. Mechanical treatment can also have a negative impact on these butterflies. Mechanical treatment adjacent to these prairie and bog sites could degrade habitat and kill individual butterflies as a result of equipment use, people trampling meadows, piling of log slash, and burning of log piles in meadow habitat.

Due to the considerations listed above we urge revision of the EA to recognize the dangers inherent in burning the prairies in the northwestern part of the park. We believe that these and other remnant bogs, grasslands, and heaths should be excluded from burn plans until we know more about the life histories and habitat needs of these endemic butterflies.

We believe the park should undertake a study to determine what course of action would best protect the valuable resources at these sites. Specific management plans should be developed to selectively and carefully remove some woody plant species through mechanical means and use prescribed fire if after study it is deemed compatible to the localized community. Fire and mechanical treatment both can pose hazards to endemic butterflies. These hazards need to be taken into account when developing a site management plan. Furthermore if this is a true bog complex fire should not be needed to maintain this plant community. If hemlocks are encroaching significantly there may be changes to the sites hydrology and or nutrient influx that need to be investigated.

Thank you for considering my comments.

Sincerely,

Scott Hoffman Black
Executive Director

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Panzer, R. 2002. Compatibility of prescribed burning with the conservation of insects in small isolated prairie reserves. Conservation Biology 16 (5): 1296-1307.

Pickering, D. L. 1997. The influence of fire on west coast grasslands and concerns about its use as a management tool. A case study of the Oregon silverspot butterfly *Speyeria zerene hippolyta* (Lepidoptera, Nymphalidae) Pages 37-46 *In* Proceedings of fire effects on rare and endangered species and habitats conference in Coeur d'Alene, Idaho. 1995. IAWF

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Warren, S. D., C. J. Scifres, and P. D. Teel. 1987. Response of grassland arthropods to burning: a review. *Agriculture, Ecosystems and Environment* 19:105-130.