



DELTA STEWARDSHIP COUNCIL



**Delta Science Program, Ecosystem Restoration Program and Surface Water Ambient Monitoring Program Joint Brown Bag Series Presents**

## **From Subduction to Salmon: Geologic Subsidies Drive High Productivity of a Spring-fed River**

Randy Dahlgren, Ph.D.  
Department of Land, Air and Water Resources  
University of California, Davis

**Monday, May 13, 2013, 12:00 – 1:00 p.m.**

**Location: Cal/EPA Building, Coastal Hearing Room, 2<sup>nd</sup> Floor,  
1001 "I" Street, Sacramento CA 95814**



Critical habitats necessary to support cold-water species in riverine ecosystems are anticipated to diminish as global climate change reduces summertime availability of cold water in streams. Volcanic spring-fed streams may prove an exception to this habitat loss, as large aquifers (underground water supplies) continue to produce reliable streamflow for sustaining cold-water species such as salmon. These spring-fed systems provide consistent cold-water streamflow and ecologically significant nitrogen and phosphorus inputs from geologic sources.

Dr. Dahlgren will present his findings which indicate that by taking advantage of abundant food and stable year-round streamflow and water temperature regimes, salmonids can grow at unusually high rates—more than double the rates found in adjacent non-spring-fed streams.

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