

# Lichen Inventory of Albert Head Vancouver Island British Columbia

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## APPENDIX 1

### ANNOTATED CHECKLIST OF THE LICHENS OF ALBERT HEAD, VANCOUVER ISLAND, CANADA

Note: Abundance is indicated on a scale of rare, uncommon, occasional, common. These terms refer only to abundance at Albert Head. The abbreviation “cf.”, from Latin *conferat* is used in cases in which the local material appears not to be the species whose epithet is used, but which has no closer matching species. Otherwise, uncertain identifications are indicated by use of a question mark, or by use of the term “*sensu lato*” or “group”. These latter terms are used when it was previously known that a species’ name is applied to a complex of similar species.

*Acarospora fuscata* (Schrad.) Arnold Crust, saxicolous, open cliffs and outcrops. Rarely seen.

*Acarospora smaragdula* (Wahlenb.) A.Massal. Crust, saxicolous, open cliffs and outcrops, sometimes aerohaline. Occasional, not found in good vigour, often overgrown by other lichens.

*Anisomeridium biforme* (Borrer) R.C.Harris Trentepohliate crust, epiphytic, on various wood and bark surfaces. Common.

*Anisomeridium cf. polypori* (Ellis & Everh.) M.E.Barr Trentepohliate crust, epiphytic on bark of various trees. Uncommon. Differs from typical *A. polypori* in spore size.

*Arthonia anombrophila* Coppins & P.James Trentepohliate crust, epiphytic on bark of *Alnus* overhanging marine shore in sheltered bay. Rare. Newly reported for North America.

*Arthonia didyma* Körber s. str. Trentepohliate crust, epiphytic on *Quercus* trunk. Rare. Perhaps the first report of this species in its strict sense from BC. Other reports are of an atypical form, usually found in boreal forests.

*Arthonia cf. dispersa* (Schrad.) Nyl. Trentepohliate crust, epiphytic on bark of young *Abies grandis*. Rare. Same atypical, large-spored form noted by Noble 1982.

*Arthonia lapidicola* (Taylor) Branth & Rostrup Crust, saxicolous, sheltered aerohaline rocks. Rarely observed, but easily overlooked.

*Arthonia norvegica* (Coppins & Tønsberg) comb. ined. (*Arthothelium norvegicum*) Trentepohliate crust, epiphytic on various bark surfaces. Common on Albert Head.

*Arthonia phaeobaea* (Norman) Norman Crust, saxicolous, aerohaline. Rarely observed, but easily overlooked.

*Arthonia pruinata* (Pers.) Steud. ex A.L.Sm. Trentepohliate crust, epiphytic on decorticated twigs of *Juniperus maritima* by marine shore. Rare. Third report for BC along with populations in nearby parts of Washington, this species is disjunct from its main range in California. Variation in chemistry and spore size suggests that more than one species may be present in the Georgia Depression, though only one form was observed by us at Albert Head.

***Arthonia pyrrhuliza* Nyl.** Trentepohliate crust, epiphytic on bark of *Acer macrophyllum*. Rare. This species remains ambiguous in its definition. The type specimen needs to be examined to determine whether the name has been correctly applied.

***Arthonia radiata* (Pers.) Ach. s. str.** Trentepohliate crust, epiphytic on *Holodiscus*. Occasional. Apparently the typical form, comparing well to the holotype (H!, examined by the lead author at the herbarium of the University of Helsinki).

***Arthonia cf. radiata* (Pers.) Ach.** Trentepohliate crust, epiphytic on twigs of *Acer macrophyllum*. Occasional. This form has a hyaline, scarcely lichenized thallus and erumpent apothecia. It is known only from southern coastal BC and adjacent Washington. It appears to be an undescribed species.

***Arthonia cf. ruana* A.Massal.** Crust, not or weakly lichenized, epiphytic on bark of *Crataegus*. Rare. Uncertain identification, spores not found. Macroscopically identical to a collection of *A. ruana* from central Vancouver Island, which was the first record of the species from North America.

***Arthonia varians* (Davies) Nyl.** Lichenicolous, on *Lecanora rupicola* group. Rare.

***Aspicilia caesiocinerea* (Nyl. ex Malbr.) Arnold** Crust, saxicolous on basalt cliffs and outcrops. Occasional.

***Aspicilia contorta* (Hoffm.) Kremp.** Crust, saxicolous on old cement pilings. Occasional. A calciphile, possibly present at Albert Head due only to the presence of cement structures.

***Aspicilia pacifica* Owe-Larsson & A. Nordin** Crust, saxicolous, aerohaline. Occasional. Needs verification by thin-layer chromatography to verify that the chemistry of the specimen matches that of the species reported. A recently published species previously known from California and Baja California.

***Aspicilia cf. desertorum* (Kremp.) Mereschk.** Crust, saxicolous on cliff. Rare. Not similar in appearance to *A. desertorum* (nor to the similar *A. arida*), but similar in microscopic characters. More work needed to identify to species or to determine whether it is a new species.

***Bacidia absistens* (Nyl.) Arnold** Crust, epiphytic on bark of *Prunus*. Rare.

***Bacidia arceutina* (Ach.) Arnold** Crust, epiphytic on bark of various trees and shrubs. Common.

***Bacidia circumspecta* (Nyl. ex Vainio) Malme** Crust, epiphytic, trunk of very large *Quercus*. Rare.

***Bacidia rubella* (Hoffm.) A.Massal.** Crust, epiphytic on trunk of very large *Quercus*. This species is very common on oaks in the Georgia Depression; it is surprisingly rare at Albert Head.

***Bacidia salmonaea* S.Ekman** Crust, epiphytic, bark of *Acer* and *Quercus*. Rare.

***Baeomyces carneus* Flörke** Mesolichen, terricolous among moss on thin soil over rock. Rare. This species was thought to be rare in BC, but in recent years it has been found to be regionally common in northern regions.

***Biatora rosea* Björk ined.** Crust, epiphytic, on branch of *Pseudotsuga*. Rare. Not known outside the study area. This is one of very few *Biatora* species that has a crystal-inspersed apothecium (crystals visible in polarized light). More work is needed to characterize it and to ensure that it belongs in *Biatora*.

***Buellia alboatra* (Hoffm.) Th.Fr. s. str.** Crust, epiphytic on bark of *Juniperus*, *Pseudotsuga* and *Quercus*, and saxicolous on upland outcrops. Uncommon.

***Buellia cf. alboatra* (Hoffm.) Th. Fr.** Crust, saxicolous, aerohaline. Common. Differs from typical *B. alboatra* in having consistently smaller, more immersed, non-pruinose apothecia. This form is known to us only from the study area.

***Buellia badia* (Fr.) A.Massal.** Crust, saxicolous, aerohaline. Rare. This species is diverse in morphology and habitat, and needs further taxonomic study.

***Buellia christophii* Bungartz** Crust, saxicolous, on cliffs. Rare. New report for BC, previously known from California.

***Buellia cf. dakotensis* (H.Magn.) comb. ined.** Crust, epiphytic on various bark and wood surfaces. Common. The species was originally described as *Rinodina dakotensis*, but probably not best placed in that genus. The identification of the local species is tentative. No other name seems to be available to account for it.

***Buellia fosteri* (Imshaug & Sheard) comb. ined.** Crust, epiphytic, on drift wood. Uncommon. Originally named as *Hafellia fosteri*, but *Hafellia* is an incoherent mix of species, the boundaries of which are blurred when considering some recently discovered species of intermediate morphology.

***Buellia griseovirens* (Turner & Borrer ex Sm.) Almb.** Crust, epiphytic, on various bark and wood surfaces. Occasional.

***Buellia lecideina* Stein** Crust, saxicolous on cliff. Rare. Newly reported for North America, though verification is needed by comparing to specimens from Europe.

***Buellia muriformis* A.Nordin & Tønsberg** Crust, epiphytic, on various phorophytes, but mostly on *Pseudotsuga* trunks. Common.

***Buellia ocellata* (Flotow) Körber** Crust, saxicolous, on cliffs. Rare. Newly discovered for BC.

***Buellia cf. oidaliella* A.Nordin** Crust, epiphytic on *Populus tremuloides*. Rare. Typical *B. oidaliella* is known only from Baja California, and differs from the present species in having a thicker thallus with a better developed cortex.

***Buellia punctata* (Hoffm.) A.Massal.** Crust, mostly epiphytic. Common.

***Buellia* (unknown species)** Crust, saxicolous, aerohaline. Common. This species is part of the *B. aethalea* group, which is poorly known and consisting of more than one species. It is not possible to assign a name to the local form without further study, but it is certain that it is not typical *B. aethalea*.

***Byssoloma* sp. unknown** Crust, epiphytic, on twigs of *Juniperus*. Rare. Known only from the study area.

***Calicium glaucellum* Ach.** Calicioid, epiphytic, on wood of various trees. Occasional.

***Calicium salicinum* Pers.** Calicioid, epiphytic, on wood of *Quercus*. Rare.

***Caloplaca arenaria* (Pers.) Müll. Arg.** Crust, saxicolous, on upland rock outcrop. Rare.

***Caloplaca atrosanguinea* (G.Merr.) I.M.Lamb** Crust, epiphytic, on *Juniperus*. Rare.

***Caloplaca bolacina* (Tuck.) Herre** Crust, saxicolous, aerohaline. Common.

***Caloplaca californica* Zahlbr.** Crust, epiphytic, on drift wood. Occasional. Not yet reported from BC, but known to us from other localities in the province. Previously known from coastal California and Oregon.

***Caloplaca cerinelloides* (Erichsen) Poelt** Crust, epiphytic, on twigs of *Juniperus*. Rare.

***Caloplaca chlorina* (Flotow) H.Olivier** Crust, saxicolous, aerohaline. Uncommon.

***Caloplaca citrina* (Hoffm.) Th.Fr.** Crust, saxicolous, aerohaline. Uncommon.

***Caloplaca demissa* (Körber) Arup & Grube** Crust, saxicolous, on underhang of upland cliff. Rare.

***Caloplaca ferruginea* (Hudson) Th.Fr.** Crust, epiphytic, on various phorophytes, but especially *Juniperus* and *Quercus*. Uncommon.

***Caloplaca flavogranulosa* Arup** Crust, saxicolous, aerohaline, and epiphytic on drift wood. Common.

***Caloplaca flavorubescens* (Hudson) J.R.Laundon group** Crust, epiphytic, mostly on *Quercus*. Occasional.

***Caloplaca fraudans* (Th.Fr.) H.Olivier** Crust, saxicolous, aerohaline and upland, also on drift wood. Common.

***Caloplaca holocarpa* (Hoffm. ex Ach.) A.E.Wade group** Crust, saxicolous, on old cement pilings. Rare.

***Caloplaca inconspecta* Arup** Crust, saxicolous, aerohaline. Rare.

***Caloplaca litoricola* Brodo** Crust, saxicolous, aerohaline. Uncommon.

***Caloplaca ludificans* Arup** Crust, saxicolous, aerohaline. Uncommon. Newly reported for BC, previously known from the Pacific Coast, Baja California to Oregon.

*Caloplaca luteominea* (Tuck.) Zahlbr. var. *luteominea* Crust, saxicolous, aerohaline. Common.

*Caloplaca marina* (Wedd.) Zahlbr. Crust, saxicolous, aerohaline. Common.

***Caloplaca olivacea* Björk ined.** Crust, epiphytic, on various bark surfaces, mostly on twigs. Common. A common, widespread species in coastal British Columbia. Characterized by the broadly attached apothecia, an olive-coloured thallus and outer apothecial rim, and the dull orange apothecial disc and inner rim.

***Caloplaca pyracea* (Ach.) Zwackh group** Crust, epiphytic, on various bark surfaces. Common. The *Caloplaca pyracea* group in North America needs study. Clearly, it represents a multitude of species.

*Caloplaca rosei* Hasse Crust, saxicolous, aerohaline. Common.

***Caloplaca squamosa* (B. de Lesd.) Zahlbr. group** Crust, saxicolous, aerohaline, also (rarely) on upland rocks. Common. The local form produces a purple anthraquinone pigment in addition to orange anthraquinones; purple is a rare colour in lichens, including *Caloplaca*. This species complex was previously unknown from BC.

***Caloplaca stellata* Wetmore & Kärnef.** Crust, saxicolous, upland cliffs. Rare. A species normally seen in interior, continental-climate regions. In need of further study, possibly representing more than one species.

***Caloplaca tricolor* Björk ined.** Crust, epiphytic, on *Juniperus* and *Quercus*. Rare. A poorly known species otherwise recorded by us from very few localities. It is characterized by its pale green, usually rather thick thallus and large apothecia with a green outer apothecial rim, a yellow inner rim, and an orange disc.

*Caloplaca verruculifera* (Vainio) Zahlbr. Crust, saxicolous, aerohaline. Common.

***Caloplaca xanthostigmoidea* (Räsänen) Zahlbr.** Crust, epiphytic, on various bark surfaces, especially *Quercus*. Common. The *C. xanthostigmoidea* group is in need of further study, as it probably represents more than one species in western North America.

***Caloplaca sp. nov. (isidiate corticole)*** Crust, epiphytic, on *Juniperus* trunks. Rare. Known only from the study area. A spectacular species that covers large patches and is both isidiate and richly fertile with bicoloured apothecia (yellow rim, orange disc).

***Candelaria pacifica* M.Westb. & Arup** Mesolichen, epiphytic, on various bark surfaces. Rare. Some occurrences at Albert Head may be *C. concolor* (Dicks.) B. Stein. instead. The differences are subtle unless apothecia are present, but we found only infertile thalli.

***Candelariella efflorescens* R.C.Harris & W.R.Buck** Crust, epiphytic, on *Cytisus*. Rare.

***Candelariella lutella* (Vainio) Räsänen** Crust, epiphytic, on decorticated branch of *Pinus*. Rare. Not previously known from coastal regions in BC.

***Candelariella reflexa* (Nyl.) Lettau** Crust, epiphytic, on twig of very large *Quercus*. Rare. This species has been widely misapplied to other sorediate species in North America, but the typical form is present at Albert Head, and we were aware of two other localities of it in BC.

***Candelariella rosulans* (Müll. Arg.) Zahlbr.** Crust, saxicolous, among moss and other lichens on aerohaline rocks. Occasional. This is the first confirmation of the presence of this species, in its typical sense, from BC. Many previous reports were misapplications to other species.

***Candelariella stellata* Björk ined.** Crust, epiphytic, on bark of *Acer* and *Quercus* twigs. Occasional. A common, widespread species in Coastal British Columbia. Similar to *C. lutella*, but with a better developed thallus, and to *C. vitellina*, but with smaller apothecia.

***Candelariella vitellina* (Hoffm.) Müll.Arg.** Crust, saxicolous and epiphytic, on various surfaces. Occasional.

***Catillaria arbuticola* Björk & R.Batten ined.** Crust, epiphytic, on trunk of large, old *Arbutus*. Rare. Known only from the study area.

***Catillaria atomariooides* (Müll. Arg.) H.Kilias** Crust, saxicolous, among mosses on aerohaline rocks. Rare. Newly reported from BC.

***Catillaria chalybeia* (Borrer) A.Massal.** Crust, saxicolous, aerohaline. Common. One of the most characteristic species of aerohaline rocks.

***Catillaria* (unknown species).** Crust, saxicolous, aerohaline, parasitic (at least in its juvenile stages) on an unknown *Lecania* species. Uncommon.

***Cetrelia cetrarioides* (Duby) W.L.Culb. & C.F.Culb.** Chlorolichen, epiphytic, on trunk of *Alnus*. Rare.

***Chaenotheca chrysocephala* (Ach.) Th.Fr.** Calicioid, epiphytic, on bark of *Pseudotsuga* and *Quercus* trunks. Uncommon.

***Chaenotheca ferruginea* (Turner ex Sm.) Mig.** Calicioid, epiphytic, trunk of *Pseudotsuga*. Rare.

***Chaenotheca stemonea* (Ach.) Müll. Arg.** Calicioid, epiphytic, mostly on *Pseudotsuga* bark and wood. Uncommon.

***Chaenothecopsis* sp. 7 sensu Goward 1999 (“viridis”)** Calicioid, epiphytic, on *Pseudotsuga* wood. Rare.

***Chrysotrichia candelaris* (L.) J.R.Laundon** Crust, epiphytic, on bark of young *Abies*. Rare.

***Chrysotrichia chlorina* (Ach.) J.R.Laundon sensu lato** Crust, epiphytic, on trunk of *Pseudotsuga*. Rare.

***Chrysotrichia granulosa* G.Thor** Crust, epiphytic, on various bark and wood surfaces, mostly near marine shore. Common.

***Cladina arbuscula* (Wallr.) Hale & W.L.Cubl.** Chlorolichen, over moss on rock outcrops. Uncommon.

***Cladina ciliata* (Stirton) Trass** Chlorolichen, over moss, rocky sites. Occasional.

***Cladina portentosa* (Dufour) Follman** Chlorolichen, over moss, rocky sites. Common.

***Cladina rangiferina* (L.) Nyl.** Chlorolichen, over moss on rock outcrops. Uncommon.

***Cladonia asahinae* J.W.Thomson** Chlorolichen, on branches of dwarf “krumholz” *Quercus*. Rare.

***Cladonia bellidiflora* (Ach.) Schaerer** Chlorolichen, among mosses, rocky sites. Occasional.

***Cladonia borealis* S.Stenroos** Chlorolichen, among mosses, rocky sites. Uncommon.

***Cladonia chlorophaea* (Flörke ex Sommerf.) Spreng.** Chlorolichen, various substrates. Occasional.

***Cladonia coniocraea* (Flörke) Spreng.** Chlorolichen, on bark and wood of trunks, limbs and stumps. Common.

***Cladonia cornuta* (L.) Hoffm. ssp. *cornuta*** Chlorolichen, among moss on rock outcrop. Rare.

***Cladonia crispata* ssp. *cetrariiformis* (Delise) Vainio** Chlorolichen, among mosses on rocky sites. Occasional.

***Cladonia cf. decorticata* (Flörke) Spreng.** Chlorolichen, along seepage track shortly above aerohaline. Rare. Macroscopically like *C. decorticata*, but unlike that species, the specimen is PD- (paraphenylenediamine, one of the standard spot-test reagents used in lichenology).

***Cladonia ecmocyna* ssp. *occidentalis* Ahti** Chlorolichen, among moss, rocky sites. Occasional.

***Cladonia fimbriata* (L.) Fr.** Chlorolichen, On bark, especially on *Pseudotsuga*. Common.

***Cladonia macilenta* Hoffm.** Chlorolichen, on wood and bark. Common.

***Cladonia ? merochlorophaea* Asah.** Chlorolichen, on wood of drift log. Rare. Uncertain identification in need of thin-layer chromatography to confirm.

***Cladonia ochrochlora* Flörke** Chlorolichen, various bark and wood surfaces. Common. An odd form is common on driftwood and exposed trees. Its basal squamules are unusually thick, olive-green, and the podetia have more or less discrete soralia like those of *C. cornuta*. It is most likely a stress form.

***Cladonia phyllophora* Hoffm. sensu lato** Chlorolichen, among mosses, rocky sites. Common.

***Cladonia pyxidata* (L.) Hoffm.** Chlorolichen, among mosses, rocky sites. Uncommon.

***Cladonia scabriuscula* (Delise) Nyl.** Chlorolichen, among mosses, rocky sites. Common.

***Cladonia squamosa* Hoffm. chemotype 1** Chlorolichen, on mossy rocks and driftwood. Common.

***Cladonia squamosa* Hoffm. chemotype 2** Chlorolichen, on mossy rocks. Common.

***Cladonia symphycarpia* (Flörke) Fr.** Chlorolichen, on thin soil over rock. Rare.

***Cladonia transcendens* (Vainio) Vainio** Chlorolichen, on bark and wood of trunks and stumps. Common.

***Cladonia umbricola* Tønsberg & Ahti** Chlorolichen, on bark and wood of trunks, stumps and driftwood. Common.

***Cladonia uncialis* (L.) F.H.Wigg.** Chlorolichen, among mosses, rocky sites. Rare.

***Cladonia verruculosa* (Vainio) Ahti** Chlorolichen, among mosses, rocky sites. Uncommon.

***Cladonia unknown species 1*** Chlorolichen, among moss, rocky sites. Uncommon. Differs from *C. furcata* (Huds.) Schrad. in spot test reactions and in having more contorted branches. See also *Cladonia* unknown species 2.

***Cladonia unknown species 2*** Chlorolichen, among mosses, rocky sites. Uncommon. Similar to *C. furcata*, but with secund branches that diverge at a very narrow angle.

***Cliostomum griffithii* (Sm.) Coppins** Crust, epiphytic, on various bark and wood surfaces. Common. One of the dominant crust lichens at Albert Head.

***Coelocaulon* sp. nov. sensu Goward 1999** Chlorolichen, among mosses, rocky sites. Rare.

***Collema cf. auriforme* (With.) Coppins & J.R.Laundon** Cyanolichen, on *Acer* and, especially, *Quercus* trunks. Not *C. auriforme* sensu stricto. Occasional. Typical *C. auriforme* differs in having broader, somewhat thinner lobes, and usually occurs on rock. Very few records of *C. auriforme* from British Columbia appear like typical *C. auriforme*. The form reported here has been found to be locally common in the Georgia Depression. Other, similar forms are present in the interior; those may be conspecific, but more work is needed to elucidate relationships in this group.

***Collema fecundum* Degel.** Cyanolichen, on aerohaline rocks. Common. This is the largest population known to us.

***Collema furfuraceum* (Arnold) Du Rietz** Cyanolichen, on *Juniperus* and *Quercus*. Uncommon.

***Collema limosum* (Ach.) Ach.** Cyanolichen, terricolous, on exposed marine clay shortly above high-tide line, sheltered bay. Rare. Previous reports in northwest North America were all from interior regions. Previously known from interior BC, but never before reported in literature as a part of the BC lichen flora.

***Collema nigrescens* (Hudson) DC.** Cyanolichen, on *Quercus*. Rare.

***Collema maritimum* Björk & R.Batten ined.** Cyanolichen, on aerohaline rocks. Rare. Known only from the study area. Characteristic in having isidia that are globose to cylindric at their innovation stage, but later become flattened. Similar to *C. crispum*, but in that species, the isidia are mostly flattened from the time of innovation, and that species is not known from aerohaline rocks. Similar also to *C. glebulentum*, but that species grows on rock along freshwater shores, and its isidia never flatten.

***Collema subflaccidum* Degel.** Cyanolichen, on bark of *Acer*, *Arbutus*, *Juniperus* and *Quercus*. Common.

***Collemopsidium foveolatum* (A.L.Sm.) F.Mohr** Crust lichen, on barnacles. Rare. Not previously reported from BC, though many records of *C. halodytes* (Nyl.) Grube & B.D.Ryan may be accounted for by this species.

***Cresponea chloroconia* (Tuck.) Egea & Torrente** Crust lichen, trentepohliate, on various bark and wood surfaces. Occasional. This species is found mostly in the eastern North American southern boreal forests (mostly around the Great Lakes), but is also known from disjunct populations in California. Not previously reported from BC, but formerly known to us as unreported populations in the Georgia Depression.

***Cryptothelie* sp. nov.** Cyanolichen, on seepage rocks, shortly above the aerohaline. Known only from the study area.

***Cyphelium inquinans* (Sm.) Trev.** Calicioid, on *Pseudotsuga* bark. Rare.

***Dactylospora deminuta* (Th.Fr.) Triebel** Lichenicole, on various hosts. Occasional. Newly reported from BC, but previously known to us from another locality in the province.

***Dactylospora parasitica* (Flörke ex Spreng.) Zopf** Lichenicole, on *Ochrolechia turneri*. Rare.

***Dermatocarpon leptophyllum* (Nyl.) Zahlbr.** Macrolichen, saxicolous, rocks shortly above the aerohaline. Uncommon. Not previously reported in literature from BC (due to misapplication of other names).

***Dermatocarpon miniatum* var. *complicatum* (Lightf.) Th.Fr.** Macrolichen, saxicolous, on seepage rocks near the aerohaline. Occasional. Previously known from other regions in BC, but never before reported as a part of the province's flora.

***Diploschistes bisporus* var. *ochraceus* (Bagl.) J.Steiner** Crust, saxicolous, aerohaline. Uncommon. First report of this variety from North America. The typical variety may not be present in BC.

***Diploschistes muscorum* (Scop.) R.Sant.** Crust, terricolous, thin soil over rock. Rare. Not previously known from coastal BC.

***Diploschistes scruposus* (Schreb.) Norman** Crust, saxicolous, upland rocks. Uncommon.

***Eopyrenula* sp. nov.** Crust, trentepohliate, epiphytic, on *Abies* and *Alnus*. Known only from the study area. Uncommon.

***Evernia prunastri* (L.) Ach.** Chlorolichen, on various bark surfaces. Occasional.

***Flavopunctelia soredica* (Nyl.) Hale** Chlorolichen, on *Juniperus*. Rare. Many previous reports of *Flavopunctelia flaventior* in BC have been found to be this species instead. Both species are rare in the province.

***Fuscidea austera* (Nyl.) P.James** Crust, saxicolous, aerohaline. Occasional. Newly reported for North America.

***Fuscidea gothoburgensis* (H.Magn.) V.Wirth & Vězda** Crust, saxicolous, upper aerohaline. Rare or uncommon. Newly reported for BC, but previously known to us from other regions in the province.

***Fuscidea ? lightfootii* (Sm.) Coppins & P.James** Crust, epiphytic, on *Alnus*. Rare. *Fuscidea lightfootii* has been previously misreported from BC, based on *Myochroidea porphyrospoda* and perhaps other species. This would be the first correct report, but it requires verification by thin-layer chromatography.

***Fuscopannaria leucostictoides* (Ohlsson) P.M.Jørg.** Cyanolichen, epiphytic, on various bark surfaces. Common. Most of the thalli observed are unusual in having radiating, branching marginal lobes, no isolated areoles, and abundant lobuloid isidia.

***Fuscopannaria maritima* (P.M.Jørg.) P.M.Jørg.** Cyanolichen, saxicolous, aerohaline. Common.

***Fuscopannaria mediterranea* (Tav.) P.M.Jørg.** Cyanolichen, epiphytic. Rare, observed once on *Quercus* trunk. Similar to the species here reported as *F. cf. pulveracea*. See notes under that species.

***Fuscopannaria pacifica* P.M.Jørg.** Cyanolichen, epiphytic, mostly on trunks of old *Arbutus*. Common. Found in recent years to be more common and widespread than previously thought. Never previously published as an addition to the BC flora.

***Fuscopannaria praetermissa* (Nyl.) P.M.Jørg. group** Cyanolichen, among moss on upland rock outcrop. Rare.

***Fuscopannaria cf. pulveracea* (P.M.Jørg. & Henssen) P.M.Jørg.** Cyanolichen, epiphytic, mostly on *Acer*, *Arbutus* (especially), *Quercus* and *Salix*. Common. Typical *F. pulveracea* grows in California and southwest Oregon. The local population differs in having soralia positioned at the lobe tips as well as along the margins.

***Fuscopannaria (unknown species)*** Cyanolichen, epiphytic on *Quercus*. Similar to *F. crustacea*. Too little is known of that rare and possibly mischaracterized species to know whether it may be a match.

***Halecania viridescens* Coppins & P.James** Crust, epiphytic, on bark of *Acer* twigs. Uncommon.

***Herteliana alaskensis* (Nyl.) S.Ekman** Crust, saxicolous, aerohaline. Common. One of the characteristic species of the aerohaline zone.

***Hertelidea botryosa* (Fr) Printzen & Kantvilas** Crust, epiphytic, mostly on wood of logs. Occasional.

***Hymenelia* ? *ceracea* (Arnold) Poelt & Vězda** Crust, saxicolous, on deeply shaded underhang of upland cliff. Little is known of *Hymenelia* and related genera (*Eiglera*, *Ionaspis*) in North America, so assigning species names in BC is usually tenuous at best. Badly in need of taxonomic work in the region.

***Hyperphyscia adglutinata* (Flörke) H. Mayrhofer & Poelt** Chlorolichen, on trunk of *Quercus*. Rare. Known previously from a wide region of the northern hemisphere, but not from northwestern North America.

***Hypocenomyce anthracophila* (Nyl.) P. James & Gotth. Schneider** Mesolichen, epiphytic, on trunk of *Pseudotsuga*. Rare.

***Hypocenomyce friesii* (Ach.) P. James & Gotth. Schneider** Mesolichen, epiphytic, on trunk of *Pseudotsuga*. Rare.

***Hypocenomyce scalaris* (Ach. ex Lilj.) M. Choisy** Mesolichen, epiphytic, on trunk of *Pseudotsuga*. Uncommon.

***Hypogymnia apinnata* Goward & McCune** Chlorolichen, on twigs of various trees. Occasional.

***Hypogymnia enteromorpha* (Ach.) Nyl.** Chlorolichen, on bark of various trees. Occasional.

***Hypogymnia heterophylla* L. Pike** Chlorolichen, on bark of *Pinus contorta* by marine shore, where well exposed to light and wind. Rare. Easily confused with *H. imshaugii*, which differs in having mostly terete, rather than a mix of terete and dorsiventrally compressed lobes, and a white rather than black medullary ceiling (dorsal interior surface of the hollow lobe interior). That species is also less ecologically restricted.

***Hypogymnia imshaugii* Krog** Chlorolichen, on twigs of various trees and shrubs. Occasional.

***Hypogymnia physodes* (L.) Nyl.** Chlorolichen, on bark of various phorophytes, sometimes also on rock. Common.

***Hypogymnia tubulosa* (Schaer.) Hav.** Chlorolichen, on twigs of various trees and shrubs. Uncommon.

***Hypotrachyna afrorevoluta* (Krog & Swinscow) Krog & Swinscow** Chlorolichen, on bark of wind-fall *Pseudotsuga* branches. Rare. Newly reported for northwestern North America. Differs from *H. revoluta* in having its soralia innovations developing from wart-like pustules, and darker lower surface.

***Imshaugia aleurites* (Ach.) S.F. Meyer** Chlorolichen, on wood. Rare. A characteristic species of boreal forest, disjunct in the Georgia Depression.

***Jamesiella anastomosans* (P. James & Vězda) Lücking, Sérus. & Vězda** Crust, epiphytic, on trunk of old *Arbutus* trunk. Rare.

***Japewia subaurifera* Muhr & Tønsberg** Crust, epiphytic, on bark of *Pseudotsuga*. Uncommon.

***Lecanactis abietina* (Ach.) Körber** Crust, trentepohliate, on bark of *Abies*. Rare, but dominant on a large part of the sole tree where it was found.

**Lecania cyrtella** (Ach.) Th.Fr. s. str. Crust, epiphytic, trunk dead *Acer macrophyllum*. A rare species in BC; nearly all prior records from North America are *L. madida* Reese-Næsborg & Björk.

**Lecania dudleyi** Herre Crust, saxicolous, aerohaline. Occasional. Host to an unknown *Catillaria*, discussed above.

**Lecania fuscella** (Schaerer) Körber Crust, epiphytic, twigs of *Juniperus*. Rare.

**Lecania naegelii** (Hepp) Diederich & van den Boom Crust, epiphytic, twigs of *Holodiscus* and *Juniperus*. Occasional.

**Lecania sitchensis** T. Sprib. et al. ined. Crust, saxicolous, aerohaline. Otherwise known only from the Alaska Panhandle. Occasional.

**Lecanora albella** (Pers.) Ach. var. *albella* Crust, epiphytic, branch of *Quercus*. Rare. Previously known from BC, but never published as an addition to the province's flora.

**Lecanora albellula** Nyl. s. str. Crust, epiphytic, on wood, especially of stumps. Rare. First published report from BC, though previously known to be widespread and common in the province.

**Lecanora cf. albellula** Nyl. (smooth rim, apothecia widely scattered) Crust, epiphytic, on drift wood. Rare. Differs from typical *L. albellula* in having apothecia widely scattered and with a smooth rather than beaded apothecial rim.

**Lecanora cf. alboflavida** Taylor Crust, saxicolous, on upland cliff. Rare.

**Lecanora allophana** Nyl. f. *allophana* Crust, epiphytic, on decorticated *Juniperus* branch. This and f. *soralifera* are unusual records for coastal regions. Other records in BC are mostly from the Rocky Mountains and far northeast. Rare.

**Lecanora allophana** f. *sorediata* Vain. Crust, epiphytic, on stump of *Pseudotsuga*. See notes under f. *allophana*. Found fertile, allowing easy confirmation of its identity. Rare.

**Lecanora bicincta** Ramond Crust, saxicolous, on upland rocks. Rare. Previously known to be common in BC, but not reported for the province in literature.

**Lecanora carpinea** (L.) Vainio Crust, epiphytic, on *Populus tremuloides* and *Quercus* branches. Uncommon.

**Lecanora cenisia** Ach. Crust, saxicolous, aerohaline. Common.

**Lecanora confusa** Almb. Crust, epiphytic, various acidic bark surfaces, especially conifers branches and twigs. Common, one of the most abundant crustose species at Albert Head.

**Lecanora contractula** Nyl. Crust, saxicolous, aerohaline. Common. Though found to have been misapplied in North America (Brodo 2010), the local population identifies as *L. contractula* s. str.

***Lecanora dispersa* (Pers.) Sommerf.** Crust, saxicolous, on old cement pilings. Uncommon.

***Lecanora expallens* Ach.** Crust, epiphytic, various bark and wood surfaces. Common, one of the most abundant crustose species at Albert Head, particularly along the shoreline.

***Lecanora farinaria* Borrer** Crust, epiphytic, various bark and wood surfaces. Common, one of the most abundant crustose species at Albert Head, particularly in upland areas. Though known from BC already, it has never been reported in literature.

***Lecanora hagenii* (Ach.) Ach.** Crust, epiphytic, on bark of *Populus tremuloides*. Rare or uncommon.

***Lecanora hybocarpa* (Tuck.) Brodo** Crust, epiphytic, on bark of *Acer*, *Juniperus* and *Quercus*. Occasional.

***Lecanora ? hypopta* (Ach.) Vainio** Crust, epiphytic, on wood of drift log. Rare. The *Lecanora hypopta* group is under taxonomic revision currently. Typical *L. hypopta* may not occur in North America (pers. comm. T. Spribille).

***Lecanora ? jamesii* J.R.Laundon** Crust, epiphytic, on drift wood. Occasional. Thin-layer chromatography is required to confirm the identification.

***Lecanora laxa* (Śliwa & Wetmore) Printzen** Crust, epiphytic, on trunk of dead *Quercus*. Rare.

***Lecanora mughicola* Nyl.** Crust, epiphytic, on wood of drift log. Uncommon.

***Lecanora muralis* (Schreb.) Rabenh. group (aerohaline form with lifting and overlapping edges)** Crust, saxicolous, aerohaline. Common.

***Lecanora muralis* (Schreb.) Rabenh. group (upland)** Crust, saxicolous, upland rocks. Uncommon.

***Lecanora orae-frigidae* R.Sant.** Crust, epiphytic, on drift wood. Uncommon.

***Lecanora pacifica* Tuck.** Crust, epiphytic, on various bark surfaces. Highly variable. Common, one of the most abundant crust lichen species at Albert Head.

***Lecanora persimilis* (Th.Fr.) Nyl.** Crust, epiphytic, on twigs of deciduous trees. Common.

***Lecanora poliophaea* (Wahlenb.) Ach.** Crust, saxicolous, aerohaline. Common.

***Lecanora polytropa* (Hoffm.) Rabenh. group** Crust, saxicolous, on old cement pilings and upland rocks. Rare.

***Lecanora rupicola* (L.) Zahlbr.** Crust, saxicolous, on upland rocks. Occasional.

***Lecanora ? salina* H.Magn.** Crust, saxicolous, aerohaline. Common. In need of further study to confidently apply an identification.

***Lecanora straminea* Ach.** Crust, saxicolous, aerohaline where strongly nitrogen-enriched by bird guano. Uncommon.

***Lecanora xylophila* Hue** Crust, epiphytic, on wood of drift logs. Rare.

***Lecanora zosterae* (Ach.) Nyl.** Crust, epiphytic, on wood of drift logs. Rare.

***Lecanora* sp. nov.** Crust, saxicolous, aerohaline. Uncommon. Similar to *L. schofieldii*, but with scattered, smaller apothecia.

***Lecidea albofuscescens* Nyl. group, unknown species** Crust, epiphytic, on large *Juniperus*. Unlike *L. albofuscescens*, the present species lacks oil inspersion in the apothecia, and it has a different spore size and shape.

***Lecidea atrobrunnea* (Lam. & DC.) Schaerer group** Crust, saxicolous, upland rocks. Uncommon. The *L. atrobrunnea* group is poorly known, thus it may be best at this point to apply the name in its broadest sense.

***Lecidea auriculata* Th.Fr.** Crust, saxicolous, upland rocks. Common.

***Lecidea beringeriana* (A.Massal.) Nyl. group** Crust, epiphytic, on *Quercus* trunks. Possibly an undescribed species, differing from typical *L. beringeriana* in its squamulose thallus, smaller spores, and thick gelatinous epispose. Known only from Albert Head.

***Lecidea erythrophaea* Flörke ex Sommerf.** Crust, epiphytic, on trunks of *Acer*, *Arbutus* and *Quercus*. Uncommon.

***Lecidea hypnorum* (Anzi) Th.Fr.** Crust, epiphytic, on trunks of old *Arbutus*. Uncommon.

***Lecidea lapicida* (Ach.) Ach.** Crust, saxicolous, on upland rocks. Common.

***Lecidea mannii* Tuck.** Crust, saxicolous, on upland rocks. Uncommon.

***Lecidea tessellata* Flörke** Crust, saxicolous, on upland rocks. Rare.

***Lecidea* unknown species** Crust, saxicolous, on upland rocks. Rare.

***Lecidella anomalooides* (A.Massal.) Hertel & H.Kilias** Crust, saxicolous, upland rocks. Rare. Newly reported for BC.

***Lecidella asema* (Nyl.) Knopf & Hertel** Crust, saxicolous, aerohaline. Common.

***Lecidella elaeochroma* (Ach.) Choisy** Crust, epiphytic, smooth bark. Common.

***Lecidella euphorea* (Flörke) Hertel** Crust, epiphytic, bark of deciduous trees. Occasional.

***Lecidella ? subviridis*** Tønsberg Crust, epiphytic, trunk of old *Arbutus*. Rare.

***Lecidella unknown species*** Crust, saxicolous, aerohaline. Rare. Has the macroscopic appearance of *Lecidea lapicida*.

***Lempholemma polyanthes* (Bernh.) Malme** Cyanolichen, terricolous, along seepage track. Rare. Recently found to be common and widespread in BC. Not previously known from coastal regions.

***Lepraria diffusa* (J.R.Laundon) Kukwa** Crust, epiphytic, on trunk of old, leaning *Populus tremuloides*. Rare.

***Lepraria elobata*** Tønsberg Crust, saxicolous, cliff underhang. Rare.

***Lepraria finkii* (B. de Lesd.) R.C.Harris** Crust, epiphytic, on old *Juniperus*. Rare.

***Lepraria jackii*** Tønsberg Crust, epiphytic, on trunks of various trees. Common.

***Lepraria torii* Pérez-Ortega & T. Sprib.** Crust, epiphytic, on trunks of *Pseudotsuga*. Occasional.

***Leptogium cellulosum* P.M.Jørg. & Tønsberg** Cyanolichen, epiphytic, trunks of deciduous trees. Rare.

***Leptogium gelatinosum* (With.) J.R.Laundon** Cyanolichen, terricolous, among moss on rock outcrops. Uncommon.

***Leptogium intermedium* (Arnold) Arnold sensu lato (epiphytic form)** Cyanolichen, epiphytic, on deciduous trees, especially trunks of old *Arbutus*. Common. Typical *L. intermedium* grows on soil and (when dry) has glossier, darker brown lobes that, when well developed, have more crowded apothecia. More work is needed to determine whether the epiphytic form is conspecific. The epiphytic form is known mostly from humid forest in BC and northern Idaho.

***Leptogium lichenoides* (L.) Zahlbr.** Cyanolichen, terricolous and saxicolous, among mosses over rock. Uncommon.

***Leptogium nanum* Herre** Cyanolichen, terricolous, on bare marine clay, shortly above high tide line. Rare. Not previously reported from BC, though it has been known to us from other localities in BC.

***Leptogium palmatum* (Hudson) Mont.** Cyanolichen, saxicolous, a single large patch found, on a cliff face. Rare.

***Leptogium planum* Björk & R.Batten ined.** Cyanolichen, terricolous, on bare marine clay, shortly above high tide line in sheltered bay. Rare. Characterized by its small, scarcely branched lobes that are fully adnate to the substrate.

***Leptogium platynum* (Tuck.) Herre** Cyanolichen, saxicolous, on upland cliff near marine shore, on a calcareous seam. Rare.

***Leptogium polycarpum* P.M.Jørg. & Goward** Cyanolichen, epiphytic, among mosses on trunks of deciduous trees. Occasional.

***Leptogium pseudofurfuraceum* P.M.Jørg. & Wallace** Cyanolichen, epiphytic, trunk of old *Quercus*. Rare.

***Leptogium pulvinatum* (Hoffm.) Cromb.** Cyanolichen, saxicolous and epiphytic, on cliffs, where more mound-forming, and on trunks of *Quercus*, where lobes are more scattered and procumbent. Uncommon. Newly reported from BC, but previously known to us to be widespread and common. The epiphytic form may be the same as that named as *L. quercicola* Otálora, Aragón, Martínez & M.C. Molina from Spain, a species that was split from *L. pulvinatum*, but that determination could not be made without examining spore size, but only infertile material has been found in BC.

***Leptogium saturninum* (Dickson) Nyl.** Cyanolichen, epiphytic, trunk of old, leaning *Populus tremuloides*. Rare.

***Leptogium teretiusculum* (Wallr.) Arnold** Cyanolichen, epiphytic, trunks of old deciduous trees. Rare.

***Leptogium* sp. nov. “aerohaline microfruticose”** Cyanolichen, saxicolous, aerohaline. Rare.

***Leptorhaphis* unknown species** Crust, not or weakly lichenized, on stems of *Amelanchier florida*. Rare.

***Lichenomphalia umbellifera* (L.:Fr.) Redhead, Lutzoni, Moncalvo & Vilgalys** Basidiolichen, terricolous, among mosses on thin soil on rock outcrops. Uncommon.

***Lichenomphalia velutina* (Quél.) Redhead, Lutzoni, Moncalvo & Vilgalys** Basidiolichen, terricolous, among mosses on thin soil on rock outcrop. Rare. Normally reported in mountainous or boreo-arctic regions.

***Limonaea californica* (Tuck.) Sparrius** Crust, epiphytic, on decorticated branches of *Juniperus*. Rare. New report for Canada. This population plus one in adjacent Washington are together disjunct from the main range of the species, which otherwise ranges north to the central California.

***Lobaria pulmonaria* (L.) Hoffm.** Cyanolichen (tripartite), epiphytic, on deciduous trees. Common.

***Lobaria scrobiculata* (Scop.) DC.** Cyanolichen, epiphytic, on branches of *Quercus*. Common.

***Massalongia carnosa* (Dickson) Körber** Cyanolichen, saxicolous, on upland cliffs and outcrops, rare on aerohaline rocks. Occasional.

***Melanelia glabratula* (Lamy) Sandler & Arup** Chlorolichen, epiphytic, on various bark and wood surfaces. Common. Most or all previous records of *M. fuliginosa* from BC are this species instead.

***Melanelia subaurifera* (Nyl.) O.Blanco et al.** Chlorolichen, epiphytic, on various bark and wood surfaces. Common.

***Melanohalea elegantula* (Zahlbr.) O.Blanco et al.** Chlorolichen, epiphytic, observed on *Arbutus* and *Juniperus*. Uncommon.

***Melanohalea exasperatula* (Nyl.) O.Blanco et al.** Chlorolichen, epiphytic, on various bark and wood surfaces. Occasional.

***Melanohalea subelegantula* (Essl.) O.Blanco et al.** Chlorolichen, epiphytic, on *Pinus*. Rare.

***Menegazzia subsimilis* (H.Magn.) R.Sant.** Chlorolichen, epiphytic, on *Alnus*. Rare.

***Micarea denigrata* (Fr.) Hedl.** Crust, epiphytic, on wood. Occasional.

***Micarea cf. elachista* (Körber) Coppins & R.Sant.** Crust, epiphytic, on trunk of old *Arbutus*. Rare.

***Micarea ? farinosa* Coppins & Aptroot** Crust, epiphytic, over moss on trunk of large *Acer*. Rare. If confirmed, would be a new report for North America. Requires thin-layer chromatography to verify.

***Micarea peliocarpa* (Anzi) Coppins & R.Sant.** Crust, epiphytic, on various bark and wood surfaces. Uncommon.

***Micarea prasina* Fr. s. lato.** Crust, epiphytic, on various bark and wood surfaces, also represented by a form on aerohaline rocks. These require further chemical tests to determine them to the species of the *M. prasina* complex. These are likely a mix of *M. micrococca* and *M. prasina* s. str. Occasional.

***Micarea unknown species*,** Crust, epiphytic, on *Arbutus* twigs. Rare. Part of the greater *M. prasina* group.

***Microcalicium disseminatum* (Ach.) Vainio** Calcioid, epiphytic, on wood. Rare.

***Montanelia disjuncta* (Erichsen) Divakar, A. Crespo, Wedin & Essl.** Chlorolichen, on upland rock outcrops. Uncommon.

***Montanelia panniformis* (Nyl.) Divakar, A. Crespo, Wedin & Essl.** Chlorolichen, on upland rock outcrops. Uncommon.

***Montanelia sorediata* (Ach.) Divakar, A. Crespo, Wedin & Essl.** Chlorolichen, on upland rock outcrops. Common.

***Mycoblastus caesius* (Coppins & P.James) Tønsberg** Crust, epiphytic, on *Alnus*. Rare.

***Mycoporum antecellans* (Nyl.) R.C.Harris** Crust, epiphytic, on smooth bark of deciduous trees. Apparently rare.

***Myochroidea porphyrospoda* (Anzi) Printzen, T.Sprib. & Tønsberg** Crust, epiphytic, on deciduous trees. Uncommon.

***Neofuscelia verruculifera* (Nyl.) Essl.** Chlorolichen, on upland rock outcrops, seldom on aerohaline rocks. Common.

***Nephroma helveticum* ssp. *sipeanum* (Gyeln.) Goward & Ahti** Cyanolichen, epiphytic, on trunk of large, leaning *Populus tremuloides*. Rare.

***Nephroma laevigatum* Ach.** Cyanolichen, epiphytic and saxicolous, very common on a wide variety of substrates. Common.

***Nephroma resupinatum* (L.) Ach.** Cyanolichen, epiphytic, on trunk of large, leaning of *Populus tremuloides*. Rare.

***Niebla cephalota* (Tuck.) Rundel & Bowler** Chlorolichen, on *Juniperus*. Rare. Likely to be considered by COSEWIC for possible listing under SARA.

***Normandina acroglypta* (Norman) Aptroot** Crust, epiphytic, on trunks of large, old *Arbutus* and *Quercus*. Occasional. Newly reported for North America.

***Normandina pulchella* (Borrer) Nyl.** Mesolichen, epiphytic, on deciduous trees. Common.

***Ochrolechia cf. africana* Vainio** Crust, epiphytic, on *Quercus*. Rare. Possibly an undescribed species. Like *O. africana*, its apothecial rim medulla is a C+ red, but unlike that species, the apothecia are very large (as much as 5 mm wide). More work is needed to characterize this population, but clearly, it is something previously unknown in BC.

***Ochrolechia androgyna* (Hoffm.) Arnold** Crust, epiphytic, on *Pseudotsuga*, also observed once on moss over rock. Rare.

***Ochrolechia arborea* (Kreyer) Almb.** Crust, epiphytic, on trunk of *Arbutus*. Rare.

***Ochrolechia farinacea* Howard** Crust, epiphytic, mostly on *Quercus*. Common.

***Ochrolechia laevigata* (Räsänen) Versegely ex Kukwa** Crust, epiphytic, mostly on *Alnus*. Common.

***Ochrolechia oregonensis* H.Magn.** Crust, epiphytic, mostly on *Pseudotsuga*. Common.

***Ochrolechia pseudopallescens* Brodo** Crust, epiphytic, on *Pseudotsuga*. Apparently rare.

***Ochrolechia subathallina* H.Magn.** Crust, epiphytic, on *Alnus*. Occasional.

***Ochrolechia subpallescens* Versegely** Crust, epiphytic, on various deciduous trees. Occasional.

***Ochrolechia turneri* (Sm.) Hasselrot** Crust, epiphytic, mostly on *Juniperus*, observed once on *Quercus*. Rare. Previous reports from BC were found to be based on other species. This is the first report of the species, in its strict sense, from the province.

***Ochrolechia upsaliensis* (L.) A.Massal.** Crust, terricolous, over moss, *Selaginella* and detritus over rock outcrops. Uncommon.

***Opegrapha atra* Pers.** Crust, trentepohliate, epiphytic, on *Quercus*. Rare. First published report from BC.

***Opegrapha herbarum* Mont.** Crust, trentepohliate, epiphytic, on various bark and wood surfaces. Common. Highly variable. Part of a complex in need of further study.

***Opegrapha varia* Pers.** Crust, trentepohliate, epiphytic, on *Populus* and *Quercus*. Occasional.

***Opegrapha vulgata* Ach.** Crust, trentepohliate, on various shrub and tree species. Uncommon.

***Ophioparma rubricosa* (Müll. Arg.) S.Ekman** Crust, epiphytic, on *Pseudotsuga* wood and bark. Uncommon.

***Pannaria rubiginosa* (Thunb.) Delise** Cyanolichen, epiphytic, on *Quercus*. Rare.

***Parmelia hygrophila* Goward & Ahti** Macrolichen, epiphytic, on various bark and wood substrates. Common.

***Parmelia saxatilis* (L.) Ach. s. lat.** Macrolichen, epiphytic and saxicolous. Common. Possibly more than one species present.

***Parmelia sulcata* Taylor** Macrolichen, epiphytic, on various bark and wood substrates. Seldom also on rock or over mosses. Common.

***Parmeliopsis ambigua* (Wulf.) Nyl.** Macrolichen, epiphytic, on various bark and wood substrates. Occasional.

***Parmeliopsis hyperopta* (Ach.) Arnold** Macrolichen, epiphytic, on various bark and wood substrates. Uncommon.

***Parmotrema arnoldii* (Du Rietz) Hale** Macrolichen, epiphytic, on branches and twigs of various trees. Uncommon.

***Parmotrema crinitum* (Ach.) M.Choisy** Macrolichen, epiphytic, branches of *Juniperus* and *Pseudotsuga*. Rare.

***Parmotrema perlatum* (Hudson) M.Choisy** Macrolichen, epiphytic, on *Juniperus*. Rare.

***Peltigera britannica* (Gyeln.) Holt.-Hartw. & Tønsberg** Cyanolichen (tripartite), over moss on rock. Occasional.

***Peltigera collina* (Ach.) Schrad.** Cyanolichen, epiphytic on *Populus* and *Quercus*. Seldom also on rock. Common.

***Peltigera membranacea* (Ach.) Nyl.** Cyanolichen, over mosses on rock. Uncommon.

***Peltigera neopolydactyla* (Gyeln.) Gyeln.** Cyanolichen, over mosses on rock. Rare.

***Peltigera pacifica* Vitik.** Cyanolichen, saxicolous, on shaded cliff. Rare.

***Pertusaria amara* (Ach.) Nyl.** Crust, epiphytic and saxicolous, on various substrates. Common.

***Pertusaria gelatinosa* Björk ined.** Crust, epiphytic, on various bark and wood surfaces. Part of the *P. alpina* group. Common.

***Pertusaria ophthalmiza* (Nyl.) Nyl. s. lat.** Crust, epiphytic, on various bark surfaces. Occasional.

***Pertusaria pseudographis* Björk ined.** Crust, epiphytic, mostly on smooth bark of deciduous trees. Occasional. This species is widespread in coastal regions (and rare in the wet interior in Idaho), from Oregon to southern BC. It is part of the *P. ophthalmiza* group, differing from all other species in its slit-like exposure of the apothecial disc, that slit being sinuose and often once-branched.

***Pertusaria subambigens* Dibben** Crust, epiphytic, on twigs of acid-bark trees. Uncommon.

***Pertusaria* sp. nov. (coralloid isidia)** Crust, epiphytic, on decorticated branches of *Juniperus* and *Pinus*. Known only from the study area. Rare. No other *Pertusaria* in North America or Europe is known to produce such densely packed, tall, branching isidia. Placement in *Pertusaria* is tentative, as no fertile individuals were found. It appears similar to *Loxosporopsis corallifera*, but is a duller, off-white colour, and is richly packed with norstictic acid (K+ yellow changing to red, forming clusters of red, needle-shaped crystals).

***Pertusaria* (unknown species)** Crust, saxicolous, on aerohaline rock. Rare. Generic identity uncertain, as no fertile specimens were found. It has round, convex soralia, and is C+ bright yellow, UV.

***Phaeophyscia orbicularis* (Necker) Moberg** Chlorolichen, epiphytic and saxicolous, on various substrates. Occasional.

***Phaeophyscia sciastra* (Ach.) Moberg** Chlorolichen, saxicolous, on upland as well as aerohaline rocks. Uncommon.

***Phlyctis argena* (Spreng.) Flotow** Crust, epiphytic, on bark of various trees and large shrubs. Occasional.

***Phlyctis speirea* G.Merr.** Crust, epiphytic, on bark of various trees. Uncommon.

***Physcia adscendens* (Fr.) Olivier** Chlorolichen, epiphytic on various phorophytes, and occasionally on aerohaline rocks. Common.

***Physcia alnophila* (Vainio) Loht., Moberg, Myllys & Tehler** Chlorolichen, bark of deciduous shrubs. Uncommon.

***Physcia caesia* (Hoffm.) Lettau** Chlorolichen, saxicolous, mostly on aerohaline rocks. Common, a characteristic species of the aerohaline zone.

***Physcia dubia* (Hoffm.) Lettau** Chlorolichen, saxicolous, mostly on aerohaline rocks. Uncommon.

***Physcia tenella* Moberg** Chlorolichen, epiphytic on twigs, also on aerohaline rocks. Common.

***Physconia americana* Essl.** Chlorolichen, epiphytic on *Quercus*. Occasional.

***Physconia enteroxantha* (Nyl.) Poelt** Chlorolichen, epiphytic on various deciduous trees, also saxicolous on various rock surfaces. Common.

***Physconia ? isidiigera* (Zahlbr.) Essl.** Chlorolichen, epiphytic, on *Quercus*. Rare. Identification uncertain. If confirmed, would be a new report from BC.

***Physconia perisidiosa* (Erichs.) Moberg** Chlorolichen, on *Quercus*. Occasional.

***Physconia unknown species*** Chlorolichen, on aerohaline rocks. Rare. Unusual among *Physconia* in its small size, small isidia produce in central parts of the thalli, short rhizines, median bands of pruina (similar to many *Anzia* species in that regard), its occurrence on aerohaline rocks. Known only from the study area.

***Placopsis gelida* (L.) Lindsay** Crust, saxicolous, on upland rock outcrop. Rare.

***Placynthiella dasaea* (Stirton)** Tønsberg Crust, epiphytic, on drift wood. Uncommon.

***Platismatia glauca* (L.) W.L.Culb. & C.F.Culb.** Macrolichen, epiphytic, on acidic bark. Common.

***Platismatia herrei* (Imshaug)** W.L.Culb. & C.F.Culb. Macrolichen, epiphytic, on acidic bark. Common.

***Plectocarpon lichenum* (Sommerf.) D.Hawkesw.** Lichenicole, on *Lobaria pulmonaria* on branches of *Quercus*. Rare.

***Polychidium muscicola* (Sw.) Gray** Cyanolichen, terricolous, among mosses on thin soil over rock and cliffs. Rare.

***Polycoccum microstictum* (Leighton ex Mudd) Arnold** Lichenicole, on *Aspicilia pacifica* on aerohaline rocks. Rare.

***Polycoccum unknown species*** Lichenicole, on *Aspicilia pacifica* on aerohaline rocks. Rare. Differing from *P. microsticticum* in several regards, including spore size and septation, but found growing on the same host.

***Porpidia contraponenda* (Arnold) Knopf & Hertel** Crust, saxicolous, on upland rocks. Occasional.

***Porpidia soredizodes* (Lamy ex Nyl.) J.R.Laundon** Crust, saxicolous, on upland rocks. Uncommon.

***Porpidia cf. speirea* (Ach.) Kremp.** Crust, saxicolous, on rocks shortly above the aerohaline zone. Uncommon. *Porpidia speirea* grows on calcareous rocks, mostly in continental-climate regions, and typically has a larger, continuous thallus. The form found at Albert Head forms small, interrupted patches.

***Porpidia tuberculosa* (Sm.) Hertel & Knoph** Crust, saxicolous, on boulder in *Arbutus* stand. Rare.

***Protopannaria pezizoides* (Weber) P.M.Jørg. & S.Ekman** Cyanolichen, terricolous, on thin soil over rock shortly above the aerohaline zone. Rare.

***Protoparmelia ochrococca* (Nyl.) P.M.Jørg, Rambold & Hertel** Crust, epiphytic, on *Pinus* and *Pseudotsuga*. Common.

***Psammina cf. inflata* Earl.-Benn. & D.Hawkes.** Lichenicole, on *Anisomeridium biforme*. Rare. A sporodochiate species with conidia formed of clusters of oblate cells; sporodochia white, tiny and inconspicuous. Generic identity uncertain.

***Pseudocyphellaria anomala* Brodo & Ahti** Cyanolichen, epiphytic, on *Quercus*. Rare.

***Pseudocyphellaria anthraspis* (Ach.) H.Magn.** Cyanolichen, epiphytic, on *Quercus*. Rare.

***Pseudosagedia aenea* (Wallr.) Hafellner & Kalb** Crust, trentepohliate, epiphytic, on various tree and shrub species. Occasional.

***Pseudosagedia chlorotica* (Ach.) Hafellner & Kalb s. str.** Crust, trentepohliate, on upland rocks or shortly above the aerohaline. Common.

***Pseudosagedia* (unknown species)** Crust, trentepohliate, on rocks shortly above the aerohaline. Differs from typical *P. chlorotica* in having a whitish thallus and larger spores.

***Psora nipponica* (Zahlbr.) Gotth. Schneid.** Mesolichen, terricolous, on thin soil over upland rock. Rare.

***Pterygiopsis concordatula* (Nyl.) Divakar, A. Crespo, Wedin & Essl.** Cyanolichen, saxicolous, on seepage rocks in the upper aerohaline. Rare. Previously unknown from BC.

***Punctelia perreticulata* (Räsänen) G.Wilh. & Ladd** Chlorolichen, mostly on *Pseudotsuga*, mostly in the upper canopy, found by searching windfall. Occasional.

***Punctelia stictica* (Duby) Krog** Chlorolichen, saxicolous on rocks in or near the aerohaline zone, occasionally also on bark of conifers near rocky marine shores. Occasional.

***Pycnora leucococca* (R.Sant.) R.Sant.** Crust, epiphytic, on bark of deciduous trees. Uncommon.

***Pycnora sorophora* (Vainio) Hafellner** Crust, epiphytic, on conifer bark and wood. Uncommon.

***Pyrenopsis subareolata* Nyl.** Cyanolichen, saxicolous, on seepage tracks in the upper aerohaline. Rare. Previously unknown from North America.

***Pyrrhospora quernea* (Dickson) Körber** Crust, epiphytic, on various bark and wood surfaces near marine shores. Common, one of the most abundant crustose species near marine shores.

***Ramalina dilacerata* (Hoffm.) Hoffm.** Macrolichen, epiphytic, observed only on *Holodiscus* in thicket. Rare.

***Ramalina farinacea* (L.) Ach.** Macrolichen, epiphytic, on bark of various phorophytes. Common.

***Ramalina menziesii* Taylor** Macrolichen, epiphytic, on conifers near marine shores, observed only near the far tip of the peninsula. Occasional (very abundant in a few near-shore localities on the peninsula).

***Ramalina subleptocarpha* Rundel & Bowler** Macrolichen, epiphytic, on twigs and branches of various trees and shrubs, mostly near marine shores. Uncommon.

***Ramalina* sp. 2 sensu Goward 1999** Macrolichen, epiphytic, on bark of various trees, mostly near marine shores. Common.

***Ramalina* (unknown species)** Macrolichen, epiphytic, on bark of *Pseudotsuga* trunks near marine shores. Rare. Differs from *R. canariensis* in its lack of chondroid strands, and in having the rims of its soralia slightly raised on a podium of corticate tissue. In this latter regard, it differs also from *R. farinacea* and *R. sp. 2* sensu Goward 1999, plus its broader lobes and numerous laminal soralia. This species is known to us only from the study area.

***Ramboldia cinnabrina* (Sommerf.) Kalb, Lumbsch & Elix** Crust, epiphytic, on *Alnus*. Rare.

***Rhizocarpon bolanderi* (Tuck.) Herre** Crust, saxicolous, on upland rocks. Common.

***Rhizocarpon geminatum* Körber** Crust, saxicolous, on upland and upper-aerohaline rocks. Common.

***Rhizocarpon cf. geminatum* Körber** Crust, saxicolous, on aerohaline rocks. Uncommon? Differs from *R. geminatum* in its larger, browner areoles that lack the characteristic PD+ spot-test reaction.

***Rhizocarpon intermediellum* Räsänen** Crust, saxicolous, on rocks shortly above the aerohaline zone. Rare. This was the only yellow *Rhizocarpon* found at Albert Head in 2013. Most regions in coastal BC having siliceous rock have abundant and diverse yellow *Rhizocarpon* species.

***Rhizocarpon richardii* (Lamy ex Nyl.) Zahlbr.** Crust, saxicolous, on aerohaline rocks. Uncommon. Newly reported for North America.

***Rhizocarpon* (unknown species 1)** Crust, saxicolous, on mossy upland rock outcrop. Rare. Distinguished by having its spores crenate in outline due to strongly bulging cells and the lack of any identifiable gelatinous perispore, and in having a diffuse thallus.

***Rhizocarpon* (unknown species 2)** Crust, saxicolous, on aerohaline rocks. Rare. Thallus of contiguous, cornered areoles, all spot tests negative except CK+ orange, spores muriform, brown only when overmature, and apothecial sections K+ yellow (no crystals).

**Rhizocarpon (unknown species 3)** Crust, saxicolous, on aerohaline rocks. Rare. Similar to unknown 2, but with spores that remain colourless and that have a thick gelatinous perispore, and apothecial sections K-.

**Rhizocarpon (unknown species 4)** Crust, saxicolous, aerohaline rocks. Rare. Characterized by having a brown thallus with small areoles and apothecia, muriform spores that remain colourless even when overmature.

**Rinodina archaea** (Ach.) Arnold Crust, epiphytic, on twigs of deciduous trees. Common.

**Rinodina bolanderi** H.Magn. Crust, epiphytic and saxicolous, on various bark, wood and rock surfaces near marine shores. Occasional.

**Rinodina conradii** Körber Crust, epiphytic, on drift-wood. Occasional.

**Rinodina degeliana** Coppins Crust, epiphytic, on *Alnus*. Rare.

**Rinodina disjuncta** Sheard & Tønsberg Crust, epiphytic, on *Alnus*. Rare.

**Rinodina flavosoralifera** Tønsberg Crust, epiphytic, on *Pseudotsuga* twigs. Rare.

**Rinodina freyi** H.Magn. Crust, epiphytic, on twigs of deciduous trees. Uncommon.

**Rinodina gennarii** Bagl. Crust, saxicolous, on aerohaline rocks. Common.

**Rinodina griseosoralifera** Coppins Crust, epiphytic, on bark of deciduous trees. Rare or uncommon.

**Rinodina hallii** Tuck. Crust, epiphytic, on bark and wood of various trees near marine shores. Common.

**Rinodina laevigata** (Ach.) Malme Crust, epiphytic, mostly on smooth bark of various trees. Common.

**Rinodina orculata** Poelt & M.Steiner Crust, epiphytic, on bark of various trees. Common.

**Rinodina pacifica** Sheard Crust, saxicolous, on aerohaline rocks. Rare.

**Rinodina santae-monicae** H.Magn. Crust, epiphytic, on *Arbutus* and *Juniperus* near marine shores. Uncommon.

**Rinodina stictica** Sheard & Tønsberg Crust, epiphytic, on shaded bark of deciduous trees. Uncommon.

**Rinodina trevisanii** (Hepp) Körber Crust, epiphytic, on twigs and branches of deciduous trees. Common.

**Ropalospora (unknown species)** Crust, epiphytic, on smooth bark of *Abies* and *Alnus*. Rare. Differs from *R. viridis* (Tønsberg) Tønsberg in the UV-thallus and brown apothecia). A new genus for BC.

***Sareopsis oleicola* Björk gen. et sp. ined.** Crust, not lichenized, on aged resin masses on trunk of old *Pseudotsuga*. Rare. Differs from the outwardly very similar *Sarea resinae* in having spreading, reddish hyphae on the apothecial rim, and in having a richly oil-inspersed hymenium. Like that species, it is highly polysporous, with minute, spherical spores.

***Schaereria dolodes* (Nyl. ex Hasse) Schmull & T.Sprib.** Crust, epiphytic, on *Pseudotsuga* trunk. Rare.

***Scoliciosporum chlorococcum* (Sten.) Vězda** Crust, epiphytic, on *Holodiscus*. Rare. An indicator of poor air quality, but unlike in more urban areas where it is often one of the dominant crust lichens, it was found to be only rare at Albert Head.

***Scoliciosporum* (unknown species)** Crust, epiphytic, on twigs of deciduous trees. Occasional. Typical *S. perpusillum* J.Lahm ex Körber in its smaller, blackish apothecia, but has the small spores of that species, in contrast to the larger-spored, common and widespread *S. umbrinum*. Differs from *S. chlorococcum* and *s. sarothamni* in having a areolate rather than granular or sorediate thallus, and in its smaller spores. Previously known to us as a very common species of boreal forests in northern Alberta.

***Scoliciosporum sarothamni* (Vainio) Vězda** Crust, epiphytic, on twigs of *Acer*. Rare.

***Solenopsora ? holophaea* (Mont.) Samp.** Mesolichen, saxicolous, on aerohaline rocks. Uncommon. A new genus for northwestern North America and Canada. Comparisons to specimens of *S. holophaea* is needed to confirm the identity of the population at Albert Head. Local material may differ from that species in having unbranched squamules, and in being (apparently) a juvenile parasite on *Lecanora poliophaea*.

***Sphaerophorus tuckermanii* Räsänen** Chlorolichen, epiphytic, limb of large *Pseudotsuga*. Rare.

***Spilonema revertens* Nyl.** Cyanolichen, saxicolous, on both aerohaline and upland rocks. Uncommon.

***Spilonema* sp. nov. sensu Spribille (pers. comm.)** Cyanolichen, saxicolous, on aerohaline rocks. Common. Differs from other *Spilonema* species in having grooved, radiating marginal lobes. Known also from Alaska.

***Staurothele fissa* (Taylor) Zwackh** Crust, saxicolous, on seepage tracks shortly above the aerohaline. Uncommon.

***Stenocybe pullatula* (Ach.) Stein** Calicioid, epiphytic, on *Alnus*. Rare or overlooked.

***Stereocaulon intermedium* (Savicz) H.Magn.** Macrolichen (tripartite), saxicolous, on rocks in upland sites as well as at the upper edge of the aerohaline. Occasional.

***Stereocaulon paschale* (L.) Hoffm.** Macrolichen (tripartite), terricolous, among mosses on upland rock outcrop. Rare.

***Stereocaulon tomentosum* Fr.** Macrolichen (tripartite), terricolous, among mosses on upland rock outcrops. Common.

***Sticta fuliginosa* (Hoffm) Ach.** Cyanolichen, epiphytic, on *Quercus*. Uncommon.

***Sticta limbata* (Sm.) Ach.** Cyanolichen, epiphytic, on various deciduous trees. Occasional.

***Sticta cf. sylvatica* (Hudson) Ach.** Cyanolichen, epiphytic, on *Quercus*. Uncommon. Similar to *S. fuliginosa*, but with elongated lobes that repeatedly branch when mature, and with more scattered, often coraloid isidia. Probably more common than *S. fuliginosa* in coastal BC. Work is underway to determine whether western North American populations are conspecific with those of Old World populations.

***Tephromela atra* (Hudson) Hafellner** Crust, saxicolous, on rocks near the upper edge of the aerohaline. Uncommon.

***Thelotrema lepadinum* (Ach.) Ach.** Crust, epiphytic, on *Alnus*. Rare.

***Toninia ruginosa* (Tuck.) Herre** Mesolichen, saxicolous, among mosses on upland rock outcrop. Rare.

***Trapelia placodiooides* Coppins & P.James** Crust, saxicolous, on upland cliff. Rare.

***Trapeliopsis flexuosa* (Fr.) Coppins & P.James** Crust, epiphytic, on wood, including that of drift logs. Occasional.

***Trapeliopsis granulosa* (Hoffm.) Lumbsch** Crust, terricolous and epiphytic, on thin soil over rock, and on bark and wood surfaces near the ground. Uncommon.

***Tuckermannopsis chlorophylla* (Willd.) Hale** Chlorolichen, epiphytic, on bark of various phorophytes. Common.

***Tuckermannopsis orbata* (Nyl.) M.J.Lai** Chlorolichen, epiphytic, on twigs and branches of various trees. Common.

***Tuckermannopsis platyphylla* (Tuck.) Hale** Chlorolichen, epiphytic, on *Quercus* twigs. Uncommon.

***Umbilicaria deusta* (L.) Baumg.** Chlorolichen, saxicolous on upland rocks. Rare.

***Umbilicaria phaea* Tuck.** Chlorolichen, saxicolous on upland rocks. Common.

***Umbilicaria polyphylla* (L.) Baumg.** Chlorolichen, saxicolous on upland rocks. Rare.

***Umbilicaria polyyrrhiza* (L.) Fr.** Chlorolichen, saxicolous on upland rocks. Rare.

***Usnea cavernosa* Tuck.** Chlorolichen, on twigs of *Pseudotsuga*. Rare.

***Usnea ceratina* Ach.** Chlorolichen, on various trees near marine shores. Occasional.

***Usnea chaetophora* Stirton** Chlorolichen, on twigs of various trees. Uncommon.

***Usnea cornuta* Körb.** Chlorolichen, on bark of deciduous trees. Common.

***Usnea diplotypus*** Vainio Chlorolichen, on branch of *Pseudotsuga*. Uncommon?

***Usnea filipendula*** Stirton Chlorolichen, on twigs and branches of various trees. Common.

***Usnea flavocardia*** Räsänen Chlorolichen, on branches of *Salix*. Rare? First published report for BC, but previously known to us from other localities.

***Usnea fragilescens*** Hav. ex Lyngé Chlorolichen, on *Quercus*. Rare?

***Usnea fulvoreagens*** (Räsänen) Räsänen Chlorolichen, on *Quercus* and *Salix*. Uncommon.

***Usnea lapponica*** Vainio Chlorolichen, on twigs and branches of various trees. Occasional.

***Usnea nidulans*** Motyka Chlorolichen, on *Alnus* and *Pseudotsuga*. Rare.

***Usnea pacifica*** P.Halonen Chlorolichen, on twigs and branches of various trees. Occasional.

***Usnea scabrata*** Nyl. Chlorolichen, on twigs and branches of various trees. Common.

***Usnea silesiaca*** Motyka Chlorolichen, on *Quercus*. Rare.

***Usnea substerilis*** Motyka Chlorolichen, on twigs and branches of various trees. Occasional or common.

***Usnea wasmuthii*** Räsänen Chlorolichen, on *Quercus*. Uncommon? First published report for BC, but previously known to us from other localities.

***Usnea unknown species*** Chlorolichen, on *Holodiscus* and *Quercus*. Uncommon. Similar to *U. trichodea*, but with a shrubby, rather than pendent growth form.

***Verrucaria amphibia*** Clemente Crust, saxicolous, aerohaline rocks. Uncommon?

***Verrucaria ceuthocarpa*** Wahlenb. Crust, saxicolous, aerohaline rocks. Common. One of the characteristic species of the aerohaline zone.

***Verrucaria elaeina*** Borrer Crust, saxicolous, upland cliffs. Rare.

***Verrucaria epimaura*** Brodo Crust, saxicolous, aerohaline rocks, a juvenile parasite on *Verrucaria maura*, often becoming autonomous as the thallus develops. Common.

***Verrucaria fusconigrescens*** Nyl. Crust, saxicolous, on aerohaline and upland rocks. Common.

***Verrucaria macrostoma*** Dufour ex DC. Crust, saxicolous, on upland rocks. Uncommon or rare.

***Verrucaria maura*** Wahlenb. Crust, saxicolous, lower to middle aerohaline. Common, a characteristic species of the aerohaline zone. Though treated in the phylogenetically delimited genus *Hydropunctaria* by most lichenologists, we refrain from doing so because there are no phenotypic synapomorphies

(observable non-DNA sequence traits that characterize a group and all its members in contrast to species of all other groups) for the genus. Also the great majority of *Verrucaria* s. lat. species that could belong to *Hydropunctaria* (such as *V. epimaura*) have yet to be studied for generic placement using phylogenetic or other methods.

***Verrucaria* (unknown species)** Crust, saxicolous, on aerothaline rocks. Rare. Previously unknown to us. Characterized by, among other characteristics, having a subsquamulose, brown thallus.

***Waynea californica* Moberg** Mesolichen, epiphytic, on trunks and limbs of large *Arbutus* and *Quercus*. Common.

***Xanthomendoza fallax* (Hepp ex Arnold) Søchting, Kärnefelt & S.Kondr.** Chlorolichen, epiphytic, on bark of deciduous trees. Rare.

***Xanthomendoza hasseana* (Räsänen) Søchting, Kärnefelt & S.Kondr.** Chlorolichen, epiphytic, on branches of deciduous trees. Occasional.

***Xanthomendoza oregana* (Gyeln.) Søchting, Kärnefelt & S.Kondr.** Chlorolichen, epiphytic, on branches of deciduous trees and *Juniperus*. Common.

***Xanthoparmelia coloradoensis* (Gyeln.) Hale group** Chlorolichen, saxicolous, on upland rocks. Uncommon.

***Xanthoparmelia mougeotii* (Schaer.) Hale** Chlorolichen, saxicolous, on upland rock, as well as on rock at the upper edge of the aerothaline. Common.

***Xanthoria candelaria* (L.) Th.Fr. var. *candelaria*** Chlorolichen, saxicolous, on upland rock. Uncommon.

***Xanthoria candelaria* var. *finmarkica* (Ach.) Hillmann** Chlorolichen, saxicolous, on upland cliff. Rare. This variety has not previously been reported from BC. It differs from *X. candelaria* in its very small size, deeply lobed thalli and more granular soredia.

***Xanthoria kaernefeltii* Kondr.** Chlorolichen, on branches and twigs of various tree and shrub species. Common.

***Xanthoria resendei* Poelt & Tav.** Chlorolichen, saxicolous, on aerothaline rocks where strongly nitrogen-enriched by guano. Rare. Previously unknown from North America.

***Xanthoria* sp. nov.** Chlorolichen, saxicolous, on aerothaline rocks. Common. One of the characteristic species of the aerothaline zone. A very widespread and common species of rocky marine shores from Alaska south at least to the central Oregon coast. It differs from *X. candelaria* in having more granular soredia, a relatively shrubby growth form with less dorsiventrally compressed lobes, a relatively yellow colour, and strict fidelity to its aerothaline rock habitat.

***Xylographa hians* Tuck.** Crust, epiphytic, on drift log. Uncommon.

***Xylographa opegraphella* Nyl. ex Rothr.** Crust, epiphytic, on drift logs. Uncommon.

**Xylographa parallela** (Ach.:Fr.) Behlen & Desberger Crust, epiphytic, on wood of *Pseudotsuga* stump. Rare.

**Xylographa septentrionalis** T.Sprib. ined. Crust, epiphytic, on drift logs. Rare.

### **Unknown species unplaced to genus:**

**Unknown lichenoid 1 (Pyrenopsis sp.?)** Cyanolichen, on seepage tracks in the upper aerohaline. Rare. Like “Unknown lichenoids” 2 and 3, this species probably belongs to the Lichinaceae (see also *Cryptothelie* sp. nov., *Lempholemma polyanthes*, *Pterygiopsis concordatula*, and *Pyrenopsis subareolata*). Lichenoids are very poorly known and notoriously difficult to identify. More work is needed on lichenoid specimens from BC, not just the present species, to compare against type specimens (most of which are from Europe), to assign species and genera, and possibly to name new species.

**Unknown lichenoid 2 (Cryptothelie sp.?)** Cyanolichen, on seepage tracks in the upper aerohaline. Rare. See notes under “Unknown lichenoid 1”.

**Unknown lichenoid 3 (Peccania sp.?)** Cyanolichen, on seepage tracks in the upper aerohaline. See notes under “Unknown lichenoid 1”.

**Unknown crust 1 (bullate, with pycnidia)** Crust, epiphytic, on *Pseudotsuga* wood in *Quercus* grove. Rare.

**Unknown crust 2 (sorediate)** Crust, saxicolous, on shaded upland cliff. Rare.

**Unknown micareoid genus (large, urceolate pycnidia, mounded green soralia)** Crust, epiphytic, trunk of large *Quercus*. Rare.

**Unknown lecideoid genus (curved-fusiform spores)** Crust, saxicolous, on upland rocks. Rare.

**Unknown lichenicole genus 1** Lichenicole, on *Lecanora bicincta* on upland rocks. Rare.

**Unknown lichenicole genus 2** Lichenicole, peritheciate, forming galls on *Fuscopannaria* over trunk of large *Arbutus*. Uncommon.