

**Initial Bryophyte and Lichen Inventories, Ochoco National Forest, Part 2**  
**Project Report by Rick Dewey, Project Lead**  
**August 2008**

Introduction

This project was initiated in 2005, with bryophyte and lichen inventories conducted largely in riparian zones, and largely on the eastern half of Ochoco National Forest. The 2005 inventories were conducted along portions of 12 stream systems, 10 of which are on the Paulina Ranger District (which composes roughly the eastern half of Ochoco National Forest), and two of which are on the Lookout Mountain Ranger District (which composes roughly the western half of the Forest). A minor amount of upland habitat was also inventoried. The 2007 inventories essentially resumed the 2005 inventories, extending them across much of the Lookout Ranger District not visited in 2005. The principal intent of these inventories was to augment the relatively scant information concerning the bryophyte and lichen flora of Ochoco National Forest. Region 6 USFS Sensitive bryophyte and lichen taxa were first added to the "Suspected" list for Ochoco National Forest in 2004, and additional suspected taxa were included in the new, 2008 R6 Sensitive Species List. Additional information concerning the bryophyte and lichen flora of Ochoco National Forest should allow Forest staff to prepare more defensible effects analyses and in turn, better manage occurrences of rare and uncommon bryophyte and lichen taxa and their habitats on the Forest.

The group of Sensitive bryophyte and lichen species documented or suspected to occur on Ochoco National Forest changed with the release of the R6 2008 Sensitive Species List. Under the new List, the following bryophyte and lichen species are Documented (D) or Suspected (S) to occur on Ochoco National Forest: the mosses *Scouleria marginata* (S) and *Tortula mucronifolia* (S) and the lichens *Dermatocarpon meiophyllizum* (D) and *Texosporium sancti-jacobi* (D). While the Final List was not released until January 2008, its Draft version, released in the summer of 2007, suggested that the taxa listed above would retain or acquire official status on Ochoco National Forest. While *Scouleria marginata* and *Dermatocarpon meiophyllizum*, retained from the 2004 List are both channel-dwelling, riparian obligates, the new taxa, *Tortula mucronifolia* and *Texosporium sancti-jacobi* occur in drier, upland habitats. There was little opportunity to encounter habitat for the latter two taxa during the inventories of 2007, as the lead on this project considered it appropriate and important to continue the emphasis on riparian zone surveys/inventories initiated in 2005. Contributing to this decision was the fact that the lead on this project considered it moderately probable that riparian zones on the Forest would provide pockets of suitable habitat for three wetland moss species that were new to the 2007 R6 Draft Sensitive Species List. These mosses (*Helodium blandowii*, *Calliargon trifarium* [= *Pseudocalliargon trifarium*] and *Tomentypnum nitens*) were retained on the final 2008 R6 Sensitive Species List. They are not regarded as Suspected on Ochoco National Forest on either the Draft or Final Lists.

Objectives

The objectives of the 2007 field season were basically those of the 2005 field season: 1) conduct systematic surveys for Sensitive bryophyte and lichen species with potential habitat in and along selected streams on the Lookout Ranger District of Ochoco National Forest and 2) expand the list of bryophytes and lichens known to occur on the Forest, and augment the existing collections of these taxa in the Forest (District) herbaria. Specific survey targets during the 2007 field season included the mosses *Helodium blandowii*, *Pseudocalliargon trifarium*, *Scouleria marginata* and *Tomentypnum nitens* and the lichen *Dermatocarpon meiophyllizum*.

Methods

Selection of streams for survey and inventory on Lookout Mountain Ranger District was largely undertaken during preparation for the 2005 field season. At that time, the whole of Ochoco

National Forest was examined via GIS, and an effort was made to select streams such the density of selected streams was roughly equivalent within the six, fourth-field (sub-basin) hydrologic units included on the Forest. Also, streams, or more specifically, reaches of streams, were selected in order to provide a variety of elevations, aspects, associated Plant Association Groups (PAG), and adjacency to roads. Actual survey routes were documented while in the field by using 1 inch = 1 mile topo maps and a Garmin GPS unit. Triggers to make a particular collection, in order of priority, were 1) possibility of being a R6 Sensitive Species, 2) new to project collections, and 3) new to a particular stream course. The latter trigger did not always prompt a collection. Digital photography was used to record landscape views along survey routes, as well as, occasionally, specific collection sites. Using GPS and topo map information, survey routes were sketched using the polyline feature in ArcGIS. Line features were then given a 20 meter buffer (10 meters to either side of line) to approximate the actual area covered during inspection along the survey route. Bryophyte identifications were performed by Rick Dewey, with second opinions on several species provided by David Wagner and John Christy. Tentative lichen identifications were made by Rick Dewey with expert verifications/corrections provided by Jim Riley and Doug Glavich.

## Results

Fieldwork on Lookout Ranger District was conducted between July 16 and September 27, 2007. Survey and inventory was conducted along portions of 14 streams. These streams, along with those visited during the 2005 field season, are listed in Table 1 and illustrated in Figure 1 of the Appendix. Visits to streams in the Maury Mountains were planned, but cancelled due to lack of time.

During 12 days of survey/inventory on Lookout Mountain Ranger District, 60 vouchers of lichens and 349 vouchers of bryophytes were collected. Fieldwork was conducted in four of the six hydrologic sub-basins represented on the Forest. The lichen collections have been determined to include 17 genera and at 29 species. Relative to the 2005 inventories, one new lichen taxon, *Dermatocarpon* cf. *bachmannii*, was detected. A list of lichen determinations is presented in Table 2 of the Appendix. All bryophyte vouchers have been screened for R6 Sensitive species and other rare or uncommon species. Some vouchers containing material appearing to represent previously identified and relatively common taxa have not been carefully examined. Currently 38 moss genera including 49 species/varieties and 14 liverwort genera including 21 species have been identified. Relative to the 2005 inventory, 13 new moss genera and three new liverwort genera were detected. A list of bryophyte determinations is included in Table 3 of the Appendix.

Three rare moss species, *Helodium blandowii*, *Tomentypnum nitens* and *Calliergon richardsonii* were detected within a single meadow-fen complex at the headwaters of Bridge Creek. *H. blandowii* and *T. nitens* were target species for the 2007 field season of this project. *C. richardsonii* is not currently on the R6 Sensitive Species List but is apparently a first record within the USA PNW (Wagner, 2008). A lichen tentatively identified as the target species *Dermatocarpon meiophyllizum* was detected along the East Fork of Howard Creek. An expert with the genus *Dermatocarpon* has subsequently determined that this material represents *D. cf. bachmannii*. This is apparently only the second record of this taxon in Oregon and in the PNW.

## Discussion

There are several points of note regarding findings during the 2007 field season. Where appropriate, the context of the 2005 findings is included.

1) *Dermatocarpon meiophyllizum*. No new sites of *D. meiophyllizum* were located during the 2007 surveys on Lookout Mountain Ranger District. This compares to sites on four different creeks located during 2005. Additionally, single sites on three other creeks were discovered incidental to other field projects during 2006. Currently, *Dermatocarpon meiophyllizum* is known from seven different creeks on Ochoco National Forest (Baldy, Heisler, Jungle, Porter, Roba,

Squaw and Wolf Creeks). While not currently on the R6 Sensitive Species List, *D. cf. bachmannii*, which was newly detected on Ochoco NF in 2007 (see above), promises to be among the most rare of central Oregon lichens. A third species, *D. miniatum*, was detected along Happy Camp Creek during this project's 2005 surveys. According to McCune and Geiser (1997), *D. miniatum* is fairly common in the PNW. The collective elevational range of the documented sites of these three *Dermatocarpon* species on Ochoco NF is 4000-5400 feet. It is somewhat unexpected that the documented sites of *Dermatocarpon* spp. on Ochoco NF occur only on the eastern two thirds of the Forest. Habitat would appear to exist, but no sites are currently known from further west than a north-south line passing through the eastern flank of Lookout Mountain. While a causal relationship is not apparent, it is perhaps notable that while three major formations account for most of the surficial geology on Ochoco NF, *Dermatocarpon* spp. currently are documented only on rocks of the Picture Gorge Formation.

During June through August, *D. meiophyllizum* is frequently found in relatively open sites in a desiccated condition on rock above the water line. These observations lead to the assumption that such thalli are likely to be metabolically active for relatively brief periods of the year, such as during higher springtime flow or when wetted by rainfall. Relatively open sites would allow the thalli to maximize opportunity for photosynthesis during these wet periods. Locally, this taxon appears to exhibit rather broad habitat amplitude, being found on both larger boulders and smaller rocks, and in very cold, relatively pristine creeks as well as warmer, shallower streams with conspicuous sediment loads and general livestock disturbance. Informal monitoring of the species, at a few sites representing the apparent range of disturbance conditions among these sites, could provide a better understanding of the lichen's actual habitat preferences/tolerances.

2) *Scouleria*. Two new occurrences of *Scouleria aquatica* were found during the 2007 surveys. Sites of this species are now known on five creeks on the Forest, three on Paulina Ranger District (Owl/Black Canyon, Squaw and Happy Camp Creeks) and two on Lookout Mountain Ranger District (Brush and Auger Creeks). The elevational range of these four sites is 4700-5800 feet. In the Pacific Northwest, this moss typically occurs on rock in cold, brisk-moving montane streams. The sites on Owl/Black Canyon and Brush Creeks appeared to be typical habitat for this moss at the time they were visited. The three other sites, while otherwise appearing suitable in elevation and gradient, occurred in atypically (personal observation) low levels of water flow. The occurrence of *Scouleria aquatica* is significant in that it is usually present at sites where the R6 Sensitive Species, *Scouleria marginata*, occurs.

3) *Riccia trichocarpa*. This thallose liverwort was found at one site (East Fork Howard Creek) during the 2007 inventories on Lookout Mountain Ranger District. This is in contrast to the seven sites on three different creeks (Beaverdam, South Fork Wind and Rock Creeks) located during the 2005 inventories, conducted principally on the Paulina Ranger District. Other than these sites on Ochoco National Forest, this species, in Oregon, is apparently known only from a single site in Deschutes County and two or three sites in Jackson County.

4) Disturbance bryophytes. Along with sharply reduced detections of *Riccia trichocarpa* during the 2007 Lookout Mountain Ranger District inventories, there was a similar reduction in detections of other, essentially ephemeral/annual bryophytes, relative to the 2005 Paulina Ranger District inventories. Bryophyte species with reduced, or zero, detections on Lookout Mountain Ranger District included the thallose liverworts *Riccia sorocarpa*, *Riccia beyrichiana*, *Fossombronia* sp. and *Sphaerocarpos michelii* and the moss *Phascum cuspidatum*. These bryophytes are typically found a) at open sites (the incidence of which is likely inversely related to annual precipitation rates and directly related to chronic disturbances such as livestock grazing), b) on fine textured soils (such as are often associated with topographic depressions, bottomlands and stream terraces) where c) soil moisture is only seasonally available.

5) Leafy liverwort distribution. East of the Cascade crest, leafy liverworts are most likely to be found in cool, moist microsites within moist forest types, often in association with north-aspect slopes and perennial drainages. The most common substrate for leafy liverworts in these

microsites is rotten wood or duff. The only leafy liverworts of this habitat type detected during the 2005 inventories on Paulina Ranger District were two species of the genus *Lophozia*. Leafy liverwort genera of this same habitat type detected during Lookout Mountain Ranger District inventories in 2005 (Bug, Hoffman and Canyon Creeks) and 2007 include *Calypogeia*, *Cephalozia*, *Jungermannia*, *Lepidozia*, *Lophocolea* and *Lophozia*. These are all common Cascadian genera.

6) Unique moss genera. Three moss genera detected on Paulina Ranger District were not detected on Lookout Mountain Ranger District. It seems likely that failure to detect the genera *Atrichum (selwynii)*, *Dryptodon (patens)* and *Phascum (cuspidatum)* on Lookout Mountain Ranger District is more due to the vagaries of the collection process, than to actual, limited, Forest-level distribution.

In contrast, 17 genera of mosses detected on Lookout Mountain Ranger district, were not detected on Paulina Ranger District. Two of these genera, *Buxbaumia* and *Tetraphis*, are somewhat like moss counterparts of the duff and rotten wood-dwelling leafy liverworts discussed above. A larger group, including *Dichodontium*, *Eurhynchium*, *Fissidens*, *Mnium*, *Rhizomnium*, *Rhytidiopsis* and *Timmia* are likely to be found on soil or rock in very damp places, particularly in moist forest types along streams. Most of the remaining unique moss genera are associated with a single, high elevation wetland at the headwaters of Bridge Creek. This wetland is discussed immediately below.

7) Bridge Creek Headwaters fens. A fen is a wetland (typically, a peatland) associated with the perennial upwelling/discharge of subsurface water (i.e., springs and seeps). On adjacent Deschutes National Forest, fens may exist in close proximity to, and transition into, wetlands supported by high water tables associated with adjacent lakes and perennial streams. Such wetlands typically are rather species poor, often being dominated by a few species of relatively tall sedges, rushes and grasses.

On Deschutes National Forest, at least, fens feature a diverse assemblage of generally low-statured graminoids and forbs representing genera such as *Eleocharis*, *Carex*, *Juncus*, *Eriophorum*, *Deschampsia*, *Drosera*, *Utricularia*, *Menyanthes*, *Hypericum* and *Tofieldia*. These same fens also have a distinctive bryological community, with some combination of the mosses *Aulacomnium palustre*, *Philonotis fontana*, *Hamatocaulis vernicosus*, *Meesia triquetra*, *Calliergon stramineum*, *Calliergonella cuspidata*, *Tomentypnum nitens* and (rarely) *Helodium blandowii*, being present. These fens typically occur between 4500-5500 feet of elevation and with regard to their structure and species composition, qualify as "rich" fens according to the fen literature (e.g., Bedford and Godwin, 2003). During the course of the 2005 and 2007 inventories on Ochoco National Forest, a fair number of seep and spring-fed wetlands adjacent to perennial streams, were encountered. These wetlands were likely to exist at elevations near or in excess of 5000 feet. Such wetlands are particularly well represented along the upper East Fork of Howard Creek, but also are found, among others, along portions of Allen, Bear, Brush, Bug, Hoffman Ochoco and Squaw Creeks. Further characterization of the flowering plant flora of these wetlands is needed. Notably, however, these wetlands do not closely resemble the low-stature, graminoid-forb vascular plant community characteristic of rich fens on Deschutes National Forest. Furthermore, the moss flora of nearly all of these wetlands is unlike that of the rich fens on Deschutes National Forest. These Ochoco National Forest wetlands are characteristically dominated by the mosses *Philonotis fontana*, *Plagiomnium* spp. and *Bryum* spp. with an occasional occurrence of *Aulacomnium palustre*.

A notable exception to this type of wetland was encountered along the headwaters of Bridge Creek, at about 6200 feet elevation, on the north shoulder of Mt. Pisgah. This is a wetland complex, with portions, particularly along the main channel of Bridge Creek, dominated by a mix of relatively tall sedges and grasses. However, south and upslope from the main channel, generally adjacent to a spruce and fir forest edge, is a string of spring/seep-fed fens with a low stature, graminoid-forb flowering plant community, and a moss flora similar to that of the

Deschutes National Forest fens. Moss genera (and species) present at this Bridge Creek site, and encountered nowhere else during the 2005 and 2007 surveys/inventories, include *Calliergon (richardsonii)*, *Helodium (blandowii)*, *Meesia (triquetra)*, *Sphagnum (warnstorffii)* and *Tomentypnum (nitens)*.

The presence multiple unique moss genera, including two Sensitive taxa (*Helodium blandowii* and *Tomentypnum nitens*) and a third taxon (*Calliergon richardsonii*) that is apparently new to Oregon and the USA PNW, indicates that the fens at the headwaters of Bridge Creek represent a rare, and quite possibly, unique incidence of a rich fen plant community on Ochoco National Forest. As with its bryophytes, these fens almost certainly include graminoid and forb species that at the Forest level, are either rare or uncommon (the initial visit data, September 27, was too late for an adequate vascular plant inventory). As these fens are included within an active livestock grazing allotment, and easily accessible by off-road vehicle users, these sites strongly merit monitoring of condition and use, as well as consideration of any appropriate protective measures. The detection of other uncommon bryophyte taxa along other Mt. Pisgah drainages (Bug, Hoffman and Allen Creeks) suggests that taxon-per-unit-area biodiversity within the several Mt. Pisgah drainages is likely among the highest on the Forest.

8) Livestock grazing in riparian zones. The opportunity, in the course of this two-year project, to walk along 26 streams or stream systems on Ochoco National Forest allowed many observations of the direct effects associated with livestock presence in riparian areas. It is not uncommon, along higher reaches of more or less perennial watercourses to find graminoid and forb communities that have been reduced to very short stubble, and shrubs that are browsed to virtually unidentifiable clumps of twigs. Other direct physical impacts of livestock presence include trampled herbs and shrubs, "post-holing" of wet stream terraces and meadows, compacted, sparsely vegetated trails, and gouged and bare stream banks. While there is evidence (as noted above) that a few bryophyte species on the Forest are well-adapted to grazing disturbance, it is equally evident that the majority of riparian/wetland taxa, particularly those occurring on soil, duff or rotten wood, often suffer loss of both individuals and habitat due to livestock use. Bryophyte microclimates, with reduction of local vegetation, are likely to transition from cooler to warmer, and from moister to drier. Probably most significant is the direct physical impact of hooves on organisms and their substrates. There appears to be a direct correlation between amount of use, and amount of loss. While some soil-dwelling lichens commonly occur in the riparian zones, the bulk of lichen species occur on the boles and branches of trees where they are less susceptible to disturbance by livestock.

9) Wildfire. Survey/inventory was conducted in the upper portions of the West and East Forks of Mill Creek. The latter stream is nearly fully included within the Mill Creek Wilderness Area. Each of these drainages experienced stand replacement fire intensity during the Hash Rock fire of 2000. The vulnerability of lichens and bryophytes to direct damage by fire was evident in the virtual non-existence of these taxa within the latter drainage, and extreme paucity of species in the former drainage, seven years after this fire. Several patches of bryophytes were found on the lower portions of a massive rock outcrop adjacent to the East Fork of Mill Creek within a typical, severely burned reach of the stream. The presence within one of these patches, of the moss *Metaneckera menziesii*, suggests that bryophytes were both relatively diverse and abundant along this portion of the creek prior to the Hash Rock Fire. *Metaneckera menziesii*, found nowhere else on Ochoco National Forest during the 2005/2007 bryophyte-lichen inventories, and rare even on the Cascades east flank on Deschutes National Forest, is representative of the damp forests west of the Cascade crest.

## References

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## Appendix

**Table 1.** Locations of bryophyte and lichen surveys on Ochoco National Forest in 2005 and 2007. Surveys at each site were accomplished in a single day. Survey Acres and Survey Miles were generated by Arc GIS analysis. Survey Acres represent linear survey routes with a 10 meter buffer on either side. All routes were fully walked except those at Derr/Jackson/No Name Creeks and Wolf Creek, where the multiple inventory sites were accessed by motor vehicle.

<b>Location</b>	<b>Miles</b>	<b>Acres</b>	<b>Survey Date</b>
Beaverdam Creek	0.8	6.4	15jun2005
Owl/Black Canyon Creeks	2.5	20.0	20jun2005
Wolf Creek	8.1	64.6	14jun2005
Roba Creek	1.2	9.6	13jun2005
Big Spring Creek	1.4	11.3	13jul2005
Derr/Jackson/No Name Creeks	4.3	34.6	23jun2005
Badger/Bug/Hoffman Creeks	1.4	11.6	4aug2005
Canyon Creek	0.7	5.7	3aug2005
Rock/Baldy/Squaw Creeks	2.4	18.9	22jun2005
Happy Camp Creek	1.8	14.3	2aug2005
East Fork Cottonwood Creek	4.9	39.4	21jun2005
South Fork Wind Creek	2.9	22.7	16jun2005
Peterson Creek	3.2	25.3	16jul2007
Allen Creek	1.7	13.5	24jul2007
Bridge Creek	0.8	29.0	27sep2007
East Fork Howard Creek	3.3	26.0	19jul2007
Crystal Creek	3.9	31.4	23jul2007
Ochoco Creek	1.2	10.0	23jul2007
Brush Creek	2.5	20.2	17jul2007
Bear Creek	1.4	11.2	14aug2007
Auger Creek	0.9	7.4	8aug2007
Trout Creek	0.9	7.5	7aug2007
East Fork Mill Creek	4.6	37.0	15aug2007
West Fork Mill Creek	3.0	23.6	30jul2007
North No Name Creek	1.0	8.1	31jul2007
South No Name Creek	0.7	6.0	31jul2007
<b>Totals</b>	<b>61.7</b>	<b>515.2</b>	

**Table 2.** List of lichens collected during the 2007 inventories/surveys on Lookout Mountain Ranger District of Ochoco National Forest. Identifications were made with the assistance of Jim Riley and Doug Glavich.

<b>Genus</b>	<b>Epithet</b>
Alectoria	imshaugii
Alectoria	sarmentosa
Bryoria	fremontii
Bryoria	glabra
Bryoria	pseudofuscescens
Cetraria	chlorophylla
Cetraria	merrellii
Cetraria	orbata
Cladonia	fimbriata
Cladonia	sulphurina
Cladonia	transcendens
Dermatocarpon	cf. bachmannii
Evernia	prunastri
Hypogymnia	imshaugii
Hypogymnia	occidentalis
Letharia	vulpina
Melanelia	exasperatula
Melanelia	subelegantula
Melanelia	subolivacea
Nodobryoria	abbreviata
Parmelia	sulcata
Parmeliopsis	ambigua
Parmeliopsis	hyperoptera
Peltigera	rufescens
Peltigera	venosa
Platismatia	glauca
Ramalina	farinacea
Umbilicaria	hyperborea
Usnea	lapponica



**Table 3.** List of bryophytes collected during the 2007 inventories/surveys on Lookout Mountain Ranger District, Ochoco National Forest. Some Identifications were reviewed by David Wagner (\*) or John Christy (\*\*).

<b>Genus</b>	<b>Epithet</b>	<b>Class</b>
Amblystegium	riparium	moss
Aulacomnium	palustre	moss
Barbula	vinealis+	moss
Brachythecium	erythrorrhizon	moss
Brachythecium	frigidum	moss
Brachythecium	hyalotapetum	moss
Brachythecium	velutinum	moss
Bryum	creberrimum	moss
Bryum	pseudotriquetrum	moss
Bryum	weigeli* <sup>*</sup>	moss
Buxbaumia	viridis	moss
Calliergon	richardsonii* <sup>*</sup>	moss
Calypogeia	fissa	liverwort
Cephalozia	lunulifolia	liverwort
Cephaloziella	divaricata	liverwort
Ceratodon	purpureus	moss
Chiloscyphus	polyanthos	liverwort
Conocephalum	conicum	liverwort
Dichodontium	pellucidum	moss
Dicranum	tauricum	moss
Drepanocladus	aduncus	moss
Drepanocladus	uncinatus	moss
Encalypta	vulgaris var. rhabdocarpa	moss
Eurhynchium	praelongum	moss
Fontinalis	neo-mexicana	moss
Fossombronia	sp.	liverwort
Funaria	hygrometrica	moss
Helodium	blandowii	moss
Hygrohypnum	ochraceum	moss
Hypnum	pratense	moss
Jungermannia	leiantha	liverwort
Lepidozia	reptans	liverwort
Leptobryum	pyriforme	moss
Lophozia	ascendens	liverwort
Lophozia	guttulata	liverwort
Lophozia	incisa	liverwort
Lophozia	ventricosa	liverwort
Marchantia	polymorpha	liverwort
Meesia	triquetra	moss
Metaneckera	menziesii	moss
Mnium	ambiguum* <sup>*</sup>	moss
Pellia	endiviifolia	liverwort
Philonotis	fontana	moss

Genus	Epithet	Class
Plagiomnium	cuspidatum	moss
Plagiomnium	medium	moss
Plagiomnium	rostratum*	moss
Plagiomnium	rugicum*	moss
Plagiomnium	venustum	moss
Pohlia	nutans	moss
Polytrichum	juniperinum	moss
Polytrichum	lyallii	moss
Porella	cordaeana	liverwort
Rhizomnium	magnifolium	moss
Rhytidiadelphus	triquetrus	moss
Rhytidiopsis	robusta	moss
Riccia	beyrichiana	liverwort
Riccia	crystallina	liverwort
Riccia	sorocarpa	liverwort
Riccia	trichocarpa	liverwort
Roellia	roellii	moss
Scapania	americana	liverwort
Scapania	undulata	liverwort
Schistidium	rivulare	moss
Scleropodium	obtusifolium	moss
Scouleria	aquatica	moss
Sphagnum	warnstorffii**	moss
Tetraphis	pellucida	moss
Timmia	austriaca	moss
Tomentypnum	nitens	moss
Tortula	ruralis	moss

+ This species (*Barbula vinealis*) was incorrectly identified during the 2005 inventories as *Bryoerythrophyllum recurvirostre*. No material with capsules was knowingly collected during the 2005 season, and determination was based on vegetative characters only. Re-examination of the 2005 collections in 2008 resulted in the detection of two capsules in one collection. Morphological characters associated with these capsules allowed a re-determination of the identity of this moss. *Bryoerythrophyllum recurvirostre* is no longer considered to have been detected during the 2005/2007 bryophyte inventories on Ochoco National Forest.

**Figure 1.** Location of 2005 and 2007 bryophyte and lichen inventories/surveys on Ochooco National Forest.

# Bryophyte and Lichen Inventory/Survey on Ochoco National Forest

