Conference Program

The Restoration Toolbox

Society for Ecological Restoration
Northwest Chapter

Pacific Northwest Chapter of the
Society of Wetland Scientists

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ment of Oregon Wetland and Riparian Sites, Volume I. Willamette Valley Ecoregion. Of the twenty-seven identified mitigation sites thirteen were classified as Slope/Flat, thirteen as Riverine-Impounded, and one as Riverine-Flow-Through. The HGM assessment results are used to identify and prioritize possible restoration and enhancement projects. Also, with an HGM assessment completed prior to any further restoration efforts these results can be used to measure progress toward restoration goals or used to measure site maturity over time. The HGM results aid in determining site-specific recommendations, as well as, a watershed-scale summary of wetland compensatory mitigation efforts within the Columbia Slough.

P16 Using Novel Statistical Methods to Predict the Historic Range of Aspens in The Western Blue Mountains, Oregon

Stacy Schumacher, Confederated Tribes of the Umatilla Indian Reservation
Scott O'Daniel, Confederated Tribes of the Umatilla Indian Reservation and the University of California - Santa Barbara

Aspen are a culturally important plant species for the Umatilla Tribes in Northeastern Oregon, and are experiencing significant decline in the western North America. This ongoing project seeks to identify and predict the potential/historic range the small, isolated, upland wetlands and endemic aspens in the western Blue Mountains, Oregon. Combining several spatial (creating and combining topographically derived indices from digital elevation models data) and statistical techniques (classification trees, fuzzy logic and Principal components analysis), we defined a method to predict potential aspen distribution. Classification trees and fuzzy logic techniques were used to identify four groupings in the data. Finally, principle components analysis was used to explain the relationship between the topographical derived indicesand the aspen locations. This work provides a context for the scope and

techniques to advance aspen restoration in the Blue Mountains of Oregon.

P17 Stream Restoration Monitoring: A Comparison of Invertebrate Abundance and Availability of Wood and Benthic Substrata in the Pacific Northwest

Jennifer S. O'Neal, Foster Wheeler Environmental Corporation

In the Pacific Northwest, the presence of wood in streams has been identified as an important factor in the formation and maintenance of productive and healthy freshwater systems. This study compares invertebrate production on wood and benthic substrates from Griffin Creek, Washington. A new method for collecting invertebrates from log surfaces was developed that circumvents the need to remove sections of wood from the stream. The method involves the use of existing tools to effectively remove invertebrates without damage to the samples, or the wood structures. The comparison of invertebrate abundance from wood and benthic substrates shows a higher level of production on the wood surfaces. An evaluation of the relative production of available food resources for salmonids using a multi-metric index also showed that wood substrates were more productive from the perspective of available invertebrate food resources for fish. Further use of this original invertebrate sampling method for log surfaces in other systems in the Pacific Northwest could be useful to more thoroughly compare the relative levels of invertebrate production on benthic and wood substrates.

P18 Stereo Photo Series for Quantifying Natural Fuels in the Americas

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Photo series are useful tools for quickly and inexpensively evaluating vegetation and fuel conditions in the field. The natural fuels photo series is a collection of data and photographs that collectively display a range of natural conditions and fuel loadings in a wide variety of ecosystem types throughout the Americas from central Alaska to central Brazil. Fire managers are the primary target audience of the natural fuels photo series, although the data presented will also prove useful for scientists and managers in other natural resource fields. Phase I included 18 ecosystem types in the United States organized geographically into six volumes. Phases II and III will add volumes for ecosystem types in Hawaii (grassland, shrubland, woodland, and forest) and the northeastern United States (pitch pine, balsam fir/red spruce, and mixed hardwoods), as well as other types not included in Phase I (e.g., mixed-conifer with shrub and deciduous oak savanna in the western United States). Ongoing and future work will supplement already published volumes with new series in new ecosystems or additional sites in already published series. Additionally a volume has also been produced for savannah (cerrado) ecosystem types in central Brazil and a volume is under development for pine forests in Mexico. Ten ecosystem types have been photographed and inventoried to date with publication anticipated in the next two years.

P21 The effect of time since burning on a terrestrial, wet prarie, mollusk community in western Oregon

Paul M. Severns, U.S. Army Corps of Engineers

Wet prairie consists of numerous plant species that are listed as endangered, threatened, or species of concern.Management of the wet prairie habitat often relies on disturbance regimes to reduce the above ground