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LICHENS OF THE H. J. ANDREWS EXPERIMENTAL FOREST:

PRELIMINARY CHECKLIST

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ABSTRACT

Forty-nine genera and ninety-eight species of lichenized fungi are reported from the H. J. Andrews Experimental Forest (Oregon). Substrates, growth form, and type of phycobiont are indicated for each taxon.

This report contains a list of the lichens which have been found in the H. J. Andrews Experimental Forest, 75 km east of Eugene, Oregon. This incomplete checklist is based mainly on macrolichens collected in old-growth Douglas fir stands between 450 and 650 m elevation, and includes 49 genera and 98 species in 25 families. The 350 specimens of Andrews Forest lichens examined have been deposited in the herbarium of Oregon State University (OSC) with accession numbers between 29220 and 31370.

Nomenclature and systematic arrangement in the checklist follow that of Hale and Culberson (1970).

The two-digit numbers used with each entry indicate growth form, type of phycobiont, and substrates on which the species is usually found in the Andrews Forest.

SUBSTRATE

- 01 Bark
- 02 Decorticated wood
- 03 Bryophytes
- 04 Soil
- 05 Rocks
- 06 Leaves

GROWTH FORM

- 11 Crustose
- 12 Squamulose
- 13 Foliose
- 14 Fruticose
- 15 Primary thallus persistent, crustose or squamulose;
Secondary thallus fruticose

PHYCOBIONT

- 21 Chlorophyceae (green algae)
- 22 Cyanophyceae (Blue-green algae)
- 23 Primary phycobiont Chlorophyceae;
Secondary phycobiont Cyanophyceae

| | <u>Substrate</u> | <u>Growth Form</u> | <u>Phycobiont</u> |
|---|-------------------|--------------------|-------------------|
| Order Lecanorales | | | |
| Family Collemataceae | | | |
| <u>Leptogium californium</u> Tuck. | 04 | 13 | 22 |
| <u>Leptogium palmatum</u> (Huds.) Mont. | 03, 04 | 13 | 22 |
| <u>Leptogium sinuatum</u> (Huds.) Mass. | 01 | 13 | 22 |
| Family Placynthiaceae | | | |
| <u>Psoroma hypnorum</u> (Vahl.) S. Gray | 01, 03, 05 | 12 | 23 |
| Family Pannariaceae | | | |
| <u>Parmeliella cyanolepra</u> (Tuck.) Herre | 03, 05 | 11 | 22 |
| <u>Parmeliella saubinetii</u> Zahlbr. | 01, 02, 03, 05 | 12 | 22 |
| Family Peltigeraceae | | | |
| <u>Hydrothyria venosa</u> Russ. | 05 | 13 | 22 |
| <u>Peltigera apthosa</u> (L.) Willd. | 01, 03, 04 | 13 | 23 |
| <u>Peltigera canina</u> (L.) Willd. | 04 | 13 | 22 |
| <u>Peltigera collina</u> (Ach.) Ach. | 01, 03, 05 | 13 | 22 |
| <u>Peltigera membranacea</u> (Ach.) Nyl. | 03 | 13 | 22 |
| <u>Peltigera polydactyla</u> (Neck.) Hoffm. | 03, 03 | 13 | 22 |
| <u>Peltigera praetextata</u> (Flörke ex Somm.) Vain. | 05 | 13 | 22 |
| Family Nephromataceae | | | |
| <u>Nephroma bellum</u> (Spreng.) Tuck. | 01 | 13 | 22 |

| | <u>Substrate</u> | <u>Growth Form</u> | <u>Phycobiont</u> |
|---|------------------|--------------------|-------------------|
| Family Nephromataceae (continued) | | | |
| <u>Nephroma helveticum</u> Ach. var. | | | |
| <u>sipeanum</u> (Gyeln.) Wetm. | 01 | 13 | 22 |
| <u>Nephroma laevigatum</u> Ach. | 01 | 13 | 22 |
| <u>Nephroma parile</u> (Ach.) Ach. | 01 | 13 | 22 |
| <u>Nephroma resupinatum</u> (L.) Ach. | 01 | 13 | 22 |
| Family Stictaceae | | | |
| <u>Lobaria oregana</u> (Tuck.) Müll. Arg. | 01 | 13 | 23 |
| <u>Lobaria pulmonaria</u> (L.) Hoffm. | 01 | 13 | 23 |
| <u>Lobaria scrobiculata</u> (Scop.) DC. | 01 | 13 | 22 |
| <u>Pseudocyphellaria anomala</u> Magn. | 01 | 13 | 22 |
| <u>Pseudocyphellaria anthraxis</u> (Ach.) Magn. | 01 | 13 | 22 |
| <u>Pseudocyphellaria crocata</u> (L.) Vain. | 01 | 13 | 22 |
| <u>Pseudocyphellaria rainierensis</u> Imsh. | 01 | 13 | 23 |
| <u>Sticta fuliginosa</u> (Dicks.) Ach. | 01 | 13 | 22 |
| <u>Sticta weigelia</u> (Insert ex Ach.) Vain. | 01 | 13 | 22 |
| Family Lecideaceae | | | |
| <u>Bacidia</u> sp. | 01 | 11 | 21 |
| <u>Catillaria griffithii</u> (Sm.) Malme | 02 | 11 | 21 |
| <u>Catillaria laureri</u> Hepp. | 01 | 11 | 21 |
| <u>Lecidea atrobrunnea</u> (Ram.) Schaer. | 05 | 11 | 21 |
| <u>Lecidea cinnabarina</u> Somm. | 01 | 11 | 21 |

| | <u>Substrate</u> | <u>Growth Form</u> | <u>Phycobiont</u> |
|---|------------------|--------------------|-------------------|
| Family Lecideaceae (continued) | | | |
| <u>Lecidea</u> cf. <u>erratica</u> Körb. | 01, 06 | 11 | 21 |
| <u>Lecidea</u> <u>friesii</u> Ach. | 01 | 11 | 21 |
| <u>Mycoblastus</u> <u>sanguinarius</u> (L.) Norm. | 01 | 11 | 21 |
| <u>Rhizocarpon</u> <u>geographicum</u> (L.) DC. | 05 | 11 | 21 |
| <u>Rhizocarpon</u> <u>grande</u> (Flörke ex Flot.) Arn. | 05 | 11 | 21 |
| Family Stereocaulaceae | | | |
| <u>Pilophoron</u> <u>acicularis</u> (Ach.) Nyl. | 05 | 15 | 23 |
| <u>Pilophoron</u> <u>clavatus</u> Th. Fr. | 05 | 15 | 23 |
| <u>Stereocaulon</u> <u>albicans</u> (Th. Fr.) Nyl. ex Hue | 05 | 15 | 21 |
| <u>Stereocaulon</u> cf. <u>sterile</u> (Sav.) M. Lamb | 05 | 15 | 23 |
| Family Cladoniaceae | | | |
| <u>Cladonia</u> <u>chlorophaea</u> (Flörke ex Somm.) Spreng. | 04 | 15 | 21 |
| <u>Cladonia</u> <u>fimbriata</u> (L.) Fr. | 04 | 15 | 21 |
| <u>Cladonia</u> <u>furcata</u> (Huds.) Schrad. | 04 | 15 | 21 |
| <u>Cladonia</u> <u>macilenta</u> Hoffm. | 01 | 15 | 21 |
| <u>Cladonia</u> <u>nemoxyna</u> (Ach.) Nyl. | 04 | 15 | 21 |
| <u>Cladonia</u> <u>subsquamosa</u> (Nyl.) Vain. | 04 | 15 | 21 |
| Family Umbilicariaceae | | | |
| <u>Umbilicaria</u> <u>phaea</u> Tuck. | 05 | 13 | 21 |

| | <u>Substrate</u> | <u>Growth Form</u> | <u>Phycobiont</u> |
|---|------------------|--------------------|-------------------|
| Family Umbilicariaceae (continued) | | | |
| <u>Umbilicaria polyphylla</u> (L.) Baumg. | 05 | 13 | 21 |
| <u>Umbilicaria torrefacta</u> (Lightf) Schrad. | 05 | 13 | 21 |
| <u>Umbilicaria vellea</u> (L.) Ach. | 05 | 13 | 21 |
| Family Pertusariaceae | | | |
| <u>Pertusaria ambigens</u> (Nyl.) Tuck. | 01 | 11 | 21 |
| Family Acarosporaceae | | | |
| <u>Acarospora fuscata</u> (Schrad.) Arn | 05 | 12 | 21 |
| Family Lecanoraceae | | | |
| <u>Icmadophila ericetorum</u> (L.) Zahlbr. | 02 | 11 | 21 |
| <u>Lecania dimera</u> (Nyl.) Th. Fr. | 01 | 11 | 21 |
| <u>Lecanora cf. chlarona</u> (Ach.) Nyl. | 01 | 11 | 21 |
| <u>Lecanora rupicola</u> (L.) Zahlbr. | 05 | 11 | 21 |
| <u>Placopsis gelida</u> (L.) Linds. | 05 | 11 | 23 |
| <u>Ochrolechia androgyna</u> (Hoffm.) Arn. | 01 | 11 | 21 |
| <u>Ochrolechia oregonensis</u> Magn. | 01 | 11 | 21 |
| Family Candelariaceae | | | |
| <u>Candelariella vitellina</u> (Ehrh.) Mull. Arg. | 05 | 11 | 21 |
| Family Parmeliaceae | | | |
| <u>Cavernularia hultenii</u> Degel. | 01 | 13 | 21 |
| <u>Cetraria canadensis</u> (Ras.) Ras. | 01 | 13 | 21 |
| <u>Cetraria chlorophylla</u> (Willd.) Vain. | 01 | 13 | 21 |
| <u>Cetraria idahoensis</u> Essl. | 01 | 13 | 21 |

| | <u>Substrate</u> | <u>Growth Form</u> | <u>Phycobiont</u> |
|---|------------------|--------------------|-------------------|
| Family Parmeliaceae (continued) | | | |
| <u>Cetraria orbata</u> (Nyl.) Fink. | 01 | 13 | 21 |
| <u>Cetraria pallidula</u> Tuck. | 01 | 13 | 21 |
| <u>Cetraria platyphylla</u> Tuck. | 01 | 13 | 21 |
| <u>Hypogymnia enteromorpha</u> (Ach.) Nyl. | 01 | 13 | 21 |
| <u>Hypogymnia imshaugii</u> Krog | 01 | 13 | 21 |
| <u>Hypogymnia physodes</u> (L.) W. Wats. | 01 | 13 | 21 |
| <u>Parmelia pseudosulcata</u> Gyeln. ¹ | 01, 05 | 13 | 21 |
| <u>Parmelia saxatilis</u> (L.) Ach. | 01 | 13 | 21 |
| <u>Parmeliopsis ambigua</u> (Wulf.) Nyl. | 01 | 13 | 21 |
| <u>Parmeliopsis hyperopta</u> (Ach.) Arn. | 01 | 13 | 21 |
| <u>Platismatia glauca</u> (L.) W. Culb. & C. Culb. | 01 | 13 | 21 |
| <u>Platismatia herrei</u> (Imsh.) W. Culb. & C. Culb. | 01 | 13 | 21 |
| <u>Platismatia stenophylla</u> (Tuck.) W. Culb. & C. Culb. | 01 | 13 | 21 |
| Family Usneaceae | | | |
| <u>Alectoria pubescens</u> (L.) R. H. Howe | 05 | 14 | 21 |
| <u>Alectoria sarmentosa</u> (Ach.) Ach. | 01 | 14 | 21 |
| <u>Cornicularia normoerica</u> (Gunn.) Du Rietz | 05 | 14 | 21 |
| <u>Letharia columbiana</u> (Nutt.) Thoms. | 01 | 14 | 21 |
| <u>Usnea subloridana</u> Stirt. | 01 | 14 | 21 |

| | <u>Substrate</u> | <u>Growth Form</u> | <u>Phycobiont</u> |
|--|------------------|--------------------|-------------------|
| Family Buelliaceae | | | |
| <u>Buellia penichra</u> (Tuck.) Hasse | 01 | 11 | 21 |
| <u>Rinodina archaea</u> (Ach.) Arn. | 01 | 11 | 21 |
| <u>Rinodina septentrionalis</u> Malme | 06 | 11 | 21 |
| Family Physciaceae | | | |
| <u>Physcia</u> sp. | 01 | 13 | 21 |
| Family Teloschistaceae | | | |
| <u>Caloplaca</u> sp. | 01 | 11 | 21 |
| Order Ostropales | | | |
| Family Graphidaceae | | | |
| <u>Xylographa hians</u> Tuck. | 02 | 11 | 21 |
| Order Sphaeriales | | | |
| Family Verrucariaceae | | | |
| <u>Verrucaria</u> sp. | 05 | 11 | 21 |
| Order Caliciales | | | |
| Family Caliciaceae | | | |
| <u>Calicium abietinum</u> Pers. | 02 | 11 | 21 |
| <u>Calicium floerkei</u> Zahlbr. | 02 | 11 | 21 |
| <u>Calicium viride</u> Pers. | 01 | 11 | 21 |
| <u>Chaenotheca</u> cf. <u>hispidula</u> (Ach.) Zahlbr. | 02 | 11 | 21 |
| <u>Chaenotheca</u> cf. <u>melanophaea</u> (Ach.) Zw. | 01 | 11 | 21 |

| | <u>Substrate</u> | <u>Growth Form</u> | <u>Phycobiont</u> |
|--|------------------|--------------------|-------------------|
| Family Caliciaceae (continued) | | | |
| <u>Coniocybe furfuracea</u> (L.) Ach. | 01 | 11 | 21 |
| <u>Stenocybe major</u> Nyl. | 01 | 11 | 21 |
| Family Cypheliaceae | | | |
| <u>Cyphelium inquinans</u> (Sm.) Trev. | 01 | 11 | 21 |
| Family Sphaerophoraceae | | | |
| <u>Sphaerophorus globosus</u> (Huds.) Vain. | 01 | 14 | 21 |
| Order Agaricales | | | |
| Family Clavulariaceae | | | |
| <u>Omphalina ericetorum</u> (Pers.) M. Lange | 02, 03, 04 | 11 | 21 |
| Fungi Imperfecti | | | |
| <u>Lepraria membranacea</u> (Dicks.) Vain. | 01 | 11 | 21 |
| <u>Lepraria neglecta</u> (Nyl.) Lett. | 03 | 11 | 21 |

FOOTNOTE

According to Hale (1969), *Parmelia pseudosulcata* Gyeln. is K-, but according to the original description (Gyelnik 1934), it is K+ yellow. An isotype (Sipe #684, UO) and material from the Andrews Forest are both K+ yellow.

LITERATURE CITED

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