

Western Ecological Research Center <http://www.werc.usgs.gov>

Redwood Field Station

Northwestern California is home to the coast redwood, the world's tallest tree, which can reach a height of more than 365 feet. Virgin redwood forests once covered 2,000,000 acres, from Monterey to southern Oregon. Today, less than 90,000 acres remain uncut, and half of all old-growth redwood forests are protected within Redwood National and State Parks and the Headwaters Forest. Past timber harvest and road construction on steep hillslopes on surrounding lands have caused forest fragmentation and accelerated erosion, contributing to destruction of fish spawning and rearing habitat, loss of streamside shade, and increased stream temperatures.

The Redwood Field Station is located in coastal Northern California, and most research is conducted in redwood-dominated watersheds. The lead scientist and staff conduct research on issues related to timber harvest, effects of past watershed disturbances, watershed restoration, and recovery of disturbed ecosystems. The study results are applicable to restoration efforts in disturbed landscapes throughout the Pacific Northwest. The field station provides technical assistance to the National Park Service, U.S. Fish and Wildlife Service, Bureau of Land Management, and other client agencies on developing inventory and monitoring plans, hillslope and channel stability assessments, and other issues.

The Redwood Field Station is currently involved in studies concerning restoration of the physical landscapes in northwestern California, and the biological interactions with restoration efforts. The studies include assessing the effects of suspended sediment on aquatic organisms; modeling stream temperature in large watersheds; evaluating the effectiveness of various strategies for watershed restoration; conducting watershed-scale sediment risk assessments, quantifying stream recovery following watershed restoration; and determining the influence of timber harvest and floods on riparian areas.



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Lead Scientist

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- Geomorphology
- Watershed restoration
- Erosion/sediment transport
- Ecological monitoring
- Riparian ecology
- Disturbance ecology

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