

Wind River Experimental Forest and Canopy Crane Research Facility

Domain name: PNW NEON – Domain 16

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<http://depts.wash.edu/wrccrf/>

Location: Lat 45.833 N, Long - 121.9

Ecological Themes: Climate; land use (land cover change and urban/wildland gradient); biodiversity and invasives (plant, animal); disturbance (fire, wind, volcano), Aquatic (stream, wetlands).

Site History and

Characteristics: Wind River

Experimental Forest (WREF) totals

4280 ha and covers ~1000 m of elevation (330 to 1300 m) in the Wind River drainage of southern Washington Cascade Range. Trout Creek Division includes extensive old-growth (500-year) forests on a shield volcano with moderate (fluxable) topography and deep, stone-free (tephra) soils. The remainder of the WREF is moderately steep mountainous topography covered primarily by mature (1902 and 1845) forests. Federal land managed by the USDA Forest Service' Gifford Pinchot National Forest and Pacific Northwest Research Station for research and educational purposes. Research initiated at Wind River Experimental Forest in 1908 and canopy crane research facility established in 1995. Permanent plots and experiments dating to 1910. Canopy crane facility (85-m tower accessing ~2 ha of canopy) established in 1995. Ameriflux site in its 10th year of continuous measurement; only long-term record of net carbon flux in PNW Domain.

Gradients and Themes. WREF is broadly representative of the mountainous topography, mild Mediterranean climate, and tall coniferous forests of the PNW domain; it is near the geographic and environmental center of the highly heterogeneous PNW Domain. Previous research and established facilities, particularly the canopy crane, provide a substantial base for a national ecological research program. Intensive research on carbon and water cycles make it highly relevant to **climate change** theme. Location 75 km east of center of Portland OR/Vancouver WA metropolitan area make it well suited as wildland endpoint in **land use** or urbanizing gradient. Extensive and diverse areas for national ecological observatory **experimental reserves** available including large field (with irrigation system), gaugeable watersheds, and forests of diverse ages and conditions.

Existing facilities. Significant existing facilities for office, laboratory, shop, and storage use, including some already utilized by existing research programs and others that potentially can be acquired by national ecological research organizations. Good road access to sites, utilities to field location at crane site.

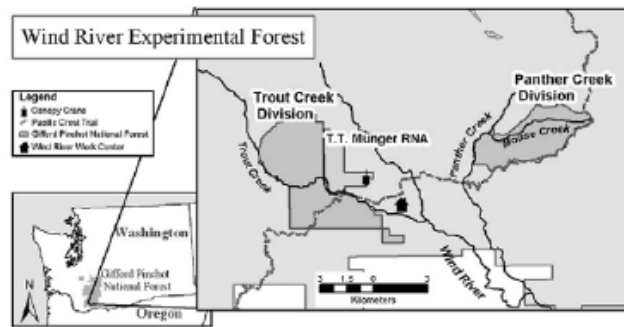


Fig. 2. Map of the Wind River Experimental Forest, including the T. T. Munger RNA and WRCCRF, located in southwestern Washington State.