



LAVO

## LAVO1

Sunflower Flat

**Location:** 40.56N 121.53W  
**Elevation:** 1829 m  
**Ave. Ann. Temp:** 7.4°C  
**Ave. Ann. Precip:** 123 cm  
**Air Sampler:** No  
**Conifer:** *Abies concolor*  
**Lichen:** *Letharia vulpina*



## LAVO2

Chaos Crags Trail 2.4 km

**Location:** 40.53N 121.53W  
**Elevation:** 2012 m  
**Ave. Ann. Temp:** 6.6°C  
**Ave. Ann. Precip:** 168 cm  
**Air Sampler:** No  
**Conifer:** *Abies concolor*  
**Lichen:** *Letharia vulpina*



## LAVO3

Ridge Lake Basin

**Location:** 40.46N 121.54W  
**Elevation:** 2271 m  
**Ave. Ann. Temp:** 4.1°C  
**Ave. Ann. Precip:** 267 cm  
**Air Sampler:** No  
**Conifer:** *Abies magnifica*  
**Lichen:** *Letharia columbiana*



## LAVO4

Broke-off Top Mtn Trail 3.2 km

**Location:** 40.44N 121.56W  
**Elevation:** 2499 m  
**Ave. Ann. Temp:** 4.8°C  
**Ave. Ann. Precip:** 235 cm  
**Air Sampler:** No  
**Conifer:** *Abies magnifica*  
**Lichen:** *Letharia vulpina*



## LAVO5

Broke-off Top Mtn summit

**Location:** 40.45N 121.57W  
**Elevation:** 2713 m  
**Ave. Ann. Temp:** 4.8°C  
**Ave. Ann. Precip:** 235 cm  
**Air Sampler:** Yes  
**Conifer:** *Abies magnifica*  
**Lichen:** *Letharia vulpina*



## Vegetation Summary

- The same genera (wolf-lichen and true fir) were collected at all sites.
- SOC concentrations in LAVO vegetation were close to, above, or well above the median for the WACAP parks.
- The dominant SOCs were PAHs (90-3300 ng/g lipid), endosulfans (90-180), dacthal (40-110), DDTs (2-65), and HCB (10-24). Proportions of PAHs were similar to those in southern Oregon and other California parks.
- Low concentrations of chlorpyrifos (<3 ng/g lipid), a-HCH (2-15), g-HCH (2-8), chlordanes (5-14), dieldrin (1-6), and PCBs (1-5) were also detected.
- Increases in endosulfans, chlorpyrifos, and dacthal, and decreases in PAH concentrations in lichens were observed with increasing elevation.
- Lichen nitrogen concentrations were within background ranges, indicating that nitrogen deposition is not elevated.

## Air Summary

- Air was sampled at LAVO5.
- Compared with other WACAP parks, concentrations of all SOCs detected were above the median [CUPS trifluralin (5 ng/g dry XAD), dacthal (380), and endosulfans (363), and HUPs HCB (840), a-HCH (150), g-HCH (30), and chlordanes (34), and PAHs (77)].

