

Checklist of Lichen-forming, Lichenicolous and Allied Fungi of Eagle Hill and its Vicinity, Maine

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Abstract - 600 lichens and 82 lichenicolous and allied fungi have been recorded from Eagle Hill in Steuben, ME, and its vicinity over the past 25 years, mainly as a consequence of courses and research centered upon the Eagle Hill Institute (formerly the Humboldt Field Research Institute). Of the 682 taxa listed, 331 have been recorded within the Institute's boundary, of which 27 were not found elsewhere in the vicinity; a further 66 taxa recorded but lacking voucher material are listed. One lichen, *Lambiella fuscusora*, and 7 lichenicolous fungi, *Cornutispora pyramidalis*, *Epicleadonia stenospora*, *Monodictys epilepraria*, *Muellerella polyspora*, *Taeniolella cladinicola*, and *Tremella coppinsii*, are additional to the North American checklist; *Lambiella fuscusora* and *Cornutispora pyramidalis* are also recorded as new for Canada. Five lichens, *Alyxoria ochrocheila*, *Cladonia albonigra*, *Ephebe solida*, *Myriolecis schofieldii*, and *Parmotrema stuppeum*, are new for Maine. Notes on new records and interesting taxa are provided.

Introduction

The Eagle Hill Research Institute (formerly the Humboldt Field Research Institute), a non-profit educational center in Steuben, ME, is situated on the Dyer Neck Peninsula on the coast of Maine, about 120 km from the Canadian border and 50 km northeast of the main section of Acadia National Park on Mount Desert Island, ME. The Institute's land, comprising a large reserve area (60 ha) of essentially blueberry barrens and Acadian forest, extends to the ocean on its eastern side and to Dyer Bay Road on the west, and includes Eagle Hill (elev. 70 m). Since 1987, the Institute has operated as a natural history field station offering week-long seminars on a wide range of topics during the summer, including several courses on lichens each year. Topics have included lichen parasites, calicioid lichens, ground-inhabiting lichens, lecideoid lichens, sterile crustose lichens, *Rhizocarpon* and allied genera, *Cladonia*, and *Usnea*.

Due to the number and variety of courses undertaken in the past 2 decades, Eagle Hill and its vicinity is one of the most thoroughly studied areas in eastern North America with regard to its natural history, particularly its lichen flora. The participants on the lichen courses at the Institute can study species on the Eagle

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Hill Reserve, where the deciduous trees have examples of the charismatic Lobarion community, as well as other uncommon lichens that occur on the top of Eagle Hill such as fertile *Psilolechia lucida* on rocks, and *Hypotrachyna catawbiensis* and *Pseudevernia cladonia* on conifer branches. Areas reachable by car within about 1 hour are visited regularly to study the lichens as well as a few more distant sites of particular interest, e.g., Callahan and Cutler. Nearby habitats that have been visited include cemeteries at Steuben, Millbridge, Franklin and Columbia Falls, where we have observed a rich flora on the gravestones, as well as terricolous species such as *Cetraria arenaria* and many species of *Cladonia*, *Stereocaulon*, and *Peltigera*. The Blackwoods Road (Route 182) that runs from Franklin to Cherryfield has roadside banks, again with a rich flora of *Cladonia* species, and huge rocks that are covered with very large thalli of *Lasallia papulosa*, *Umbilicaria mammulata*, and *U. muhlenbergii*. High-elevation habitats have also been examined on Lead Mountain (elev. 450 m), Tunk Mountain (353 m), Black Mountain (333 m) and Catherine Mountain (293 m), as have streamside rocks along the Narraguagus River that support *Dermatocarpon luridum* and *Placynthium flabellum*. Lead Mountain at the northern end of route 193 is notable for its rich flora of pyrenolichens and *Biatora* species, and Tunk Mountain, Black Mountain, and Catherine Mountain have a diverse lichen flora on the trees and rocks. The various peninsulas adjacent to Dyer Bay Neck provide other lichen-rich woodlands, such as those around Corea and on Petit Manan, as well as stretches of lichen-covered maritime (mostly granite) rocks. Mud is quite frequently found coating the rocks around inlets, but elsewhere the lichens of intertidal rocks are often covered with a variety of lichens, e.g., abundant *Wahlenbergiella mucosa*, *Hydropunctaria maura*, and *Collemborsidium halodytes* and some rarities such as *Wahlenbergiella striatula*, *Verrucaria degelii*, and *V. halizoa*. There are a series of off-lying islands along the Maine coast that have been studied, some connected by causeways like Great Wass Island and others that can be reached only by boat and with the permission of the owners, including Roque Island which has been visited on a number of occasions by lichen classes. The latter is a relatively large and unspoiled island with a rich lichen flora: for example, *Sphaerophorus globosus* is to be found on old coniferous trees, while the *Fagus* (beech) forest supports a rich Lobarion community. The diversity of habitats within easy reach of the Eagle Hill Research Institute (Fig. 1) is the reason for the continued success of lichen courses there and the large number of lichens that have now been recorded in the area as listed below.

Clearly there has been considerable interest in the lichens of Maine over many years as reflected in the distribution data cited in Fink (1935). Although the original records (e.g., those of Harvey 1894, 1896; Merrill 1913, 1914; Tuckerman 1882, 1888) as well as the studies undertaken over the following 3 decades (e.g., Degelius 1940) have not been investigated in detail by us, there appear to be no published records of lichens from the Eagle Hill vicinity for this period. However, recent published taxonomic accounts include records from this area (e.g., Clerc 2011, Hinds and Hinds 2007, Lendemer et al. 2016). The unpublished doctoral thesis by Sullivan (1996) and the more recent study by Barton et al. (2014) provide information

on the lichen flora of Acadia National Park on Mount Desert Island, some 80 km by road from Eagle Hill, and several important surveys of serpentine-rich localities just southwest of Mount Desert Island (Harris et al. 2007, Medeiros et al. 2014, Rajakaruna et al. 2011) have also added to our knowledge of the lichens of the region. The records from Acadia National Park are not included in the current checklist, since data are available from other sources and, due to the distance from Eagle Hill and restrictions on collecting, these areas are not visited regularly by participants in the Institute's courses. Fundy National Park in New Brunswick, some 350 km to the north-east, has also been well studied (Gowan and Brodo 1988). Brodo et al.'s (2001) *Lichens of North America* and its recent supplement (Brodo 2016), McMullin and Anderson's (2015) *Common Lichens of Northeastern North America*, and Hinds and Hinds' (2007) *Macrolichens of New England* are all valuable resources for the identification of lichen collections made in and around the Eagle Hill Institute.

Eagle Hill Institute Lichen Herbarium

Course instructors and attendees have contributed specimens to the Institute's Lichen Herbarium, which has been actively curated over the last decade. To date, ~680 taxa have been collected by at least 67 individuals (major collectors are

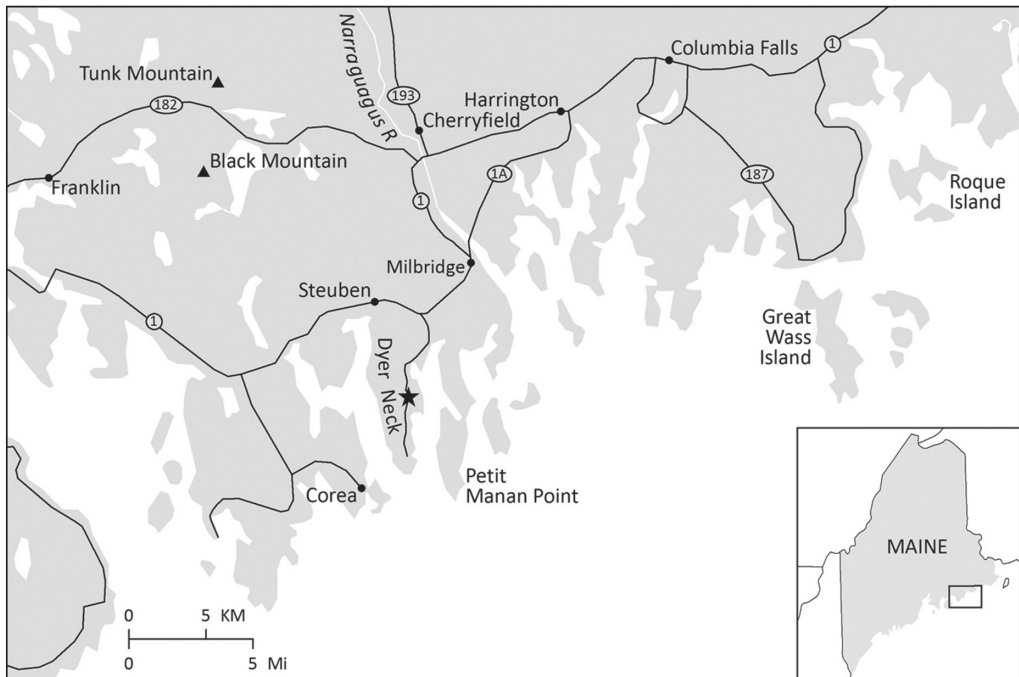


Figure 1. Map of the Eagle Hill Institute and Reserve (starred), Steuben, ME, and some of the surrounding areas available for the study of lichens. Frequently visited areas include those along Route 182 and Route 193 as far north as Lead Mountain (not shown), along with the various peninsulas, Great Wass Island, and Roque Island. Mount Desert Island is partly shown in the lower left corner, but records from there (Acadia National Park) are not included in the list.

highlighted with an "*") as follows: *Anderson, F. 2007–2012; Bartkowiak, M. 2011; Battaglia, J. 2006–2008; Bayne, D.M. 2014; Bennett, J. 2003; *Brodo, I.M. 2003–2016; Buck, E. 2008; Cameron, R. 1997; Cannon, L.D. 2009–2010; Cary, N.D. 2015; Davis, R.B. 1959; Davoodiam, N. 2007; Dibble, A.C. 2011; Favolise, A. 2013; Fike, J. 1998; *Fryday, A.M. 2011–2013; Gagnon, J. 2015; *Gowan, S. 1993; Greller, A.M. 2015; Grow, W.C. 2015; *Hale, M.E. 1970–1971; Hammer, R. 2016; Harms, R.Z. 2006; Harris, R.C. 2011; Hayes, P.E. 2014; Hill, R.J. 1998; Hinds, J.W. 1996; Hodgkinson, B.P. 2004; Hyerczyk, R. 1992; Ibe, R. 2010; Kelly, M. 2009; Kneiper, E. 2005; Kruse, D.A. 2015; Lavoie, A. 2016; Lay, E. 1996; Lemmon, C.R. 1998; *Lendemer, J.C. 2012; *Lotze, J-H. 1988; Lucas, N. 1996; Maloney, K.M. 1997; Mashburn, H. 1996; May, H.D. 2013; May, P. 1993; Moya, M. 2011; Mazurkiewicz, M. 1988; Moore, J.A. 2016; Olday, F.C. 2007; Ostrin, Z. 2010; Parrish, C. 2009; Perlmutter, G.B. 2006; Peterson, F. 1998; Podaril, A. 2013; *Richardson, D.H.S. 2000–2016; Richardson, S. 2011; Schmitt, C. 1991; *Seaward, M.R.D. 2006–2016; Slack, N. 1997; Sonder, E. 2008; Thompson, K.M. 2015; Tremback, B.J. 2015; Tsai, L.-J. 2016; Van Derwerker, A. 2011; Waters, D.P. 2008–2010; Westgate, L. 2016; Wiseman, R. 1998; Zoll, V. 2000–2008.

Checklist

Abbreviations of authorities in the following lists are according to Brummitt and Powell (1992), and the nomenclature and authorities mainly follow Esslinger (2016); where departures have been made, synonyms are provided. The area covered in the list is mostly illustrated in Figure 1, except for the inclusion of records from the Cutler Coast Public Reserved Land northeast of the map and those mentioned in Medeiros et al. (2015) from Pine Hill and the Callahan Mine, and it excludes records from Acadia National Park.

* = lichenicolous fungi; + = allied saprophytic fungi; # = weakly lichenized or beginning as parasites and later becoming lichens. 1 = occurring on the Eagle Hill Research Institute Reserve; 2 = found in the vicinity of Eagle Hill in the area covered by Figure 1 and at sites along the various roads on that map and as far north as Lead Mountain along route 193. The location of vouchers are: EgH = the Eagle Hill Institute Herbarium; CANL = Canadian Museum of Nature; G = Conservatoire et Jardin botaniques de la Ville de Genève; ISC = Iowa State University.; MAINE = University of Maine, Orono; MIN = Bell Museum of Natural History, Lichen Section, University of Minnesota; MSC = Michigan State University; NY = New York Botanical Garden; PH = Academy of Natural Sciences of Drexel University; UMFK = University of Maine, Fort Kent; DLH = determination by David L. Hawksworth, most vouchers likely in K (Royal Botanic Gardens, Kew, UK) or MIN; MRDS = private herbarium of Mark R.D. Seaward.

**Abrothallus caerulescens* Kotte 2 [NY]

**A. cetrariae* Kotte (& its anamorph, *Vouauxiomyces santessonii* D. Hawksw.) 1, 2 [EgH]

- **A. cladoniae* R. Sant. & D. Hawksw. 2 [DLH]
 **A. microspermus* Tul. (& its anamorph, *Vouauxiomyces truncatus* (B. de Lesd.) Dyko & D. Hawksw.) 1, 2 [NY]
 **A. parmeliarum* (Sommerf.) Arnold 1, 2 [NY]
 **A. tulasnei* M.S. Cole & D. Hawksw. 2 [DLH]
Absconditella lignicola Vězda & Pišút 2 [CANL]
A. sphagnum Vězda & Poelt 2 [MAINE]
Acarospora fuscata (Schrad.) Arnold 1, 2 [CANL]
A. molybdina (Wahlenb.) Trevis. 2 [EgH, CANL, MSC]
A. sinopica (Wahlenb.) Körb. 1, 2 [EgH]
Acrocordia cavata (Ach.) R.C. Harris 2 [CANL, NY]
 +*Agyrium rufum* (Pers.) Fr. 2 [EgH]
Ahtiana aurescens (Tuck.) Thell & Randle 2 [EgH]
Alectoria sarmentosa (Ach.) Ach. subsp. *sarmentosa* 2 [EgH]
Alyxoria ochrocheila (Nyl.) Ertz & Tehler (syn. *Opegrapha ochrocheila* Nyl.) 1, 2 [MSC]
A. varia (Pers.) Ertz & Tehler (syn. *Opegrapha varia* Pers.) 2 [CANL]
Amandinea dakotensis (H. Magn.) P. May & Sheard 2 [EgH]
A. milliaria (Tuck.) P. May & Sheard 2 [EgH]
A. polyspora (Willey) E. Lay & P.F. May (syn. *Rinodina polyspora* Th. Fr.) 1 [MAINE]
A. punctata (Hoffm.) Coppins & Scheid. 1, 2 [EgH]
Amygdalaria panaeola (Ach.) Hertel & Brodo 1, 2 [EgH]
Anaptychia palmulata (Michx.) Vain. 2 [EgH]
Anisomeridium biforme (Borrer) R.C. Harris 1, 2 [EgH, CANL]
A. polyperi (Ellis & Everh.) M.E. Barr 1, 2 [NY]
Arctoparmelia centrifuga (L.) Hale 1, 2 [EgH]
Arthonia apatetica (A. Massal.) Th. Fr. 1, 2 [NY]
 +*A. caudata* Willey 2 [NY]
 **A. colombiana* Etayo 2 [EgH]
 **A. coronata* Etayo 2 [NY]
A. didyma Körb. 2 [NY]
A. helvola (Nyl.) Nyl. 2 [CANL]
A. leucopellaea (Ach.) Almq. 2 [EgH, CANL]
A. radiata (Pers.) Ach. 1, 2 [EgH, CANL]
A. ruana A. Massal. (syn. *Arthothelium ruanum* (A. Massal.) Körb.) 2 [NY]
Arthrorhaphis citrinella (Ach.) Poelt 1, 2 [CANL, NY]
 +*A. grisea* Th. Fr. 1 [DLH]
Aspicilia cinerea (L.) Körb. 1, 2 [EgH, CANL]
A. laevata (Ach.) Arnold 2 [EgH]
A. cf. verrucigera Hue 2 [EgH, MSC; det. Fryday, contains norstictic acid]
Athallia holocarpa (Hoffm.) Arup et al. (syn. *Caloplaca holocarpa* (Hoffm. ex Ach.) A.E. Wade) 2 [EgH]
A. pyracea (Ach.) Arup et al. (syn. *Caloplaca pyracea* (Ach.) Th. Fr.) 2 [EgH, CANL]

A. scopularis (Nyl.) Arup et al. (syn. *Caloplaca scopularis* (Nyl.) Lettau) 1, 2 [EgH]

**Bachmanniomyces uncialicola* (Zopf) D. Hawksw. 2 [NY]

Bacidia arceutina (Ach.) Arnold 2 [NY]

B. circumspecta (Nyl. ex Vain.) Malme 1 [EgH]

B. laurocerasi (Delise ex Duby) Zahlbr. 2 [CANL]

B. rubella (Hoffm.) A. Massal. 2 [EgH]

B. schweinitzii (Fr. ex E. Michener) A. Schneid. 2 [EgH, CANL]

Bactrospora brodoi Egea & Torrente 2 [EgH, MAINE]

Baeomyces carneus Flörke 1 [EgH]

B. rufus (Huds.) Rebent. 1, 2 [EgH]

Biatora appalachensis Printzen & Tønsberg 2 [CANL]

B. chrysantha (Zahlbr.) Printzen 2 [CANL, NY]

B. longispora (Degel.) Lendemer & Printzen 1, 2 [CANL, NY]

B. pontica Printzen & Tønsberg 1, 2 [EgH, CANL]

B. pycnidia Printzen & Tønsberg 1, 2 [EgH, CANL]

B. vernalis (L.) Fr. 1, 2 [CANL, MSC]

**Biatoropsis usnearum* Räsänen 1, 2 [PH]

Bilimbia sabuletorum (Schreb.) Arnold 1, 2 [MRDS]

Brianaria lutulata (Nyl.) S. Ekman & M. Sennison (syn. *Micarea lutulata* (Nyl.) Coppins) 2 [EgH, NY]

B. sylvicola (Flot. ex Körb.) S. Ekman & M. Sennison (syn. *Micarea sylvicola* (Flot.) Vězda & V. Wirth) 2 [NY]

Bryobilimbia ahlesii (Körb.) Fryday et al. (syn. *Lecidea ahlesii* (Körb.) Nyl.) 2 [NY]

B. hypnorum (Lib.) Fryday et al. (syn. *Mycobilimbia hypnorum* (Lib.) Kalb & Hafellner) 2 [NY]

Bryoria furcellata (Fr.) Brodo & D. Hawksw. 1, 2 [NY]

B. fuscescens (Gyeln.) Brodo & D. Hawksw. 1, 2 [EgH]

B. kockiana Velmala et al. (N. American records of *B. implexa* (Hoffm.) Brodo & D. Hawksw.) 2 [EgH]

B. nadvornikiana (Gyeln.) Brodo & D. Hawksw. 1, 2 [EgH]

B. pikei Brodo & D. Hawksw. (N. American records of *B. capillaris* (Ach.) Brodo & D. Hawksw.) 1, 2 [EgH]

B. trichodes (Michx.) Brodo & D. Hawksw. subsp. *trichodes* 1, 2 [EgH]

Buellia aethalea (Ach.) Th. Fr. 1, 2 [CANL]

B. arnoldii Servit (syn. *Hafellia arnoldii* (Servit) Hafellner & Türk) 2 [NY]

B. dialyta (Nyl.) Tuck. 2 [EgH]

B. disciformis (Fr.) Mudd (syn. *Hafellia disciformis* (Fr.) Marbach & H. Mayrhofer) 1, 2 [EgH, CANL]

B. lepidastra (Tuck.) Tuck. 2 [MSC]

B. ocellata (Flörke ex Flot.) Körb. 2 [MAINE]

B. schaereri De Not. 2 [CANL]

B. stillingiana J. Steiner (syn. *B. erubescens* Arnold s. str.) 1, 2 [EgH] (See Brodo 2016: 109)

- Calicium abietinum* Pers. 1, 2 [UMFK]
C. glaucellum Ach. 1, 2 [MAINE, UMFK]
C. lenticulare Ach. 1, 2 [UMFK]
C. parvum Tibell 1, 2 [UMFK]
C. salicinum Pers. 2 [EgH, CANL]
C. trabinellum (Ach.) Ach. 1, 2 [UMFK]
C. viride Pers. 1 and/or 2 [UMFK]
Caloplaca borealis (Vain.) Poelt 2 [CANL]
C. cerina (Ehrh. ex Hedwig) Th. Fr. 2 [NY]
C. fraudans (Th. Fr.) H.Olivier 2 [NY]
C. lithophila H. Magn. 2 [MSC]
Candelaria concolor (Dicks.) Stein 2 [EgH]
Candelariella aurella (Hoffm.) Zahlbr. 2 [MSC]
C. efflorescens R.C. Harris & W.R. Buck 1, 2 [EgH]
C. vitellina (Hoffm.) Müll. Arg. 1, 2 [NY]
Carbonicola anthracophila (Nyl.) Bendiksby & Timdal (syn. *Hypocenomyce anthracophila* (Nyl.) P. James & Gotth.Schneid.) 2 [CANL]
Catillaria atomarioides (Müll. Arg.) H. Kilius 2 [MSC]
C. chalybeia (Borrer) A. Massal. 1 [EgH, CANL, NY]
C. lenticularis (Ach.) Th. Fr. 2 [MSC]
Catinaria atropurpurea (Schaer.) Vězda & Poelt 1, 2 [MSC]
Cetraria aculeata (Schreb.) Fr. 2 [EgH]
C. arenaria Kärnefelt 2 [EgH]
C. islandica (L.) Ach. subsp. *islandica* 2 [CANL]
C. laevigata Rass. 2 [EgH]
C. muricata (Ach.) Eckfeldt 2 [CANL]
Cetrelia cetrarioides (Duby) W.L. Culb. & C.F. Culb. 2 [NY]
C. chicitae (W.L. Culb.) W.L. Culb. & C.F. Culb. 1, 2 [EgH]
C. olivetorum (Nyl.) W.L. Culb. & C.F. Culb. 1, 2 [EgH]
Chaenotheca balsamconensis J.L. Allen & McMullin 2 [NY]
C. brunneola (Ach.) Müll. Arg. 1, 2 [EgH]
C. chrysocephala (Ach.) Th. Fr. 1, 2 [EgH, CANL, NY]
C. ferruginea (Turner ex Sm.) Mig. 1, 2 [EgH, CANL]
C. furfuracea (L.) Tibell 1, 2 [UMFK]
C. gracillima (Vain.) Tibell 1 [EgH]
C. nitidula Tibell 2 [UMFK]
C. phaeocephala (Turner) Th. Fr. 1 [MAINE]
C. stemonea (Ach.) Müll. Arg. 2 [UMFK]
C. trichialis (Ach.) Th. Fr. 1, 2 [UMFK]
+*Chaenothecopsis debilis* (Turner & Borrer ex Sm.) Tibell 2 [UMFK]
**C. dibbleandersonianum* S.B. Selva 2 [UMFK]
+*C. haematopus* Tibell 2 [UMFK]
#*C. pusilla* (Ach.) A.F.W. Schmidt 1, 2 [UMFK]
#*C. pusiola* (Ach.) Vain. 1, 2 [UMFK]

- #*C. viridireagens* (Nádv.) A.F.W. Schmidt 2 [UMFK]
Chrysothrix caesia (Flot.) Ertz & Tehler (syn. *Arthonia caesia* (Flöt.) Korb.) 2 [NY]
C. insulizans R.C. Harris & Ladd 2 [CANL, NY]
C. xanthina (Vain.) Kalb 1, 2 [NY]
Circinaria caesiocinerea (Nyl. ex Malbr.) A. Nordin et al. (syn. *Aspicilia caesiocinerea* (Nyl. ex Malbr.) Arnold) 1, 2 [EgH, MAINE]
Cladonia acuminata (Ach.) Norrl. 2 [MSC]
C. albonigra Brodo & Ahti 2 [EgH]
C. apodocarpa Robbins 2 [EgH]
C. arbuscula (Wallr.) Flot. 1, 2 [EgH, CANL]
C. atlantica A. Evans 1 [EgH]
C. boryi Tuck. 1, 2 [EgH, CANL]
C. botrytes (K.G. Hagen) Willd. 2 [EgH]
C. brevis (Sandst.) Sandst. 1, 2 [EgH, CANL]
C. caespiticia (Pers.) Flörke 1, 2 [EgH]
C. cariosa (Ach.) Spreng. 1, 2 [EgH]
C. carneola (Fr.) Fr. 1, 2 [EgH]
C. cenotea (Ach.) Schaer. var. *cenotea* 1, 2 [EgH]
C. chlorophaea (Flörke ex Sommerf.) Spreng. 1, 2 [EgH]
C. coccifera (L.) Willd. 1, 2 [EgH]
C. coniocraea (Flörke) Spreng. 1, 2 [MAINE]
C. cornuta (L.) Hoffm. subsp. *cornuta* 1(?), 2 [MAINE]
C. cornuta subsp. *groenlandica* E. Dahl. 2 [NY]
C. crispata (Ach.) Flot. var. *crispata* 1, 2 (mostly the thamnolic acid chemotype) [EgH]
C. crispata var. *cetrariiformis* (Delise) Vain. 1, 2 [EgH]
C. cristatella Tuck. 1, 2 [EgH]
C. cryptochlorophaea Asah. 2 [MSC]
C. deformis (L.) Hoffm. 1, 2 [NY]
C. digitata (L.) Hoffm. 1, 2 [EgH]
C. dimorphoclada Robbins 2 [MSC]
C. farinacea (Vain.) A. Evans 2 [EgH]
C. fimbriata (L.) Fr. 2 [CANL]
C. floerkeana (Fr.) Flörke 1, 2 [EgH]
C. furcata (Huds.) Schrad. 1, 2 [EgH, CANL]
C. gracilis (L.) Willd. subsp. *gracilis* 1, 2 [EgH]
C. gracilis subsp. *elongata* (Wulfen) Vain. 2 [EgH]
C. gracilis subsp. *turbinata* (Ach.) Ahti 1, 2 [EgH]
C. grayi G. Merr. ex Sandst. 1, 2 [EgH, CANL]
C. incrassata Flörke 1, 2 [EgH]
C. macilenta Hoffm. var. *macilenta* 1, 2 [EgH]
C. macilenta var. *bacillaris* (Genth) Schaer. 1, 2 [EgH, CANL]
C. maxima (Asah.) Ahti 1, 2 [EgH, CANL]

- C. merochlorophaea* Asah. 1 [NY]
C. mitis Sandst. 1, 2 [EgH]
C. multiformis G. Merr. 1, 2 [EgH, CANL]
C. ochrochlora Flörke 1, 2 [EgH]
C. parasitica (Hoffm.) Hoffm. 1, 2 [EgH]
C. phyllophora Hoffm. 2 [EgH, CANL]
C. pleurota (Flörke) Schaer. 1, 2 [EgH, CANL]
C. pocillum (Ach.) Grognot 2 [EgH]
C. polycarpoides Nyl. 2 [EgH]
C. pyxidata (L.) Hoffm. 1, 2 [EgH, CANL]
C. ramulosa (With.) J.R. Laundon 1 [EgH]
C. rangiferina (L.) F.H. Wigg. 1, 2 [EgH, CANL]
C. rappii A.Evans 2 [MAINE]
C. rei Schaer. 2 [MSC]
C. scabriuscula (Delise) Nyl. 1, 2 [EgH, CANL]
C. squamosa Hoffm. var. *squamosa* 1, 2 [EgH, CANL]
C. stellaris (Opiz) Pouzar & Vězda 1, 2 [EgH, CANL]
C. strepsilis (Ach.) Grognot 1, 2 [EgH, CANL]
C. stygia (Fr.) Ruoss 2 [EgH]
C. subtenuis (Abbeyes) Mattick 1, 2 [CANL]
C. subulata (L.) F.H. Wigg. 1, 2 [EgH]
C. sulphurina (Michx.) Fr. 2 [EgH]
C. symphyocarpa (Flörke) Fr. 2 [MSC]
C. terrae-novae Ahti 2 [CANL]
C. turgida Ehrh. ex Hoffm. 1, 2 [EgH, CANL]
C. uncialis (L.) F.H. Wigg. subsp. *uncialis* 1, 2 [EgH, CANL]
C. uncialis subsp. *biuncialis* (Hoffm.) M. Choisy 2 [NY]
C. verticillata (Hoffm.) Schaer. (syn. *C. cervicornis* subsp. *verticillata* (Hoffm.) Ahti) 1(?), 2 [EgH]
Clauzadeana macula (Taylor) Coppins & Rambold 2 [NY, MSC]
Cliostomum griffithii (Sm.) Coppins 1, 2 [EgH, CANL]
C. leprosum (Räsänen) Holien & Tønsberg 2 [CANL, NY]
C. vitellinum Gowan 2 [NY]
Coccocarpia palmicola (Spreng.) Arv. & D.J. Galloway 2 [MSC]
Coenogonium luteum (Dicks.) Kalb & Lücking 1, 2 [EgH]
C. pineti (Ach.) Lücking & Lumbsch 1, 2 [EgH]
Collema subflaccidum Degel. 2 [EgH, MSC]
Collemopsidium halodytes (Nyl.) Grube & B.D. Ryan 1, 2 [EgH, CANL]
C. sublitorale (Leight.) Grube & B.D. Ryan 1, 2 [EgH]
**Cortutispora pyramidalis* Etayo 2 [NY]
**Cyphobasidium hypogymniicola* (Diederich & Ahti) Millanes et al. (syn. *Cystobasidium hypogymniicola* Diederich & Ahti) 1, 2 [EgH, NY]
Cystocoleus ebeneus (Dillwyn) Thwaites 2 [CANL]
**Dactylospora lobariella* (Nyl.) Hafellner 2 [DLH]
**D. parasitica* (Flörke ex Spreng.) Zopf 2 [NY]

- Dendroscocaulon intricatum* (Nyl.) Henssen 2 [EgH, CANL]
Dermatocarpon leptophyllodes (Nyl.) Zahlbr. 2 [MSC]
D. luridum (With.) J.R. Laundon 2 [EgH]
D. miniatum (L.) W. Mann 2 [MSC]
Dibaeis baeomyces (L. f.) Rambold & Hertel 1, 2 [EgH, CANL]
Dictyocatenulata alba Finney & E.F. Morris 2 [EgH]
Dimelaena oreina (Ach.) Norman 2 [NY]
#*Diploschistes muscorum* (Scop.) R. Sant. 1, 2 [MSC, NY]
D. scruposus (Schreb.) Norman 1, 2 [CANL, MSC, NY]
**Endococcus propinquus* (Körb.) D. Hawksw. 2 [NY]
**E. perpusillus* Nyl. 1 [NY]
Enterographa zonata (Körb.) Källsten (syn. *Opegrapha zonata* Körb.) 2 [MAINE]
Ephebe lanata (L.) Vain. 2 [CANL]
E. perspinulosa Nyl. 2 [MAINE]
E. solida Bornet 2 [CANL]
**Epicladonia sandstedei* (Zopf) D. Hawksw. 2 [EgH, NY]
**E. stenospora* (Harm.) D. Hawksw. 2 [NY]
Evernia mesomorpha Nyl. 1, 2 [EgH]
Flavoparmelia caperata (L.) Hale 1, 2 [EgH, CANL]
Flavoplaca microthallina (Wedd.) Arup et al. (syn. *Caloplaca microthallina* (Wedd.) Zahlbr.) 2 [MAINE, MSC]
Flavopunctelia flaventior (Stirt.) Hale 2 [MAINE]
Fuscidea arboricola Coppins & Tønsberg 1, 2 [EgH, CANL, MSC]
F. gothoburgensis (H. Magn.) V. Wirth & Vězda 2 [MAINE]
F. lowensis (H. Magn.) R. Anderson & Hertel 2 [MAINE]
F. pusilla Tønsberg 2 [NY]
F. recensa (Stirton) Hertel et al. var. *recensa* 2 [NY]
F. recensa var. *arcuatula* (Arnold) Fryday 1, 2 [EgH, CANL, MSC, NY]
Fuscopannaria praetermissa (Nyl.) P.M. Jørg. 2 [MSC]
Graphis elegans (Borrer ex Sm.) Ach. 2 [MAINE]
G. scripta (L.) Ach. 1, 2 [EgH, CANL]
Gyalideopsis moodyae Lendemer & Lücking 2 [NY]
Gyalolechia flavorubescens (Huds.) Søchting et al. (syn. *Caloplaca flavorubescens* (Huds.) J.R. Laundon) 1, 2 [EgH]
G. xanthostigmoidea (Räsänen) Søchting et al. (syn. *Caloplaca xanthostigmoidea* (Räsänen) Zahlbr.) 2 [CANL, NY]
Halecania pepegospora (H. Magn.) Van den Boom 1, 2 [EgH, CANL]
**Heterocephalacria bachmannii* (Diederich & M.S. Christ) Millanes & Wedin (syn. *Syzygospora bachmannii* Diederich & M.S. Christ.) 2 [NY]
Heterodermia neglecta Lendemer et al. 2 [EgH]
H. speciosa (Wulfen) Trevisan 2 [NY]
H. squamulosa (Degel.) W.L. Culb. 2 [EgH]
**Homostegia piggotii* (Berk. & Broome) P. Karst. 1, 2 [MRDS, NY]

- Hydropunctaria maura* (Wahlenb.) Keller et al. (syn. *Verrucaria maura* Wahlenb.) 1, 2 [EgH]
Hyperphyscia syncolla (Tuck. ex Nyl.) Kalb. 2 [MAINE]
Hypocenomyce scalaris (Ach.) M. Choisy 2 [CANL, NY]
Hypogymnia incurvoides Rass. 2 [EgH]
H. krogiae Ohlsson 1, 2 [EgH, CANL]
H. physodes (L.) Nyl. 1, 2 [EgH]
H. tubulosa (Schaer.) Hav. 1, 2 [EgH, NY]
Hypotrachyna afrorevoluta (Krog & Swinscow) Krog & Swinscow 2 [MAINE]
H. catawbiensis (Degel.) Divakar et al. (syn. *Everniastrum catawbiense* (Degel.) Hale ex Sipman) 1, 2 [EgH, CANL]
H. revoluta (Flörke) Hale 1 [EgH, NY]
Icmadophila ericetorum (L.) Zahlbr. 1, 2 [EgH]
Imshaugia aleurites (Ach.) S.F. Meyer 1, 2 [EgH]
I. placododia (Ach.) S.F. Meyer 1, 2 [NY]
Inoderma byssaceum (Weigel) Gray (syn. *Arthonia byssacea* (Weigel) Almq.) 1, 2 [CANL]
**Intralichen christiansenii* (D. Hawksw.) D. Hawksw. & M.S. Cole 1 [DLH]
**I. lichenum* (Diederich) D. Hawksw. & M.S. Cole 2 [DLH]
Ionaspis alba Lutzoni 2 [CANL]
I. lacustris (With.) Lutzoni 2 [EgH, CANL]
Japewia subaurifera Muhr & Tønsberg 2 [NY]
Japewiella dollypartoniana J.L. Allen & Lendemer 1, 2 [NY]
+*Julella fallaciosa* (Arnold) R.C. Harris 2 [EgH, CANL]
**Laeviomycetes pertusariicola* (Nyl.) D. Hawksw. (syn *Lichenodiplis pertusariicola* (Nyl.) Diederich.) 2 [NY]
Lambiella caeca (J. Lowe) Resl & T. Sprib. (syn. *Rimularia caeca* (J.Lowe) Rambold & Printzen) 1, 2 [NY]
L. fuscusora (Muhr & Tønsberg) M. Westb. & Resl 2 [CANL]
Lasallia papulosa (Ach.) Llano 1, 2 [EgH, CANL]
L. pensylvanica (Hoffm.) Llano 2 [NY]
Lecanactis abietina (Ach.) Körb. 2 [CANL, NY]
Lecania croatica (Zahlbr.) Kotlov 1, 2 [EgH]
L. naegelii (Hepp) Diederich & Van den Boom 2 [MRDS]
Lecanora albella (Pers.) Ach. var. *rubescens* (Imshaug & Brodo) Lumbsch 2 [NY]
L. allophana Nyl. 1, 2 [NY]
L. argentea Oxner & Volkova 2 [EgH]
L. caesiorubella Ach. subsp. *caesiorubella* 1, 2 [EgH]
L. chlarotera Nyl. 2 [EgH, MAINE]
L. cinereofusca H. Magn. 2 [EgH, CANL]
L. congesta Lynge 2 [NY]
L. expallens Ach. 2 [EgH, CANL, NY]
L. farinaria Borrer 2 [NY]

- L. glabrata* (Ach.) Malme 2 [EgH]
L. hybocarpa (Tuck.) Brodo 1, 2 [EgH]
L. hypoptoides (Nyl.) Nyl. 2 [CANL, NY]
L. layana Lendemer 2 [NY]
L. minutella Nyl. 2 [NY]
L. orae-frigidae R. Sant. 2 [EgH, CANL, NY]
L. perplexa Brodo 2 [MAINE]
L. polytropa (Hoffm.) Rabenh. 1, 2 [EgH, MSC]
L. pulicaris (Pers.) Ach. 1, 2 [EgH, CANL]
L. rugosella Zahlbr. 2 [EgH]
L. rupicola (L.) Zahlbr. 2 [EgH, CANL]
L. strobilina (Spreng.) Kieffer 1, 2 [EgH]
L. symmicta (Ach.) Ach. 1, 2 [EgH, CANL]
L. thysanophora R.C. Harris 1, 2 [EgH, CANL]
L. wisconsinensis H. Magn. 2 [EgH]
L. xylophila Hue 1, 2 [EgH, CANL, MSC]
Lecidea auriculata Th. Fr. subsp. *auriculata* 1, 2 [EgH, CANL, MSC]
L. brunneofusca H. Magn. 1, 2 [CANL]
L. herteliana Fryday & Coppins 1, 2 [ISC, MSC]
L. nylanderi (Anzi) Th. Fr. 2 [EgH]
L. plana (J. Lahm) Nyl. 2 [MSC]
L. tessellata Flörke 1, 2 [EgH, CANL, MSC]
L. turgidula (Fr.) Nyl. (syn. *Biatora turgidula* Fr.) 2 [NY]
Lecidella patavina (A. Massal.) Knoph & Leuckert 2 [MSC]
L. stigmathea (Ach.) Hertel & Leuckert 2 [MAINE, MSC]
Lepraria caesiella R.C. Harris 1, 2 [EgH, CANL]
L. cryophila Lendemer 2 [NY]
L. eburnea J.R. Laundon 2 [NY]
L. finkii (B. de Lesd.) R.C. Harris (syn. *L. lobificans* Nyl.) 1, 2 [EgH, NY]
L. harrisiana Lendemer 2 [NY]
L. hodkinsoniana Lendemer 2 [NY]
L. humida Slav.-Bayr. & Orange 1, 2 [NY]
L. jackii Tønsberg 2 [NY]
L. neglecta (Nyl.) Erichsen (syn. *L. borealis* Tønsberg) 1, 2 [CANL, NY]
L. normandinioides Lendemer & R.C. Harris 2 [EgH, CANL, MSC, NY]
L. oxybapha Lendemer 2 [NY]
L. rigidula (B. de Lesd.) Tønsberg 2 [NY]
L. torii Pérez-Ortega & T. Sprib. 2 [NY]
Leprocaulon adhaerens (K. Knudsen et al.) Lendemer & Hodkinson (syn. *Lepraria adhaerens* K. Knudsen et al.) 2 [CANL]
Leimonis erratica (Körb.) R.C. Harris & Lendemer (syn. *Micarea erratica* (Körb.) Hertel et al.) 2 [EgH, CANL]
Leptogium cyanescens (Rabenh.) Körb. 1, 2 [EgH, CANL, MSC]
L. laceroides B. de Lesd. 2 [EgH]
L. milligranum Sierk 2 [EgH]

- **Lettauia cladoniicola* D. Hawksw. & R. Sant. 2 [NY]
- **Leucogyrophana lichenicola* Thorn et al. 2 [NY]
- **Lichenocodium erodens* M.S. Christ. & D. Hawksw. 1, 2 [MIN, NY]
- **L. lecanorae* (Jaap) D. Hawksw. 1, 2 [NY]
- **L. pyxidatae* (Oudem.) Petr. & Syd. 1 [DLH]
- **Lichenodiplis lecanorae* (Vouaux) Dyko & D. Hawksw. 2 [NY]
- Lichenomphalia umbellifera* (L.: Fr.) Redhead et al. (syn. *Omphalina ericetorum* (Pers.) M. Lange) 1, 2 [EgH, CANL]
- **Lichenosticta alcicornaria* (Lindsay) D. Hawksw. 2 [NY]
- **Lichenostigma alpinum* (R. Sant. et al.) Ertz & Diederich (syn. *Phaeosporobolus alpinus* R. Sant. et al.) 2 [NY]
- **L. cosmopolites* Hafellner & Catal. 2 [MIN, NY]
- **L. elongata* Nav.-Ros. & Hafellner 1, 2 [NY]
- **L. maureri* Hafellner (syn. *Phaeosporobolus usneae* D. Hawksw. & Hafellner) 1, 2 [DLH]
- #*Lichenothelia convexa* Henssen 2 [MSC]
- Lithothelium hyalosporum* (Nyl.) Aptroot 2 [EgH]
- Lobaria pulmonaria* (L.) Hoffm. 1, 2 [EgH]
- L. quercizans* Michx. 1, 2 [EgH, CANL]
- L. scrobiculata* (Scop.) DC. 1, 2 [EgH]
- Lopadium disciforme* (Flot.) Kullh. 1, 2 [EgH, CANL]
- Loxospora cismonica* (Beltr.) Hafellner 1, 2 [EgH]
- L. elatina* (Ach.) A. Massal. 1, 2 [EgH, MSC]
- L. ochrophaea* (Tuck.) R.C. Harris 1, 2 [EgH, MSC]
- **Marchandiomyces corallinus* (Roberge) Diederich & D. Hawksw. 1 [MIN]
- Megalaria laureri* (Hepp ex Th. Fr.) Hafellner 1, 2 [EgH, CANL]
- M. pulvereae* (Borrer) Hafellner & E.J. Schreiner 2 [NY]
- Megalospora porphyritis* (Tuck.) R.C. Harris 2 [NY]
- Melanelia hepatizon* (Ach.) Thell 1 [EgH]
- M. stygia* (L.) Essl. 1, 2 [EgH, CANL]
- Melanelixia glabratula* (Lamy) Sandler & Arup (syn. *M. fuliginosa* subsp. *glabratula* (Lamy) J.R. Laundon) 1, 2 [EgH]
- M. subaurifera* (Nyl.) O. Blanco et al. 1, 2 [EgH, CANL]
- Melanohalea halei* (Ahti) O. Blanco et al. 1, 2 [EgH]
- M. olivacea* (L.) O. Blanco et al. 1, 2 [NY]
- M. septentrionalis* (Lynge) O. Blanco et al. 1, 2 [EgH, NY]
- Menegazzia subsimilis* (H. Magn.) R. Sant. 2 [EgH]
- Micarea botryoides* (Nyl.) Coppins 2 [NY]
- M. denigrata* (Fr.) Hedl. 1 [CANL]
- M. endocyanea* (Tuck. ex Willey) R.C. Harris 2 [EgH, CANL]
- M. globulosella* (Nyl.) Coppins 1, 2 [CANL, NY]
- M. hedlundii* Coppins 2 [NY]
- M. melaena* (Nyl.) Hedl. 2 [EgH, CANL]
- M. micrococca* (Körb.) Gams ex Coppins 2 [EgH, NY]

- M. misella* (Nyl.) Hedl. 1 [EgH, MSC]
M. peliocarpa (Anzi) Coppins & R. Sant. 1, 2 [EgH, CANL, MSC]
M. prasina Fr. s.l. 1, 2 [EgH, CANL, NY]
M. turfosa (A. Massal.) Du Rietz 2 [MSC]
+*Microcalicium ahlneri* Tibell 2 [UMFK]
#*M. arenarium* (Hampe ex A. Massal.) Tibell 1, 2 [UMFK]
Miriquidica leucophaea (Rabenh.) Hertel & Rambold 2 [EgH, CANL]
**Monodictys epilepraria* Kukwa & Diederich 2 [NY]
Montanelia disjuncta (Erichsen) Divakar et al. (syn. *Melanelia disjuncta* (Erichsen) Essl.) 1, 2 [NY]
M. panniformis (Nyl.) Divakar et al. (syn. *Melanelia panniformis* (Nyl.) Essl.) 1, 2 [EgH]
M. soorediata (Ach.) Divakar et al. (syn. *Melanelia soorediata* (Ach.) Goward & Ahti) 1, 2 [EgH, MSC]
**Muellerella lichenicola* (Sommerf.) D. Hawksw. 1, 2 [NY]
**M. polyspora* Hepp ex Müll. Arg. 2 [CANL]
**M. pygmaea* (Körb.) D. Hawksw. 2 [EgH]
Multiclavula mucida (Fr.) R. Petersen 2 [MAINE]
Mycobilimbia berengeriana (A. Massal.) Hafellner & V. Wirth (syn. *Lecidea berengeriana* (A. Massal.) Nyl.) 1, 2 [EgH, NY]
M. epixanthoides (Nyl.) Vitik. et al. 2 [NY]
M. tetramera (De Not.) Vitik. et al. 2 [CANL]
Mycoblastus affinis (Schaer.) Schauer (syn. *M. alpinus* (Fr.) Hellb.) 2 [NY]
M. caesius (Coppins & P. James) Tønsberg 1, 2 [EgH, MSC]
M. sanguinarioides Kantvilas 1, 2 [EgH, MSC]
+*Mycocalicium subtile* (Pers.) Szatala 1, 2 [EgH]
Myelochroa aurulenta (Tuck.) Elix & Hale 2 [NY]
M. galbina (Ach.) Elix & Hale 1, 2 [NY]
Myriolecis dispersa (Pers.) Śliwa et al. (syn. *Lecanora dispersa* (Pers.) Rohl.) 2 [MSC, NY]
M. aff. contractula (Nyl.) Śliwa et al. (syn. *Lecanora contractula* Nyl.) 2 [CANL]
M. cf. schofieldii (Brodo) Śliwa et al. (syn. *Lecanora schofieldii* Brodo) 2 [CANL]
M. straminea (Wahlenb. ex Ach.) Śliwa et al. (syn. *Lecanora straminea* Wahlenb. ex Ach.) 2 [NY]
M. zosteræ (Ach.) Śliwa et al. var. *zosteræ* (syn. *Lecanora zosteræ* var. *zosteri*) 2 [EgH, CANL]
M. zosteræ (Ach.) Śliwa et al. “var. *beringii* (Nyl.)” ined. (syn. *Lecanora zosteræ* (Ach.) Nyl. var. *beringii* (Nyl.) Śliwa) 2 [CANL]
Myriospora smaragdula (Wahlenb. ex Ach.) K. Knudsen & L. Arcadia (syn. *Acarospora smaragdula* (Wahlenb.) A. Massal., *Silobia smaragdula* (Wahlenb.) M. Westb. & Wedin) 2 [MSC, NY]
Nadvornikia soorediata R.C. Harris 2 [NY]

- Nephroma helveticum* Ach. subsp. *helveticum* 1, 2 [EgH]
N. laevigatum Ach. 2 [EgH]
N. parile (Ach.) Ach. 1, 2 [EgH]
Normandina pulchella (Borrer) Nyl. 2 [EgH, CANL, MSC]
Ochrolechia androgyna (Hoffm.) Arnold 1, 2 [EgH, CANL]
O. arborea (Kreyer) Almb. 1, 2 [EgH, CANL, NY]
O. mexicana Vain. 2 [NY]
O. microstictoides Räsänen 2 [NY]
O. pseudopallescens Brodo 1, 2 [CANL, MSC, NY]
O. trochophora (Vain.) Oshio var. *trochophora* 1, 2 [EgH]
O. turneri (Sm.) Hasselrot 2 [EgH, NY]
O. yasudae Vain. 2 [MAINE]
Pannaria rubiginosa (Ach.) Bory s.l. 2 [MSC]
P. tavaresii P.M. Jørg. 2 [NY]
Parmelia fertilis Müll. Arg. 2 [NY]
P. neodiscordans Hale 2 [NY]
P. omphalodes (L.) Ach. subsp. *omphalodes* 1, 2 [EgH]
P. omphalodes subsp. *pinnatifida* (Kurok.) Skult 2 [EgH]
P. saxatilis (L.) Ach. 1, 2 [EgH, CANL]
P. squarrosa Hale 1, 2 [EgH, CANL]
P. sulcata Taylor 1, 2 [EgH]
Parmeliella appalachensis P.M. Jørg. 2 [NY]
P. triptophylla (Ach.) Müll. Arg. 1, 2 [EgH, CANL]
Parmeliopsis ambigua (Wulfen) Nyl. 1, 2 [NY]
P. capitata R.C. Harris 1, 2 [EgH]
P. hyperopta (Ach.) Arnold 1, 2 [NY]
Parmotrema arnoldii (Du Rietz) Hale 2 [MAINE]
Parmotrema crinitum (Ach.) M. Choisy 1, 2 [EgH]
P. perlatum (Huds.) M. Choisy 1, 2 [EgH]
P. reticulatum (Taylor) M. Choisy 2 [EgH]
P. stuppeum (Taylor) Hale 2 [EgH]
Peltigera aphthosa (L.) Willd. 2 [NY]
P. canina (L.) Willd. 1(?), 2 [MAINE, MSC]
P. degenii Gyeln. 1, 2 [EgH]
P. didactyla (With.) J.R. Laundon 2 [EgH]
P. elisabethae Gyeln. 2 [EgH]
P. extenuata (Vain.) Lojka 2 [NY]
P. horizontalis (Huds.) Baumg. 2 [EgH]
P. lepidophora (Nyl. ex Vain.) Bitter 2 [EgH]
P. neckeri Hepp ex Müll. Arg. 2 [NY]
P. polydactylon (Neck.) Hoffm. 2 [EgH, CANL]
P. praetextata (Flörke ex Sommerf.) Zopf 1, 2 [EgH]
P. rufescens (Weiss) Humb. 2 [EgH, MSC]
Pertusaria alpina Hepp ex Ahles 1, 2 [EgH]

- P. consocians* Dibben 1, 2 [EgH, CANL]
P. globularis (Ach.) Tuck. 2 [CANL, NY]
P. leioplaca DC. 1, 2 [MAINE]
P. macounii (I.M. Lamb) Dibben 1, 2 [EgH, CANL]
P. neoscotica I.M. Lamb 2 [EgH]
P. propinqua Müll. Arg. 2 [EgH]
P. rubefacta Erichsen 2 [EgH]
P. sulcata Dibben 1, 2 [NY]
**Phacopsis oxyspora* (Tul.) Tiebel & Rambold (syn. *Nesolechia oxyspora* (Tul.) A. Massal.) 1, 2 [MRDS]
+Phaeocalicium betulinum (Nyl.) Tibell 2 [UMFK]
+P. compressulum (Nyl. ex Vain.) A.F.W. Schmidt 1, 2 [EgH, CANL, NY]
+P. curtisii (Tuck.) Tibell 2 [NY]
+P. matthewsianum Selva & Tibell 1, 2 [UMFK]
+P. polyporaeum (Nyl.) Tibell 1, 2 [CANL, NY]
Phaeophyscia adiantola (Essl.) Essl. 2 [NY]
P. ciliata (Hoffm.) Moberg 2 [EgH]
P. pusilloides (Zahlbr.) Essl. 1, 2 [EgH]
P. rubropulchra (Degel.) Essl. 2 [EgH]
P. sciastra (Ach.) Moberg 2 [EgH]
**Phaeopyxis punctum* (A. Massal.) Rambold et al. 1, 2 [NY]
Phlyctis agelaea (Ach.) Flot. 1 [EgH]
P. argena (Spreng.) Flot. s. str. 1, 2 [EgH]
P. speirea G. Merr. 1, 2 [EgH]
**Phoma lobariae* Diederich & Etayo 2 [MIN]
Physcia adscendens (Fr.) H. Olivier 1, 2 [EgH, CANL]
P. aipolia (Ehrh. ex Humb.) Fűrnr. var. *aipolia* 1, 2 [NY]
P. caesia (Hoffm.) Fűrnr. 1, 2 [CANL]
P. dubia (Hoffm.) Lettau 2 [MAINE]
P. millegrana Degel. 1, 2 [EgH]
P. phaea (Tuck.) J.W. Thomson 1, 2 [EgH]
P. stellaris (L.) Nyl. 2 [EgH]
P. subtilis Degel. s.l. 2 [EgH]
P. tenella (Scop.) DC. 1, 2 [EgH]
Physciella chloantha (Ach.) Essl. 1, 2 [EgH]
P. melanchra (Hue) Essl. 2 [MAINE]
Physconia detera (Nyl.) Poelt 1, 2 [EgH, NY]
P. grumosa Kashiw. & Poelt 2 [MAINE]
P. leucoleiptes (Tuck.) Essl. 2 [EgH]
Pilophorus cereolus (Ach.) Th. Fr. in Hellbom 2 [NY]
Placidium squamulosum (Ach.) Breuss 2 [MSC, NY]
Placynthiella hyporhoda (Th. Fr.) Coppins & P. James 2 [MSC]
P. icmalea (Ach.) Coppins & P. James 1, 2 [EgH, CANL]
P. oligotrophia (J.R. Laundon) Coppins & P. James 1, 2 [NY]

- P. uliginosa* (Schrad.) Coppins & P. James 1, 2 [EgH]
Placynthium flabellum (Tuck) Zahlbr. 2 [EgH]
Platismatia glauca (L.) W.L. Culb. & C.F. Culb. 1, 2 [EgH]
P. tuckermanii (Oakes) W.L. Culb. & C.F. Culb. 1, 2 [EgH, CANL]
Polycauliona polycarpa (Hoffm.) Frödén et al. (syn. *Xanthoria polycarpa* (Hoffm.) Th. Fr. ex Rieber) 1, 2 [EgH]
P. verruculifera (Vain.) Arup et al. (syn. *Caloplaca verruculifera* (Vain.) Zahlbr.) 2 [EgH]
Polysporina simplex (Davies) Vězda 2 [EgH]
Porina scabrida R.C. Harris 2 [NY]
Porocyphus coccodes (Flot.) Körb. 2 [MSC]
Porpidia albocaerulescens (Wulfen) Hertel & Knoph 1, 2 [CANL]
P. cinereoatra (Ach.) Hertel & Knoph 1, 2 [EgH, CANL, NY]
P. contraponenda (Arnold) Knoph & Hertel (syn. *P. diversa* (J. Lowe) Gowan) 1, 2 [EgH, CANL]
P. crustulata (Ach.) Hertel & Knoph 1, 2 [EgH, CANL, MSC]
P. degelii (H. Magn.) Lendemer 2 [MSC]
P. macrocarpa (DC.) Hertel & A.J. Schwab 1, 2 [EgH]
P. ochrolemma (Vain.) Brodo & R. Sant. 2 [MAINE, MSC]
P. soredizodes (Lamy ex Nyl.) J.R. Laundon 2 [NY]
P. subsimplex (H. Magn.) Fryday (syn. *P. tahawasiana* Gowan) 1, 2 [CANL, MSC, NY]
P. tuberculosa (Sm.) Hertel & Knoph 1, 2 [EgH, CANL]
**Pronectria oligospora* Lowen & Rogerson 1 [DLH]
Protopannaria pezizoides (Weber) P.M. Jørg. & S. Ekman 1, 2 [CANL, NY]
Protoparmelia badia (Hoffm.) Hafellner 1, 2 [EgH, CANL]
P. hypotremella Herk et al. 2 [MAINE, with *Sphinctrina turbinata*]
Protoparmeliopsis muralis (Schreber) M. Choisy 2 [MAINE]
Pseudevernia cladonia (Tuck.) Hale & W.L. Culb. 1, 2 [EgH, CANL]
P. consocians (Vain.) Hale & W.L. Culb. 1, 2 [EgH]
Pseudocyphellaria aff. *perpetua* McCune & Miadl. 1, 2 [EgH]
Pseudosagedia guentheri (Flot.) Hafellner & Kalb 2 [MSC]
Psilolechia lucida (Ach.) M. Choisy 1, 2 [EgH, CANL]
Psorula rufonigra (Tuck.) Gotth. Schneid. 2 [EgH, MSC]
Punctelia appalachensis (W.L. Culb.) Krog 2 [EgH]
P. caseana Lendemer & Hodkinson 1, 2 [EgH]
P. rudecta (Ach.) Krog 1, 2 [EgH, CANL]
Pycnothelia papillaria Dufour 1, 2 [EgH, CANL]
**Pyrenidium actinellum* Nyl. 1 [EgH]
**P. aggregatum* K. Knudsen & Kocourk. 2 [NY]
Pyrenocarpon thelostomum (Ach. ex J. Harriman) Coppins & Aptroot 2 [MSC]
Pyrenula pseudobufonia (Rehm) R.C. Harris 1, 2 [EgH, CANL]
Pyrrhospora varians (Ach.) R.C. Harris (syn. *Lecidea varians* Ach.) 1, 2 [EgH, CANL, MSC]

- Pyxine sorediata* (Ach.) Mont. 1, 2 [EgH]
Ramalina americana Hale 2 [EgH]
R. farinacea (L.) Ach. 1, 2 [EgH]
R. intermedia (Delise ex Nyl.) Nyl. 1, 2 [EgH]
R. roesleri (Hochst. ex Schaer.) Hue 1, 2 [EgH]
R. thrausta (Ach.) Nyl. 2 [EgH]
Ramboldia elabens (Fr.) Kantvilas & Elix 1, 2 [EgH, MSC, CANL]
Rhizocarpon cinereovirens (Müll. Arg.) Vain. 1, 2 [NY]
R. disporum (Nägeli ex Hepp) Müll. Arg. 2 [MSC]
R. distinctum Th. Fr. 1, 2 [MSC]
R. eupetraeoides (Nyl.) Blomb. & Forssell 2 [EgH]
R. eupetraeum (Nyl.) Arnold 1, 2 [CANL, MSC, NY]
R. geminatum Körb. 1, 2 [MAINE, MSC]
R. geographicum (L.) DC. 1, 2 [EgH]
R. grande (Flörke ex Flot.) Arnold 1, 2 [EgH, CANL, MSC]
R. hochstetteri (Körb.) Vain. 1 [EgH, CANL]
R. infernulum (Nyl.) Lyngbe (incl. f. *sylvaticum* Fryday) 1, 2 [EgH, CANL]
R. lavatum (Fr.) Hazsl. 2 [EgH, CANL]
R. lecanorinum Anders 1, 2 [EgH, CANL]
R. polycarpum (Hepp) Th. Fr. 1, 2 [MSC]
R. postumum (Nyl.) Arnold 2 [NY]
R. reductum Th. Fr. 1, 2 [EgH, CANL, MSC]
R. rubescens Th. Fr. (syn. *R. plicatile* (Leight.) A.L. Sm.) 1, 2 [EgH, CANL, MSC]
R. subgeminatum Eitner 1, 2 [EgH, CANL, MSC]
R. timdalii Ihlen & Fryday 2 [CANL, MSC]
Rhizoplaca subdiscrepans (Nyl.) R. Sant. 2 [EgH]
Rimularia badioatra (Kremp.) Hertel & Rambold 2 [NY]
R. gibbosa (Ach.) Coppins et al. 2 [MSC]
Rinodina adirondackii H. Magn. 2 [NY]
R. ascociscana Tuck. 2 [EgH]
R. buckii Sheard et al. 2 [EgH]
R. degeliana Coppins 2 [EgH, CANL]
R. efflorescens Malme 2 [CANL, NY]
R. freyi H. Magn. (syn. *R. magnussonii* Sheard) 2 [CANL]
R. gennarii Bagl. 2 [CANL, NY]
R. subminuta H. Magn. 2 [EgH]
R. tephraspis (Tuck.) Herre 2 [CANL]
R. willeyii Sheard & Giralt 2 [CANL, NY]
Ropalospora chlorantha (Tuck.) S. Ekman 1, 2 [EgH, CANL, MSC]
R. viridis (Tønsberg) Tønsberg 1, 2 [EgH, CANL, NY]
Rostania occultata (Bagl.) Otálora et al. (syn. *Collema occultatum* Bagl.) 2 [EgH]
Rufoplaca arenaria (Pers.) Arup et al. (syn. *Caloplaca arenaria* (Pers.) Müll. Arg.; *Blastenia ammiospila* (Ach.) Arup et al.) 2 [EgH]

- Rusavskia elegans* (Link) S.Y. Kondr. & Kärnefelt (syn. *Xanthoria elegans* (Link) Th. Fr.) 1, 2 [EgH, CANL, MSC]
- Sarcogyne hypophaea* (Nyl.) Arnold (syn. *S. privigna* auct.) 1, 2 [MSC]
- S. similis* H. Magn. 2 [MSC]
- Sarcosagium campestre* (Fr.) Poetsch & Schied. 2 [MSC]
- **Sclerococcum simplex* D. Hawksw. 2 [NY]
- Scoliciosporum chlorococcum* (Stenh.) Vězda 2 [EgH]
- S. pruinsum* (P. James) Vězda 2 [EgH]
- S. umbrinum* (Ach.) Arnold 1, 2 [CANL, MSC]
- +*Sarea difformis* (Fr.) Fr. 2 [EgH]
- +*S. resinae* (Fr.) Kuntze 2 [CANL, NY]
- Scytinium imbricatum* (P.M. Jørg.) Otálora et al. (syn. *Leptogium imbricatum* P.M. Jørg.) 2 [MAINE]
- S. tenuissimum* (Dicks.) Otálora et al. (syn. *Leptogium tenuissimum* (Dicks.) Körb.) 2 [MAINE]
- S. cf. teretiusculum* (Wallr.) Otálora et al. (syn. *Leptogium teretiusculum* (Wallr.) Arnold) 2 [EgH]
- **Skyttea gregaria* Sherwood et al. 2 [NY]
- **S. nitschkei* (Körb.) Sherwood et al. 2 [NY]
- **S. richardsonii* Iturr. & D. Hawksw. 1 [NY]
- **Sphaerellothecium coniodes* (Nyl.) Cl. Roux & Diederich 2 [NY]
- **Sphaerellothecium reticulatum* (Zopf) Etayo (syn. *Echinothecium reticulatum* Zopf) 2 [DLH]
- Sphaerophorus globosus* (Huds.) Vain. s.l. 2 [EgH, NY]
- **Sphinctrina anglica* Nyl. 2 [MAINE]
- **S. turbinata* (Pers.: Fr.) De Not. 2 [NY]
- Spilonema revertens* Nyl. 2 [EgH, with *Psorula*]
- **Spirographa fusisporella* (Nyl.) Zahlbr. 1 [DLH]
- Sporodictyon cruentum* (Körb.) Körb. (syn. *Polyblastia cruenta* (Körb.) P. James & Swinscow) 2 [CANL]
- Staurothele fissa* (Taylor) Zwackh 2 [CANL]
- Steinia geophana* (Nyl.) Stein 2 [MSC]
- +*Stenocybe major* Nyl. ex Körb. 1, 2 [EgH]
- +*S. pullatula* (Ach.) Stein 1, 2 [EgH]
- Stereocaulon condensatum* Hoffm. 1, 2 [EgH, MSC]
- S. dactylophyllum* Flörke 1, 2 [EgH, CANL, MSC]
- S. glaucescens* Tuck. var. *glaucescens* 1, 2 [NY]
- S. intermedium* (Savicz) H. Magn. 2 [EgH]
- S. nanodes* Tuck. 2 [MAINE]
- S. paschale* (L.) Hoffm. 2 [EgH]
- S. pileatum* Ach. 1, 2 [EgH, CANL, MSC]
- S. saxatile* H. Magn. 1, 2 [EgH]
- S. subcoralloides* (Nyl.) Nyl. 1, 2 [EgH, MSC]
- S. tomentosum* Fr. 1, 2 [EgH]

Stictis urceolatum (Ach.) Gilenstam (syn. *Conotrema urceolatum* (Ach.) Tuck.)
1, 2 [EgH]

**Stigidium fuscatae* (Arnold) R. Sant. 2 [NY]

**S. marinum* (Deakin) Swinscow 1, 2 [CANL]

Strigula stigmatella (Ach.) R.C. Harris 2 [NY]

**Taeniolella cladinicola* Alstrup 2 [DLH]

Thelocarpon impressellum Nyl. 2 [NY]

T. laureri (Flot.) Nyl. 2 [CANL, NY]

Thelotrema lepadinum (Ach.) Ach. 2 [NY]

T. suecicum (H. Magn.) P. James 2 [NY]

Trapelia coarctata (Sm.) M. Choisy 1, 2 [EgH, CANL]

T. corticola Coppins & P. James 2 [MSC, NY]

T. glebulosa (Sm.) J.R. Laundon 1, 2 [EgH, CANL, MSC, NY]

T. placodioides Coppins & P. James 2 [CANL, NY]

T. stipitata Brodo & Lendemer 2 [CANL, NY]

Trapeliopsis flexuosa (Fr.) Coppins & P. James 1 [EgH]

T. granulosa (Hoffm.) Lumbsch 1, 2 [EgH, CANL]

T. viridescens (Schröd.) Coppins & P. James 2 [EgH]

**Tremella cladoniae* Diederich & M.S. Christ. 2 [NY]

**T. coppinsii* Diederich & G. Marson 2 [NY]

**T. everniae* Diederich 1, 2 [EgH]

Trypethelium virens Tuck. ex E. Michener 1, 2 [EgH, CANL]

Tuckermanopsis americana (Spreng.) Hale 1, 2 [EgH]

T. orbata (Nyl.) M.J. Lai 1, 2 [EgH, CANL]

T. sepincola (Ehrh.) Hale 2 [MAINE]

Umbilicaria deusta (L.) Baumg. 1, 2 [EgH, CANL, MSC]

U. mammulata (Ach.) Tuck. 1, 2 [EgH, CANL]

U. muhlenbergii (Ach.) Tuck. 1, 2 [EgH, CANL]

U. torrefacta (Lightf.) Schröd. 2 [MAINE]

Usnea ceratina Ach. 1, 2 [EgH, CANL]

U. cornuta Körb. subsp. *cornuta* 1, 2 [EgH]

U. dasopoga (Ach.) Nyl. (syn. *U. diplotypus* Vain.; *U. filipendula* Stirt.) 1, 2
[EgH]

U. flavocardia Räsänen 2 [G]

U. fragilescens Hav. ex Lynge var. *mollis* (Vain.) P.Clerc 2 [G]

U. halei P.Clerc 2 [G]

U. glabrescens var. *fulvoreagens* Räsänen (syn. *U. fulvoreagens* (Räsänen)
Räsänen) 1, 2 [HgH]

U. hirta (L.) F.H. Wigg. 1, 2 [EgH]

U. longissima Ach. 1, 2 [EgH]

U. macaronesica P. Clerc 2 [G, MAINE]

U. merrillii Motyka 1, 2 [NY]

U. praetervisa (Asah.) P. Clerc 2 [NY]

U. silesiaca Motyka 2 [NY]

- U. strigosa* (Ach.) Eaton subsp. *strigosa* 1, 2 [EgH]
U. subfloridana Stirt. 1, 2 [EgH]
U. subfusca Stirt. 2 [MAINE]
U. subgracilis Vain. (syn. *U. hesperina* Motyka; *U. schadenbergiana* sensu P.Clerc, non Göpp. & Stein) 1, 2 [NY]
U. subrubicunda P. Clerc 1, 2 [EgH, G, NY]
U. trichodea Ach. 1, 2 [EgH, NY]
U. wasmuthii Räsänen 2 [MAINE]
Usneocetraria oakesiana (Tuck.) M.J. Lai & J.C. Wei (syn. *Allocetraria oakesiana* (Tuck.) Randlane & Thell) 1, 2 [EgH]
Varicellaria velata (Turner) I. Schmitt & Lumbsch (syn. *Pertusaria velata* (Turner) Nyl.) 1, 2 [EgH]
Variolaria amara Ach. (syn. *Pertusaria amara* (Ach.) Nyl.) 1, 2 [EgH, CANL]
V. multipunctoides (Dibben) Lendemer et al. (syn. *Pertusaria multipunctoides* Dibben) 1, 2 [EgH, CANL]
V. ophthalmiza Nyl. (syn. *Pertusaria ophthalmiza* (Nyl.) Nyl.) 1, 2 [EgH, CANL]
V. pustulata (Brodo & W.L. Culb.) Lendemer et al. (syn. *Loxospora pustulata* (Brodo & W.L. Culb.) R.C. Harris) 1, 2 [EgH, CANL]
V. trachythallina (Erichsen) Lendemer et al. (syn. *Pertusaria trachythallina* Erichsen) 2 [EgH]
V. waghornei (Hulting) Darb. (syn. *Pertusaria waghornei* Hulting) 2 [EgH]
Verrucaria aethiobola Wahlenb. 2 [NY]
V. degelii R. Sant. 1, 2 [NY]
V. ditmarsica Erichsen 1, 2 [CANL]
V. erichsenii Zschacke 2 [EgH, CANL]
V. halizoa Leight. 1 [EgH]
V. margacea (Wahlenb.) Wahlenb. (syn. *V. andesiatica* Servit) 2 [CANL]
V. muralis Ach. 2 [MSC]
Vezdaea acicularis Coppins 2 [MSC]
Violella fucata (Stirt.) T. Sprib. (syn. *Mycoblastus fucatus* (Stirt.) Zahlbr.) 2 [NY]
**Vouauxiella lichenicola* (Linds.) Petr. & Syd. 2 [MIN, NY]
Vulpicida pinastri (Scop.) J.-E. Mattsson & M.J. Lai 1, 2 [EgH]
Wahlenbergiella mucosa (Wahlenb.) Gueidan & Thüs (syn. *Verrucaria mucosa* Wahlenb.) 1, 2 [CANL, EgH]
W. striatula (Wahlenb.) Gueidan & Thüs (syn. *Verrucaria striatula* Wahlenb.) 1, 2 [CANL]
Xanthoparmelia augustiphylla (Gyeln.) Hale 2 [EgH]
X. conspersa (Ehrh. ex Ach.) Hale 1, 2 [EgH]
X. cumberlandia (Gyeln.) Hale 1, 2 [EgH]
X. plittii (Gyeln.) Hale 2 [NY]
X. viriduloumbrina (Gyeln.) Lendemer 1, 2 [EgH]
Xanthoria parietina (L.) Th. Fr. 1, 2 [EgH, MSC]
Xylographa disseminata Willey 1 [MSC, NY]
X. opegraphella Nyl. ex Rothr. 1, 2 [EgH, CANL, NY]

X. parallela (Ach.: Fr.) Behlen & Desberger 1, 2 [EgH]

X. trunciseda (Th. Fr.) Minks ex Desberger 2 [CANL]

X. vitiligo (Ach.) J.R. Laundon 2 [EgH]

Xylopsora friesii (Ach.) Bendiksby & Timdal (syn. *Hypocenomyce friesii* (Ach.) P. James & Gotth. Schneid.) 2 [NY]

Unsubstantiated reports of species from Eagle Hill and its vicinity

The following 66 species, compiled from unverified class lists, lack voucher material. Many of these may occur within the study area, but require confirmation.

**Abrothallus halei* Pérez-Ortega et al. 2

**A. usneae* Rabenh. 2

Arthonia patellulata Nyl. 1 &/or 2

Bacidia diffracta S. Ekman 2

Bacidina egenula (Nyl.) Vězda 2

Baeomyces placophyllus Ach. 1

Buellia spuria (Schaer.) Anzi 2

Caloplaca camptidia (Tuck.) Zahlbr. 2

C. feracissima H. Magn. 2

Carbonea vorticosa (Flörke) Hertel 2

Catillaria nigroclavata (Nyl.) Schuler 2

+*Chaenothecopsis savonica* (Räsänen) Tibell 1, 2

**C. viridialba* (Kremp.) A.F.W. Schmidt 1 and/or 2

Cladonia cenotea var. *exaltata* (Vain.) Vain. 2

C. peziziformis (With.) J.R. Laundon 2

Collema nigrescens (Huds.) DC. 1

Fuscidea praeruptorum (Du Rietz & H. Magn.) V. Wirth & Vězda 2

Gyalolechia flavovirescens (Wulfen) Søchting et al. (syn. *Caloplaca flavovirescens* (Wulfen) Dalla Torre & Sarnth) 2

Lecanora albellula Nyl. 1 and/or 2

L. argentata (Ach.) Malme (syn. *L. subrugosa* Nyl.) 1, 2

L. cenisia Ach. 1 and/or 2

L. intricata (Ach.) Ach. 2

L. sambuci (Pers.) Nyl. 1 and/or 2

Lecidea confluens (Weber) Ach. 1 and/or 2

L. diducens Nyl. 2

L. lapicida (Ach.) Ach. 1 and/or 2

Lecidella carpathica Körb. 2

L. euphorea (Flörke) Hertel 2

#*Leptorhaphis epidermidis* (Ach.) Th. Fr. 2

Melanelixia subargentiifera (Nyl.) O. Blanco et al. 2

Micarea cinerea (Schaer.) Hedl. 2

**Muellerella erratica* (A. Massal.) Hafellner & V. John (syn. *M. pygmaea* var. *athallina* (Müll. Arg.) Triebel) 1, 2

- Mycobilimbia pilularis* (Körb.) Hafellner & Türk (syn. *Biatora sphaeroides* (Dicks.) Körb.) 2
- +*Mycoglaena myricae* (Nyl.) R.C. Harris 2
- Myriolecis hagenii* (Ach.) Ach. 2
- Ochrolechia frigida* (Sw.) Lynge 2
- Peltigera hymenina* (Ach.) Delise 1, 2
- Pertusaria paratuberculifera* Dibben 1 and/or 2
- P. subobducens* Nyl. 2
- P. texana* Müll. Arg. 2
- +*Phaeocalicium populneum* (Brond. ex Duby) A.F.W. Schmidt 2
- Physconia enteroxantha* (Nyl.) Poelt 2
- Placynthium nigrum* (Huds.) Gray 2
- **Pronectria anisospora* (Lowen) Lowen 1 and/or 2
- Pseudosagedia chlorotica* (Ach.) Hafellner & Kalb 2
- Racodium rupestre* Pers. 2
- Ramalina dilacerata* (Hoffm.) Hoffm. 1, 2
- Ramboldia cinnabarina* (Sommerf.) Kalb et al. 2
- Rhizocarpon petraeum* (Wulfen) A. Massal. 1, 2
- R. riparium* Räsänen 1
- Sarcogyne clavus* (DC.) Kremp. 1, 2
- Scytinium lichenoides* (L.) Otálora et al. (syn. *Leptogium lichenoides* (L.) Zahlbr.) 1, 2
- **Skyttea caesii* Diederich & Etayo 2
- **Sphinctrina tubaeformis* A. Massal. 2
- Stereocaulon glaucescens* var. *caespitosulum* (Nyl.) I.M. Lamb 2
- Thelidium incavatum* Nyl. ex Mudd 1 and/or 2
- **Tremella hypogymniae* Diederich & M.S. Christ. 1
- **T. pertusariae* Diederich 2
- Tuckermanella fendleri* (Nyl.) Essl. 1
- Tuckermanopsis ciliaris* (Ach.) Gyeln. 1, 2
- Umbilicaria polyphylla* (L.) Baumg. 2
- Usnea cavernosa* Tuck. 1
- U. cornuta* subsp. *brasiliensis* (Zahlbr.) P. Clerc (syn. *U. brasiliensis* (Zahlbr.) Motyka) 2
- U. lapponica* Vain. 2
- Verrucaria hydrela* Ach. 1 and/or 2
- V. nigrescens* Pers. 2

Notes on New Records and Some Interesting Taxa

Alyxoria ochrocheila

This record represents a surprising disjunction from the species' main distribution range in Mexico and along the southwestern coast of the US (Ertz and Egea 2007), but the species was reported from Cape Breton Island by Selva et al. (2004) (vouchers listed in CNALH 2017 sub *Opegrapha ochrocheila*), and there are 2

verified records from New Brunswick reported in CNALH (2017) from the New Brunswick Museum [NBM] (S. Clayden, New Brunswick Museum, St. John, NB, Canada, pers. comm.). When present, the orange pruina of the ascomatal margins (reacting KOH+ purple) is distinctive and diagnostic when combined with the 4-celled spores and long, 1–3 septate conidia. The Eagle Hill voucher lacks any white pruina on the ascomatal disk (A. Fryday, Herbarium, Michigan State University, East Lansing, MI, pers. comm.), a feature of the very similar *Alyxoria bicolor* (R.C. Harris & Lendemer) Ertz & Tehler, recently described from Pennsylvania (Harris and Lendemer 2005). (Maine, Washington County, Steuben, Eagle Hill Institute, Blue trail, 44.4605°N, 67.9265°W, on *Betula alleghaniensis*, A. Fryday 10503, 17 June 2013 [MSC]).

Bryoria kockiana

Based on molecular studies of mainly northwestern material, Velmala et al. (2014) concluded that North American non-sorediate specimens of *Bryoria* containing psoromic acid in the thallus and formerly called *B. implexa* (Hoffm.) Brodo & D. Hawksw. belong to a North American endemic species that they named *B. kockiana*. For the present, we are assuming that northeastern specimens belong to the same species and not the European *B. implexa* s. str., which is often sorediate and has conspicuous white pseudocyphellae. In North America, psoromic acid-containing specimens are never sorediate and the pseudocyphellae are less conspicuous.

Chaenotheca balsamconensis

This small stubble lichen, which grows on a common bracket fungus (*Trichaptum abietinum*) on conifers, has only recently been described (Allen and McMullin 2015). It is distinguished by its smooth spores and K+ red stalks and apparently has an Appalachian–Great Lakes distribution, with 1 report from British Columbia. *Phaeocalicium polyporaenum* (Nyl.) Tibell grows on a similar substrate (*Trichaptum bifforme*, restricted to hardwoods) and has the same general appearance but is even smaller; it also has ellipsoid, 2-celled spores.

Cladonia albonigra

This species, described from the Pacific Northwest (Brodo and Ahti 1996), is an oceanic coastal lichen. Several specimens from New Brunswick are listed in CNALH (2017) based on R.C. Harris collections deposited in NY. It is new to Maine and New England. (Canada, New Brunswick, Charlotte County, Lepreau Parish, New River Beach Provincial Park, N end of Park, along New River just S of NB780 crossing, gravelly berm on roadside, 45.17556°N 66.54333°W, R.C. Harris 56734, 1 May 2011 [NY]).

Cornutispora pyramidalis

This species, a parasite of Parmeliaceous foliose lichens, described from Spain and France (Etayo 2010), is new for North America. The Maine specimen was found growing on *Parmelia squarrosa*. Its triangular conidia resemble those of *Cornutispora triangularis* Etayo & Diederich, a parasite of *Pertusaria* species

(Etayo and Diederich 1995), but are much smaller (4–5 μm vs. 11–17 μm from one apex to another in *C. triangularis*). There are also specimens of *C. pyramidalis* in NY from Alabama, Connecticut, and West Virginia, as well as one from Parc National de la Parc Gaspésie, QC, Canada. (Maine, Washington County: Cutler, Cutler Public Reserve Land, Coastal Trail, R.C. Harris 54639, 4 July 2008 [NY]).

Ephebe solida

This species, a rare lichen throughout its range, was previously unrecorded from Maine. In addition to the excellent description in Hinds and Hinds (2007), we can add that the thick branches of *E. solida* (up to 260 μm in diam.) are solidly pseudoparenchymatous. Other species have branches up to 150 μm in diam. and have elongated cells in the center. (Maine, Washington County: 6.7 km northwest of Cherryfield, at the end of Sprague Falls Road. Rocks along the Narraguagus River. 44°38'42"N, 67°59'39"W, elev. 32 m. I.M. Brodo 33436, 11 July 2016 [CANL]).

Epicladonia stenospora

This species, new for the North American list, was found growing on *Cladonia ochrochlora* in a conifer forest. The conidia are 7.2–(8.1)–9 x 3.3–(3.9)–4.6 μm , somewhat broader than those described by Hawksworth (1981). Other specimens in NY are from Rockport, ME, as well as Tennessee and South Carolina. (Maine, Washington County: Beals, Great Wass Island Preserve. R C. Harris 57524, 29 June 2012 [NY]).

Heterodermia neglecta

Most, if not all, of the northeastern material named as *H. obscurata* (Nyl.) Trevis. because of a spotty orange lower surface, or *H. japonica* (M. Satô) Swinscow & Krog (syn. *H. propagulifera* (Vain.) J.P. Dey) due to frequent production of norstictic acid, has turned out to be the recently described *H. neglecta* (Lendemer et al. 2007). Rather than having a uniformly orange lower surface as seen in *H. obscurata*, the pigmentation of *H. neglecta* is limited to a few lobe tips. In addition, most thalli contain norstictic acid (K⁺ red medulla); *H. obscurata* s. str. lacks that compound and is southeastern. All 3 of the above taxa are discussed fully by Lendemer et al. (2007).

***Laeviomyces pertusariicola* (syn. *Lichenodiplus pertusariicola* (Nyl.) Diederich)**

Although Esslinger (2016) lists this name (under *Lichenodiplus*) as an “incorrect record” based on Diederich (2003), the latter only contains a note on its reclassification into the genus *Laeviomyces*. It should therefore be reinstated in the North American list. Its retention in *Laeviomyces* was supported by Zhurbenko and Otte (2012).

***Lambiella fuscusora* (syn. *Rimularia fuscusora* Muhr & Tønsberg)**

This species is new to North America and also to Ontario, Canada, as well as the Eagle Hill area. Both specimens are sterile, so the determinations are tentative. They are paler than the isotype, and the soralia are not as discrete, but they do have

some of the distinctive and diagnostic brown corticate soredia on the edges of the soralia, which, however, contain mostly pale soredia. *L. fuscosora* is the only sorediate *Lambiella* on bark, and it contains norstictic acid alone, agreeing with our results from thin-layer chromatography. This characteristic distinguishes it from *Buellia griseovirens*, which contains atranorin as well as norstictic acid. The thallus is brownish, especially noticeable on the Ontario specimen, which is on *Betula papyrifera*, and agrees with the description (Muhr and Tønsberg 1989, Tønsberg 1992). *Phlytis argena* is a similar lichen when sterile, but it has a white thallus and yellowish white soredia. (Maine, Hancock County: Black Mountain trail, just south of Tunk Lake. 44°34'54"N, 68°06'25"W, elev. ~175–250 m. *Acer* forest grading into *Picea rubens* at ~230 m. I.M. Brodo 31344, 12 August 2003. [CANL]; Canada, Ontario: Algoma District, Lake Superior Provincial Park, Sand River Trail, Hwy. 17 by waterfalls. Mixed forest, 47°26'N, 84°44'W, on dead *Betula papyrifera*, S. & S.D. Sharnoff 1118.06, 14 July 1993 [CANL]).

Lecanora chlarotera* vs. *L. rugosella* and *L. subrugosa* vs. *L. argentata

The North American species centered around *L. chlarotera* are in need of revision; for example, recent studies have supported the widespread opinion among European lichenologists that *L. rugosella* is only a rugose form of *L. chlarotera* (see especially Malíček 2014). The *L. rugosella* of North American authors appears to be morphologically and chemically distinct, and preliminary genetic studies support the conclusion that it may be different (J. Malíček, Academy of Sciences, Institute of Botany, Prague, Czech Republic, unpubl. data); we are therefore listing them both from Eagle Hill. On the other hand, we are tentatively accepting the synonymy of *L. subrugosa* and *L. argentata* as suggested by Malíček (2014) despite the fact that gangaleoidin appears to be almost constant in European specimens, and North American specimens contain only roccellic acid (Brodo 1984, Malíček 2014). More work is clearly needed here as well.

Menegazzia subsimilis

Both *M. subsimilis* and *M. terebrata* (Hoffm.) A. Massal. are known from New England (Hinds and Hinds 2007) and Maritime Canada (unpublished Canadian checklist in CANL), but only the former has so far been discovered in the Eagle Hill area. Their distinctions are clearly described by Hinds and Hinds (2007) and Brodo et al. (2001).

Monodictys epilepraria

This species, a new report for North America, was previously known only from central Europe, Scotland, and Sweden (Kukwa and Diederich 2005). There are unpublished records in NY from Pennsylvania, Connecticut, North Carolina, and Michigan, and it is probably widespread at least in eastern North America (NYBG 2017). It produces brown muriform conidia over many species of *Lepraria*. (Maine, Washington County: Steuben, Wilderness Shores, Dyer Neck, R.C. Harris 54762, 9 July 2008 [NY]).

Muellerella polyspora

This species is new for North America and is among those in the genus with non-septate spores, similar to *M. hospitans* Stizenb. (Ihlen & Wedin 2008). (Maine, Washington County: Roque Island, 44°35'N, 67°32'W, open pasture with *Acer*, *Fagus*, and *Betula alleghaniensis*, parasitic on *Arthonia* cf. *radiata*, I.M. Brodo 32932, 2 June 2011 [CANL]).

Mycoblastus affinis* and *M. alpinus

These species are synonymized by some (e.g., Brodo 2016) and kept separate by others (e.g., Stenroos et al. 2016); so far, genetic results are inconclusive (Spribille et al. 2011). The soralia of *M. alpinus* are more yellowish and the asci are single-spored, compared to white soralia and 2-spored asci in *M. affinis* s. str. Both morphotypes have been reported in the Eagle Hill region, but the voucher in NY represents *M. alpinus* s. str.

Mycoblastus sanguinarioides

Recent genetic work on *M. sanguinarius* (L.) Norman by Spribille et al. (2011) has revealed that what was previously thought to be an easily identified pan-boreal lichen consists of at least 2 and probably more species. The species represented in the Eagle Hill area, *M. sanguinarioides*, is one of these and is more common in the north-east than *M. sanguinarius* s. str. It contains tiny crystals in the hymenium that are birefringent in polarized light, and it produces rangiformic acid, rarely accompanied by bourgeanic acid. *Mycoblastus sanguinarius* s. str. lacks hymenial crystals and rangiformic acid, producing instead bourgeanic acid in almost all specimens tested.

Myriolecis* cf. *schofieldii

This species is a fairly frequent lichen on maritime rocks from Washington to Alaska, but it is very rare on eastern shores. It was recorded from Fundy National Park in New Brunswick (Brodo 2010), but appears to be new for Maine and New England. The voucher is not entirely typical, and so its final confirmation should await additional collections. (Maine, Washington County: McClellan Park, 7 km S of Millbridge, 44°29'06"N, 67°51'09"W, rocky headlands and boulder beach at shore, I.M. Brodo 32787, 26 Aug. 2010 [CANL]).

Parmotrema stuppeum

This species is mainly Appalachian. This is the first published record for Maine (J.W. Hinds, School of Biology and Ecology, University of Maine, Orono, ME, pers. comm.). Although it has powdery marginal soredia and contains salazinic acid like the similar *P. reticulatum* (Taylor) M. Choisy, *P. stuppeum* lacks whitish reticulate maculae or cracks on the thallus surface. (Maine, Washington County: Roque Island, on yellow birch, R.C. Harris, 26 May 2011 [det. D.H.S. Richardson] (EgH)). Two more vouchers from Roque Island are in EgH, one collected by A. VanDerwerker on *Betula alleghaniensis* Britton (Yellow Birch) in 2011 and one collected by J.A. Moore on *Fagus* (beech) in 2016.

Pseudocyphellaria* aff. *perpetua

This species was previously included within *P. crocata*, but genetic studies by Moncada et al. (2014) revealed several distinct lineages at the species level; one corresponds to a recently described western population of *P. perpetua* McCune & Miądl. (Miądlakowska et al. 2002), which is conspecific with the older *P. hawaiiensis* H. Magn. (Moncada et al. 2014). The eastern population, which is a close phenotypic match for *P. perpetua*, is still unnamed and is referred to here as *P. aff. perpetua*, following Moncada et al. (2014). All Eagle Hill specimens named as *P. crocata* have turned out to be this taxon.

Taeniolella cladinicola

This species, new to North America, was described and beautifully illustrated by Alstrup (1993) from a Danish specimen on *Cladonia arbuscula* (Wallr.) Flotow. The Eagle Hill specimen was growing on *C. uncialis*. (Maine, Washington County: Petit Manan Point, John Hollingsworth Trail, rock outcrops and mixed forest, 44°26'01"N, 67°53'21"W, 5 Sept. 2001 [DLH]).

***Tremella coppinsii*.**

There are several records of this lichenicolous basidiomycete from Maine, as well as Matane, QC, Canada, in the NYBG (2017) database collected by William Buck or Richard Harris on *Platismatia glauca*. These are the first published records for North America. It is not uncommon in northern Europe and the UK (GBIF 2017). (Maine, Washington County: Steuben, Eagle Hill Institute, R.C. Harris 57479, 27 June 2012 [NY]; Cutler, Cutler Public Reserve Land, W.R. Buck 53850A, 4 July 2008 [NY]. Canada, Quebec: M.R.C. de Matane, Réserve faunique de Matane, R.C. Harris 58690, 3 July 2013 [NY]).

Summary

In all, 600 lichens and 82 lichenicolous and allied fungi have been recorded from Eagle Hill Institute and its vicinity. Of the 682 taxa listed, 331 have been recorded within the Institute's boundary and 655 from its vicinity (27 taxa have only been recorded from within the Institute's property, 351 taxa from only the vicinity, and 304 from both study areas); a further 66 taxa (53 lichens and 13 lichenicolous and allied fungi) compiled from unverified class lists have been recorded from one or both of the study areas but lack voucher material. Seven taxa (1 lichen and 6 lichenicolous fungi) are additional to the North American checklist (cf. Esslinger 2017); notes on these and some other interesting taxa are provided. The central part of coastal Maine, which includes the Eagle Hill Institute, is clearly a hot-spot for lichen diversity as revealed by the 25 years of annual seminars offered by the Institute and their resulting collections. Impressive as the list above is in demonstrating this diversity, it will undoubtedly grow as more courses focusing on different aspects of lichenology are held in the coming years.

Acknowledgments

We are extremely grateful to F. Anderson, W.R. Buck, S. Clayden, P. Clerc, A.M. Fryday, J. Hinds, J.C. Lendemer, J. Malíček, F.C. Olday, S. Selva, D. Waters and V. Zoll for additional records or comments on the list, or for verifying vouchers. Without their help, it would not have been possible to assemble this checklist. We are also grateful to James Hinds and an anonymous reviewer for their very helpful comments on the manuscript; Norman Famous, Wetlands and Wildlife Ecologist from Augusta, who has facilitated and often accompanied lichen groups visiting Roque Island; and Greg Baker of the Maritime Provinces Spatial Analysis Research Centre, Saint Mary's University for preparing Figure 1. Last, but not least, we owe a great debt of gratitude to Joerg-Henner Lotze, Director of the Eagle Hill Institute, for his financial support and ongoing encouragement of lichen studies at Eagle Hill.

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