

# BioBlitz 2014

## Muir Woods National Monument



*Save The Redwoods*  
FOUNDATION



Stephen Sillett and Marie Antoine climb and measure a coast redwood at Muir Woods. Photo credit: Tonatiuh Trejo-Cantwell.

On March 28-29, 2014, as part of the National Park Service BioBlitz, a research team from Humboldt State University and University of California Berkeley became the first scientists to climb the trees in Muir Woods and survey life in the canopy. Researchers climbed a coast redwood tree and a Douglas fir tree in Cathedral Grove.

### Coast Redwood Tree

height	76 m (249 ft)
total dry mass	35.5 Mg $\pm$ 0.7
millions of leaves	129.8 $\pm$ 15.1
estimated age	740-800 years old

41 total species found, mostly lichen

(Redwood data collected by Stephen Sillett, Marie Antoine, and Jim Campbell-Spickler. Tree Ring data processed by Stephen Sillett and Allyson Carroll)

### Douglas Fir Tree

height 70 m (230ft)

58 total species found, mostly lichen and one juvenile arboreal salamander

(Douglas fir data collected by Rikke Reese Næsborg and Cameron Williams)



Rikke Reese Næsborg and Cameron Williams climb and survey a Douglas fir tree at Muir Woods. Photo credit: Tonatiuh Trejo-Cantwell

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## Douglas Fir Species

### LICHENS

*Alyxoria varia*  
*Bryoria fremontii*  
*Buellia muiriformis*  
*Calicium abietinum.*  
*Carbonicola myrmecina*  
*Chrismofulvia dialyta*  
*Chrysothrix xanthina*  
*Cladonia bellidiflora*  
*Cladonia transcendens*  
*Cyphelium inquinans*  
*Evernia prunastri*  
*Flavoparmelia caperata*  
*Fulgidea oligospora*  
*Hypogymnia apinnata*  
*Hypogymnia enteromorpha*  
*Hypogymnia heterophylla*  
*Imshaugia aleurites*  
*cf. Lecania naegelii*  
*Lecanora cf. jamesii*  
*Lecanora strobilina*  
*Lepraria sp.*  
*Loxosporopsis corallifera*  
*Ochrolechia juvenalis*

*Parmelia sulcata*  
*Parmotrema arnoldii*  
*Parmotrema perlatum*  
*Parmotrema stuppeum*  
*Placynthiella uliginosa*  
*Platismatia glauca*  
*Platismatia herrei*  
*Protoparmelia ochrococca*  
*Punctelia jeckeri*  
*Pyrrhospora quernea*  
*Ramalina menziesii*  
*Sphaerophorus tuckermannii*  
*Trapeliopsis flexuosa*  
*Tuckermannopsis orbata*  
*Usnea ceratina.*  
*Usnea chaetophora*  
*Usnea cornuta*  
*Usnea hirta*  
*Usnea longissima*  
*Usnea rubicunda*  
*Usnea subfloridana*  
*Unknown spp.*  
*Variolaria amara*

### LIVERWORTS

*Cephaloziella sp.*  
*Frullania nisquallensis*  
*Frullania sp.*  
*Porella navicularis*  
*Radula bolanderi*

### MOSSES

*Dicranoweisia cirrata*  
*Hypnum circinale*  
*Isothecium cristatum*  
*Isothecium stoloniferum*  
*Orthodicranum tauricum*

### VASCULAR PLANTS

*Polypodium glycyrrhiza*

### AMPHIBIAN

*Aneides lugubris*

## Coast Redwood Species

### LICHENS

*Alectoria imshaugii*  
*Calicium spp.*  
*Carbonicola myrmecina*  
*Chrysothrix xanthina*  
*Cladonia bellidiflora*  
*Cladonia transcendens*  
*Cyphelium inquinans*  
*Flavoparmelia caperata*  
*Flavopunctelia flaventior*  
*Hypogymnia apinnata*  
*Hypogymnia enteromorpha*  
*Hypogymnia heterophylla*  
*Hypogymnia physodes*  
*Lecanora sp.*  
*Lepraria sp.*  
*Menegazzia subsimilis*

*Ochrolechia spp.*  
*Parmelia hygrophila*  
*Parmelia sulcata*  
*Parmotrema arnoldii*  
*Parmotrema perlatum*  
*Pertusaria sp.*  
*Pyrrhospora quernea*  
*Trapeliopsis flexuosa*  
*Tuckermannopsis orbata*  
*Usnea ceratina*  
*Usnea cornuta*  
*Usnea rubicunda*  
*Usnea subfloridana*  
*Unknown spp.*

### MOSSES

*Isothecium cristatum*  
*Orthodontium gracile*

For more information visit:  
[SaveTheRedwoods.org/bioblitz](http://SaveTheRedwoods.org/bioblitz)