

Bryophyte Purposive Survey – Project Report  
 Erica Heinlen  
 August 7, 2006

Several Forest Service botanists and I conducted purposive surveys on the Tonasket and Methow Valley Ranger Districts [Okanogan-Wenatchee National Forest] for three sensitive bryophyte species, *Schistostega pennata*, *Scouleria marginata*, *Tetraphis geniculata*.

The target area for the surveys was intended to be within the Tiffany Botanical Area, however a late snow pack and an early fire season in the area precluded us from entering the area in the given time frame. We instead chose three other areas on the forest of likely habitat (Table 1). Species lists are provided in the Appendix.

Date	Location	Habitat	GPS Coordinates	No. of Species
6/29/06	Brown's Meadow Creek	Stream/wet meadow in ABLA2 zone	UTM Z11 N 5394782 E0281215 Elev. 6250 ft	42
7/10/06	Long Swamp*	Open meadow	UTM Z 11 N 5416833 E 0281271 Elev. 5500 ft	24
	Long Swamp – upland	Moist forest in ABLA2 zone	UTM Z 11 N 5416930 E0280704 Elev. 5650 ft	26
	Long Swamp – Stream	Small stream in ABLA2 zone	UTM Z 11 N 5416921 E 0281100 Elev. 5600 ft	19
7/13/06	8-mile – Upper cattle guard	Moist forest in ABLA2 zone	N 48 deg. 46.091 min W 120 deg. 18.287 min Elev. 3900 ft.	22
	8-mile – Copper Glance Trailhead	Stream and moist forest with THPL tree cover	UTM Z 10 N 5402018 E 0699167 Elev. 3800 ft.	36

\* This location includes species collected on a rock outcrop on the road (2 spp.) and a moist north-facing cliff area (10 spp.) adjacent to the meadow.

I also identified species that botanists had collected at Falls Creek Fen several years ago. Those species are listed in the Appendix.

No populations of the three target species were found in any of the locations. Two species at the Brown's Meadow Creek location and two species at the Falls Creek fen location are currently listed on the working list of Mosses with the Washington Natural Heritage Program. We found a splachnaceous moss without capsules on a cowpie at Brown's meadow that vegetatively keys most likely to *Tayloria serrata*. I believe this species was found at Roger's Lake that is only a few miles to the south in similar habitat. We also found *Polytrichum strictum* growing on a Sphagnum hummock in the meadow. I identified *Meesia triquetra* and

*Meesia uliginosa* out of the specimens I received from the Falls Creek fen. The local botanists will want to send this information to the Natural Heritage Program.

The specimens will be given to the local botanists at the two Ranger Districts for their bryophyte collections.

## Appendix A. Species Lists for each area

### Methow Valley Ranger District

Area: 8-mile, Copper Glance Trailhead

#### Species

<i>Amblestegium serpens</i> (Hedw.) Schimp.
<i>Aulacomnium androgynum</i> (Hedw.) Schwaegr.
<i>Brachythecium nelsonii</i> Grout
<i>Brachythecium rivulare</i> Schimp.
<i>Brachythecium salebrosum</i> (Web. & Mohr) Schimp. Var. <i>salebrosum</i>
<i>Bryum pseudotriquetrum</i> (Hedw.) Gaertn. et al.
<i>Bryum weigellii</i> Spreng.
<i>Calypogeia integristipula</i> Steph.
<i>Cephalozia connivens</i> (Dicks.) Lindb.
<i>Cephaloziella</i> sp.
<i>Ceratodon purpureus</i> (Hedw.) Brid. Var. <i>purpureus</i>
<i>Chiloscyphus pallescens</i> (Hoffm.) Dumort.
<i>Chiloscyphus polyanthos</i> (L.) Corda
<i>Conocephalum conicum</i> (L.) Dumort.
<i>Cynodontium strumiferum</i> (Hedw.) Lindb.
<i>Dichodontium pellucidum</i> (Hedw.) Schimp.
<i>Drepanocladus aduncus</i> (Hedw.) Warnst. Var. <i>aduncus</i>
<i>Eurhynchium pulchellum</i> (Hedw.) Jenn. Var. <i>pulchellum</i>
<i>Jungermannia exsertifolia</i> Steph. Ssp. <i>cordifolia</i> Vana
<i>Jungermannia leiantha</i> Grolle
<i>Lepidozia reptans</i> (L.) Dumort.
<i>Lophozia incisa</i> (Schrad.) Dumort.
<i>Lophozia longidens</i> (Lindb.) Macoun
<i>Lophozia ventricosa</i> (Dicks.) Dumort.
<i>Marchantia polymorpha</i> L.
<i>Mnium ambiguum</i> H. Mull.
<i>Plagiomnium medium</i> (Bruch & Schimp.) T. Kop. Var. <i>medium</i>
<i>Platydictya jungermanniioides</i> (Brid.) Crum
<i>Pohlia cruda</i> (Hedw.) Lindb.
<i>Pohlia nutans</i> (Hedw.) Lindb.
<i>Ptilidium californicum</i> (Austin) Pearson
<i>Rhizomnium pseudopunctatum</i> (Bruch & Schimp.) T. Kop.
<i>Rhytidiopsis robusta</i> (Hook.) Broth.
<i>Sanonia uncinata</i> (Hedw.) Loeske
<i>Scapania irrigua</i> (Nees) Gottsche & Lindenb. & Nees
<i>Tetraphis pellucida</i> Hedw.

Area: 8-mile, Upper Cattle Guard

Species
<i>Amblystegium serpens</i> (Hedw.) Schimp.
<i>Barbilophozia lycopodioides</i> (Wallr.) Loeske
<i>Brachythecium erythrorrhizon</i> Schimp.
<i>Brachythecium salebrosum</i> (Web. & Mohr) Schimp. Var. <i>salebrosum</i>
<i>Cephalozia connivens</i> (Dicks.) Lindb.
<i>Dicranoweisia crispula</i> (Hedw.) Milde
<i>Dicranum fuscescens</i> Turn. Var. <i>fuscescens</i>
<i>Dicranum scoparium</i> Hedw.
<i>Dicranum tauricum</i> Sapeh.
<i>Lescurea radicata</i> (Mitt.) Moenk. Var. <i>radicata</i>
<i>Lophocolea minor</i> Nees
<i>Lophozia incisa</i> (Schrad.) Dumort.
<i>Lophozia ventricosa</i> (Dicks.) Dumort.
<i>Mnium spinulosum</i> Bruch & Schimp.
<i>Orthotrichum alpestre</i> Hornsch.
<i>Orthotrichum laevigatum</i> Zett.
<i>Plagiothecium denticulatum</i> (Hedw.) Schimp.
<i>Pohlia nutans</i> (Hedw.) Lindb.
<i>Polytrichum juniperinum</i> Hedw.
<i>Pterigynandrum filiforme</i> Hedw.
<i>Roellia roellii</i> (Broth.) Crum
<i>Tetraphis pellucida</i> Hedw.

Area: Falls Creek Fen

Species
<i>Amblystegium serpens</i> (Hedw.) Schimp.
<i>Aulacomnium palustre</i> (Hedw.) Schwaegr.
<i>Blepharostoma trichophyllum</i> (L.) Dumort.
<i>Brachythecium erythrorrhizon</i> Schimp.
<i>Brachythecium frigidum</i> (C. Mull.) Besch.
<i>Brachythecium nelsonii</i> Grout
<i>Bryum pseudotriquetrum</i> (Hedw.) Gaertn. et al.
<i>Calliergon giganteum</i> (Schimp.) Kindb.
<i>Campylium hispidulum</i> (Brid.) Mitt.
<i>Cephalozia pleniceps</i> (Austin) Lindb.
<i>Cephaloziella</i> sp.
<i>Chiloscyphus pallescens</i> (Hoffm.) Dumort.

Dicranum scoparium Hedw.
Dicranum tauricum Sapeh.
Drepanocladus aduncus (Hedw.) Warnst. Var. aduncus
Drepanocladus aduncus (Hedw.) Warnst. Var. kniefii (Schimp.) Monk.
Drepanocladus aduncus (Hedw.) Warnst.
Isopterygiopsis pulchella (Hedw.) Iwats.
Jungermannia leiantha Grolle
Jungermannia sp.
Lepidozia reptans (L.) Dumort.
Leptobryum pyriforme (Hedw.) Wils.
Leptodictyum riparium (Hedw.) Warnst.
Lophocolea minor Nees
Lophozia ascendens (Warnst.) R. M. Schust.
Lophozia incisa (Schrad.) Dumort.
Lophozia longiflora (Nees) Schiffn.
Lophozia ventricosa (Dicks.) Dumort.
Marchantia polymorpha L.
Meesia triquetra (Richt.) Angstr.
Meesia uliginosa Hedw.
Philonotis $\square$ almate (Hedw.) Brid.
Plagiomnium ellipticum (Brid.) T. Kop.
Plagiothecium denticulatum (Hedw.) Schimp.
Platydictya jungermanniioides (Brid.) Crum
Pohlia nutans (Hedw.) Lindb.
Polytrichum juniperinum Hedw.
Rhizomnium pseudopunctatum (Bruch & Schimp.) T. Kop.
Riccardia $\square$ almate (Hedw.) Carruth.
Sanionia uncinata (Hedw.) Loeske

Tonasket Ranger District

Area: Brown's Meadow

Species
<i>Aulacomnium palustre</i> (Hedw.) Schwaegr.
<i>Brachythecium erythrorrhizon</i> Schimp.
<i>Brachythecium frigidum</i> (C. Mull.) Besch.
<i>Brachythecium nelsonii</i> Grout
<i>Brachythecium salebrosum</i> (Web. & Mohr) Schimp. Var. <i>salebrosum</i>
<i>Brachythecium velutinum</i> (Hedw.) Schimp.
<i>Bryum pseudotriquetrum</i> (Hedw.) Gaertn. et al.
<i>Bryum weigelii</i> Spreng.
<i>Calliergon stramineum</i> (Brid.) Kindb.
<i>Campylium polygamum</i> (Schimp. In B.S.G.) C. Jens
<i>Cephalozia pleniceps</i> (Austin) Lindb.
<i>Cephaloziella</i> sp.
<i>Ceratodon purpureus</i> (Hedw.) Brid. Var. <i>purpureus</i>
<i>Chiloscyphus polyanthos</i> (L.) Corda
<i>Dichodontium pellucidum</i> (Hedw.) Schimp.
<i>Dicranum fuscescens</i> Turn. Var. <i>fuscescens</i>
<i>Grimmia sessitina</i> De Not.
<i>Leptobryum pyriforme</i> (Hedw.) Wils.
<i>Lophozia incisa</i> (Schrad.) Dumort.
<i>Lophozia longiflora</i> (Nees) Schiffn.
<i>Lophozia ventricosa</i> (Dicks.) Dumort.
<i>Marchantia polymorpha</i> L.
<i>Mnium marginatum</i> (With.) P. Beauv.
<i>Pellia endiviifolia</i> (Dicks.) Dumort.
<i>Philonotis montana</i> (Hedw.) Brid.
<i>Pohlia cruda</i> (Hedw.) Lindb.
<i>Pohlia nutans</i> (Hedw.) Lindb.
<i>Pohlia proligera</i> (Breidl.) Arnell
<i>Pohlia wahlenbergii</i> (Web. & Mohr) Andrews
<i>Polytrichum commune</i> Hedw. var. <i>commune</i>
<i>Polytrichum juniperinum</i> Hedw.
<i>Polytrichum strictum</i> Brid.
<i>Rhizomnium magnifolium</i> (Horik.) T. Kop.
<i>Rhizomnium pseudopunctatum</i> (Bruch & Schimp.) T. Kop.
<i>Sanionia uncinata</i> (Hedw.) Loeske
<i>Scapania irrigua</i> (Nees) Gottsche & Lindenb. & Nees
<i>Scapania undulata</i> (L.) Dumort.
<i>Schistidium rivulare</i> (Brid.) Podp.
<i>Scouleria aquatica</i> Hook.
<i>Sphagnum warnstorffii</i> Russ.
<i>Tayloria</i> sp. ?? – <i>serrata</i> ?
<i>Timmia austriaca</i> Hedw.

Warnstorfia exannulata (Schimp.) Loeske var. exannulata
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Area: Long Swamp

Species
Aulacomnium palustre (Hedw.) Schwaegr.
Blepharostoma trichophyllum (L.) Dumort.
Brachythecium nelsonii Grout
Bryum pseudotriquetrum (Hedw.) Gaertn. et al.
Bryum weigellii Spreng.
Calliergon cordifolium (Hedw.) Kindb.
Chiloscyphus pallescens (Hoffm.) Dumort.
Cladipodiella fluitans
Cynodontium strumiferum (Hedw.) Lindb.
Harpanthus flotovianus (Nees) Nees
Hypnum pratense (Rabenh.) Spruce
Jungermannia sp.
Lophozia ventricosa (Dicks.) Dumort.
Philonotis montana (Hedw.) Brid.
Plagiomnium ellipticum (Brid.) T. Kop.
Pohlia cruda (Hedw.) Lindb.
Pohlia nutans (Hedw.) Lindb.
Pohlia prolifera (Breidl.) Arnell
Polytrichum commune Hedw. var. commune
Rhizomnium pseudopunctatum (Bruch & Schimp.) T. Kop.
Sanionia uncinata (Hedw.) Loeske
Scapania paludicola Loeske & Mull.
Sphagnum warnstorffii Russ.
Warnstorfia exannulata (Schimp.) Loeske var. exannulata

Area: Long Swamp - Stream

Species
Atrichum selwynii Aust.
Aulacomnium palustre (Hedw.) Schwaegr.
Bartramia ithyphylla Brid.
Blepharostoma trichophyllum (L.) Dumort.
Bryum pseudotriquetrum (Hedw.) Gaertn. et al.
Chiloscyphus pallescens (Hoffm.) Dumort.
Dicranum scoparium Hedw.
Limprichtia revolvens (Sw.) Loeske
Marchantia polymorpha L.
Philonotis montana (Hedw.) Brid.
Plagiothecium laetum Schimp.
Pleurozium schreberi (Brid.) Mitt.

Pohlia cruda (Hedw.) Lindb.
Pohlia prolifera (Bridl.) Arnell
Rhizomnium pseudopunctatum (Bruch & Schimp.) T. Kop.
Rhytidiopsis robusta (Hook.) Broth.
Sanionia uncinata (Hedw.) Loeske
Scapania irrigua (Nees) Gottsche & Lindenb. & Nees
Scapania undulata (L.) Dumort.

Area: Long Swamp – North Facing Cliff

Species
Barbilophozia lycopodioides (Wallr.) Loeske
Dicranum fuscescens Turn. Var. fuscescens
Dicranum scoparium Hedw.
Hypnum revolutum (Mitt.) Lindb.
Lophozia ventricosa (Dicks.) Dumort.
Philonotis montana (Hedw.) Brid.
Pohlia nutans (Hedw.) Lindb.
Pohlia prolifera (Bridl.) Arnell
Polytrichum juniperinum Hedw.
Timmia austriaca Hedw.

Area: Long Swamp – Rocky Road Cut

Species
Grimmia longirostris Hook.
Schistidium apocarpum (Hedw.) Bruch & Schimp.

Area: Long Swamp - Upland

Species
Andreaea rupestris Hedw. var. rupestris
Aulacomnium androgynum (Hedw.) Schwaegr.
Barbilophozia hatcheri (A. Evans) Loeske
Barbilophozia lycopodioides (Wallr.) Loeske
Brachythecium erythrorrhizon Schimp.
Brachythecium salebrosum (Web. & Mohr) Schimp. var. salebrosum
Brachythecium velutinum (Hedw.) Schimp.
Bryum pseudotriquetrum (Hedw.) Gaertn. et al.
Dicranoweisia crispula (Hedw.) Milde
Dicranum fuscescens Turn. var. fuscescens
Eurhynchium pulchellum (Hedw.) Jenn. var. pulchellum
Grimmia ovalis (Hedw.) Lindb.
Lescurea radicata (Mitt.) Moenk. var. radicata



Lophozia ventricosa (Dicks.) Dumort.
Orthotrichum rupestre Schwaegr.
Pohlia nutans (Hedw.) Lindb.
Polytrichum juniperinum Hedw.
Polytrichum lyallii (Mitt.) Kindb.
Polytrichum piliferum Hedw.
Pterigynandrum filiforme Hedw.
Racomitrium sudeticum (Funck) Bruch & Schimp.
Rhizomnium pseudopunctatum (Bruch & Schimp.) T. Kop.
Sanionia uncinata (Hedw.) Loeske
Scapania subalpina (Nees) Dumort.
Timmia austriaca Hedw.
Trichodon cylindricus (Hedw.) Schimp. var. cylindricus