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**Do Airborne Contaminants Affect Fish in the Lakes of Western U.S. National Parks?** A.R. Schwindt<sup>\*</sup>, Schreck, C.<sup>a</sup>, Landers, D.<sup>b</sup>, Ackerman, L.<sup>c</sup>, Usenko, S.<sup>c</sup>, Ramsay, J.M.<sup>a</sup>, Simonich, S.<sup>c,d</sup>, Kent, M.<sup>e</sup>, <sup>a</sup>Department of Fisheries and Wildlife, <sup>b</sup>U.S. Environmental Protection Agency, Corvallis, OR 97333, <sup>c</sup>Department of Chemistry, <sup>d</sup>Department of Environmental and Molecular Toxicology, <sup>e</sup>Department of Microbiology, Oregon State University, Corvallis, OR; <sup>\*</sup>Oregon State University, Department of Microbiology, Nash 220, Corvallis, OR 97331-3804; 541-737-1889.

Researchers have detected airborne contaminants in snow, lake sediment and water, and fish in alpine aquatic ecosystems in Canada and Europe. However, little information exists for similar occurrence in alpine areas of the U.S. despite the suspected preferential deposition of some airborne contaminants in high-elevation ecosystems. Therefore a multidisciplinary study, called the Western Airborne Contaminants Assessment Project, was initiated to assess the levels and potential effects of contaminants in alpine aquatic ecosystems in eight western U.S. national parks. To determine if airborne contaminants adversely affect alpine aquatic ecosystems, salmonid fishes were captured in the summer of 2003, from five total lakes in Sequoia, Rocky Mountain, and Olympic National Parks to be analyzed for contaminants, health, and reproductive potential. Contaminants were found in lake waters and the fish contaminant analysis method will be described. Upon capture, each fish was examined macroscopically for pathology with nothing unusual noted. As indicated by otolith examination, fish age distribution ranged from one to ten years which will assess if the contaminants accumulate in older fish. Condition factor and length-weight relationships indicate some between lake differences. Sex steroids, plasma vitellogenin, and histopathological examination of the tissues levels will be discussed.