

## Lichens of Eastern North America Exsiccati. Fascicle II, nos. 51-100

JAMES C. LENDEMER<sup>1</sup>

ABSTRACT. – In conjunction with the author's work on the lichen flora of eastern North America the author began the distribution of this exsiccata (*Lichens of Eastern North America Exsiccata*) from the Academy of Natural Sciences of Philadelphia (PH). This, the second fascicle in the series, comprises nos. 51 to 100 and is distributed in 20 sets on exchange to the following herbaria: ASU, B, BG, CANB, CBM, CHR, DOV, FH, GZU, H, HMAS, M, MIN, NDA, S, TSB, TNS, TU, UPS, herb. Lendemer. A new combination, *Biatorea longispora* (Degelius) Lendemer & Printzen, is proposed and, *Usnea pensylvanica* Motyka is removed from synonymy with *U. rubicunda* Stirton.

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### INTRODUCTION

This, the second fascicle of the *Lichens of Eastern North America Exsiccata* was originally intended to focus on the crustose lichens of southern New Jersey; however, many non-crustose taxa from elsewhere are also included because of opportunities to collect them in the quantity needed. Several species that were included in fascicle I (Lendemer, 2002) are included here again; however, for the most part, the taxa are different. Arrangement and distribution of this fascicle follows that of the first fascicle (Lendemer, 2002). When more than 20 duplicates were produced the first two have been retained in hb. Lendemer to form incomplete sets that are available upon request and any further duplicates have been sent to the Lichen Exchange of American Bryological and Lichenological Society currently maintained at ASU.

It is of particular importance to note that the author citations of taxa presented here do not always follow standard lists such as Esslinger (1997). Differences between those given here and such "standard" lists often reflect the personal preferences of the preparator, however, in several cases, bibliographic research has revealed that the authorities should be changed. As in Harris (1990) and Lendemer and Hewitt (2002), these changes usually only affect the addition of an "ex" or an "in" which though not required by the *International Code for Botanical Nomenclature* (Greuter et al., 2000) does provide helpful information and clarity. It should also be noted that the taxonomy presented here does not always follow previously accepted treatments and instead reflects the views of the preparator as well as those of the specialists consulted. In particular, differences in the taxonomy of the *Usnea* species included here are the result of my research in the genus.

### FASCICLE II

#### 51. *Endocarpon pallidulum* (Nylander) Nylander

Dup. Determined (W!) – O. Breuss – October 25, 2003

**UNITED STATES OF AMERICA. NEW JERSEY. ATLANTIC COUNTY.:** On the shaded portions of discarded concrete, on the margins of an abandoned blueberry (*Vaccinium*) farm and a mixed hardwood forest, 1/3 mile south of NJ Route #561, northeast of Germania, southeast of Egg Harbor City, Nature Conservancy Reserve. – elev. ca. 60 ft. – UTM 18 535529E 4372107N - Lat. 39° 29' 59"N, Long. 74° 35' 12"W – *Assoc. spp.*: *Acarospora* sp., *Sarcogyne regularis*, *Caloplaca* sp.

Thallus saxicolous, squamulose, esorediate; squamules small, brown, overlapping; medulla white; periphyses not distinctly branched, segmented, not swollen apically; asci 44µm x 24µm; spores 2-per ascus, brown, muriform, obtuse ellipsoid, 30µm x 14µm.

James C. Lendemer *et al.* #1075  
w/ James A. Macklin, Alfred E. Schuyler *et al.*

July 20, 2003

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**52. *Cladonia subtenuis* (Abbeyes) A. Evans**

Det. J.C. Lendemer – December 7, 2002

Dup. Confirmed (H!) – T. Ahti – March 10, 2003

**UNITED STATES OF AMERICA. NEW JERSEY. CUMBERLAND COUNTY.:** Growing on organic matter (needles of pitch pine (*Pinus rigida*)), in an open forest of *Pinus* spp. (mainly *P. rigida*) and oak (*Quercus* spp.), on bluffs along the west bank of the Manumuskin River, Nature Conservancy Protection Area, 1.5 miles northeast of Port Elizabeth, west of Manumuskin, southeast of Millville. – elev. <20 ft. - UTM 18 502224E 4353540N – Lat. 39° 20' 00"N, Lat. 74° 58' 27"W – *Assoc. spp.* – *Cladonia grayi*, *Cladonia caespitica*, *Cladonia atlantica*.

Thallus growing over organic matter, in large bushy tufts, white/blue-gray.

James C. Lendemer #535 & Leonard H. Smith II

December 2, 2002

**53. *Pyrrhospora varians* (Acharius) R.C. Harris**

Dup. Determined (NY!) – R.C. Harris – December 12, 2002

**UNITED STATES OF AMERICA. NEW JERSEY. CUMBERLAND COUNTY.:** On small twigs of sheltered shrubs on the east edge of a borrow pit (sand mine), in a small exposed thicket of pitch pine (*Pinus rigida*), oak (*Quercus* spp.), and small shrubs, at the terminus of a small gravel road on the outer edge of the middle portion of Bear Swamp, north of Turkey Point Corner, east of Frames Corner, south of Paynters Crossing. – elev. <20 ft. – ca. UTM 18 488706E 4350217N – Lat. 39° 18' 11"N, Long. 75° 07' 52"W – *Assoc. spp.* – *Cladonia subtenuis*, *Cladonia atlantica*, *C. cristatella*, *C. grayi*, *Dibaeis baeomyces*, *Usnea strigosa* ssp. *major*, *Tuckermannopsis fendleri*.

Thallus crustose, granular, green, corticolous; apothecia small, clustered, reddish brown to black; spores ca. 8-per ascus. Though Hafellner (1993) excluded this species from his concept *Pyrrhospora*, he did not assign it elsewhere and, it is retained there by Esslinger (1997).

James C. Lendemer #528 & Gerry Moore

November 16, 2002

**54. *Flavoparmelia baltimorensis* (Gyelnik & Förriss) Hale**

Det. J.C. Lendemer – December 27, 2002

**UNITED STATES OF AMERICA. NORTH CAROLINA. MACON COUNTY.:** Loosely adnate on a large, shaded, granite boulder, in a mid-elevation *Rhododendron* thicket surrounded by a mixed-oak forest (*Quercus* spp.), along Bartram Trail (yellow section), ca. 1 mile from entrance along NC Route 106, Scaly Mountain, Nantahala National Forest. – elev. ca. 4200 ft. – ca. UTM 17 292541E 3878950N – Lat. 35° 02' 01"N, Long. 83° 16' 27"W – *Assoc. spp.*: *Usnea halei*.

Thallus foliose, yellow-green, loosely attached to substrate, saxicolous; underside black, margins dark to light brown; upperside with many prominent pustulose growths arising from cortex; apothecia present on some specimens (i.e., HB. LENDEMER); apothecial disks brownish-red to brownish-black.

James C. Lendemer #556 & Leonard H. Smith II

December 22, 2002

**55. *Pseudevernia consocians* (Vainio) Hale & Culberson**

Det. J.C. Lendemer – December 27, 2002

**UNITED STATES OF AMERICA. NORTH CAROLINA. MACON COUNTY.:** On the branches and trunks of old (ca. 400 years), dwarf pitch pines (*Pinus rigida*), on a granite dome, exposed to the wind, north of Sunset Rocks, several hundred yards south of Sunset Park Rd., ca. ½ mile south of NC Route 106, Highlands. – elev. 4020 ft. - UTM 17 300527E 3880337N – Lat. 35° 02' 52"N, Long. 83° 11' 13"W – *Assoc. spp.*: *Platismatia tuckermanii*, *Usnea merrillii*.

Thallus bluish-gray, isidiate; underside white to blackish-blue; an apotheciate thallus (*Lendemer 559* (HB. LENDEMER)) was also found at this locality.

James C. Lendemer #557 & Leonard H. Smith II

December 24, 2002

**56. *Cladonia caroliniana* Schweinitz ex Tuckerman s. str.**

Det. J.C. Lendemer – December 27, 2002  
Dup. Confirmed (H!) – T. Ahti – March 10, 2003

**UNITED STATES OF AMERICA. NORTH CAROLINA. MACON COUNTY.:** Growing with bryophytes and *Cladonia* spp. in crevices and pockets of granite, filled with wet soil on a granite dome exposed to the wind, north of Sunset Rocks, several hundred yards south of Sunset Park Rd., ca. ½ mile south of NC Route 106, Highlands. – elev. 4020 ft. - UTM 17 300527E 3880337N – Lat. 35° 02' 52"N, Long. 83° 11' 13"W – *Assoc. ssp.*: *Cladonia* spp.

Thallus yellow-green; podetia short, not distinctly lacerated or torn, inflated, with spiny tips; cortex UV-; medulla UV+ blue-white.

James C. Lendemer #558 & Leonard H. Smith II

December 25, 2002

**57. *Usnea merrillii* Motyka**

Det. J.C. Lendemer – December 28, 2002

Dup. Confirmed (UC!) – I.I. Tavares – January 9, 2003

**UNITED STATES OF AMERICA. NORTH CAROLINA. MACON COUNTY.:** On the bark and branches of old (ca. 400 years), exposed, dwarf pitch pines (*Pinus rigida*), on the summit of a west facing granite dome, northwest of Sunset Rocks, several hundred yards south of Sunset Park Rd., ca. ½ mile south of NC Route 106, Highlands. – elev. 4020 ft. - UTM 17 300527E 3880337N – Lat. 35° 02' 52"N, Long. 83° 11' 13"W – *Assoc. ssp.*: *Platismatia tuckermanii*, *Pseudevernia consocians*, *Parmelinopsis horrescens*, *Parmelinopsis spumosa*.

Thallus corticolous, pendent, green to yellow-green, lax; base not distinctly blackened; branches slender, lax, curling at tips, segmented; medulla white, as wide as the axis, KOH+ yellow to red (quickly); axis opaque. This collection is annulate as in the type collection however in the type collection the segments are more inflated and the verrucae more regular and visible (Tavares, pers. comm.).

James C. Lendemer #568 & Leonard H. Smith II

December 25, 2002

**58. *Peltigera neopolydactyla* (Gyelnik) Gyelnik**

Dup. Determined (H!) – Orvo Vitikainen – March 10, 2003

**UNITED STATES OF AMERICA. NORTH CAROLINA. MACON COUNTY.:** Growing with moss over sandy soil and rocks, on a roadbank along Sunset Park Rd., ca. ½ mile from NC Route 106, Highlands. – elev. 4000 ft. - UTM 17 300694E 3880581N – Lat. 35° 03' 00"N, Long. 83° 11' 07"W.

Thallus growing over bryophytes and wet rocks, esorediate, apotheciate; apothecia saddle shaped, brown to brown-red; cortex gray, UV+ dull yellow/green; underside with distinct venation, tomentose; veins slightly raised, dark gray to black, otherwise underside pale brown to white; rhizines black to gray, along veins.

James C. Lendemer #569 & Leonard H. Smith II

December 24, 2002

**59. *Cladonia rangiferina* (L.) F. H. Wigg.**

Det. J.C. Lendemer – December 28, 2002

Dup. Confirmed (H!) – T. Ahti – March 10, 2003

**UNITED STATES OF AMERICA. NORTH CAROLINA. MACON COUNTY.:** On organic debris over granite, around the bases of old (ca. 400 years), dwarf pitch pines (*Pinus rigida*), on the summit of a west facing granite dome, northwest of Sunset Rocks, several hundred yards south of Sunset Park Rd., ca. ½ mile south of NC Route 106, Highlands. – elev. 4020 ft. - UTM 17 300527E 3880337N – Lat. 35° 02' 52"N, Long. 83° 11' 13"W – *Assoc. ssp.*: *Cladonia arbuscula*, *Cladonia squamosa*, *Cladonia* spp.

Thallus white, forming large mats and bushy cushions, UV-.

James C. Lendemer #571 & Leonard H. Smith II

December 24, 2002

**60. *Cladonia squamosa* Hoffmann**

Det. J.C. Lendemer – December 28, 2002

Dup. Confirmed (H!) – T. Ahti – March 10, 2003

**UNITED STATES OF AMERICA. NORTH CAROLINA. MACON COUNTY.:** Growing over organic debris overlaying a small (north facing) granite hillside along Sunset Park Rd., ca. ½ mile from NC Route 106, Highlands. – elev. 4000 ft. - UTM 17 300694E 3880581N – Lat. 35° 03' 00"N, Long. 83° 11' 07"W.

Thallus UV+ blue-white, squamulose; “primary” squamules abundant to sparse; podetia thin and fragile (unlike *Lendemer et al.* 412 = *Lich. East. N. Amer. Exs. I: 10*).

James C. Lendemer #572 & Leonard H. Smith II

December 24, 2002

**61. *Cladonia arbuscula* (Wallroth) Flotow**

Det. J.C. Lendemer – December 28, 2002

Dup. Confirmed (H!) – T. Ahti – March 10, 2003

**UNITED STATES OF AMERICA. NORTH CAROLINA. MACON COUNTY.:** On organic debris over granite, around the bases of old (ca. 400 years), dwarf pitch pines (*Pinus rigida*), on the summit of a west facing granite dome, northwest of Sunset Rocks, several hundred yards south of Sunset Park Rd., ca. ½ mile south of NC Route 106, Highlands. – elev. 4020 ft. - UTM 17 300527E 3880337N – Lat. 35° 02' 52"N, Long. 83° 11' 13"W – *Assoc. spp.*: *Cladonia rangiferina*, *Cladonia squamosa*, *Cladonia spp.*

Thallus forming bushy, sprawling mats, dull yellow when dry, greenish-blue when wet; UV-.

James C. Lendemer #573 & Leonard H. Smith II

December 24, 2002

**62. *Cetraria arenaria* Kärnefelt**

Det. J.C. Lendemer – January 13, 2003

Dup. Confirmed (HB. LENDEMER!) – I. Kärnefelt – January 14, 2003

**UNITED STATES OF AMERICA. NORTH CAROLINA. JACKSON COUNTY.:** Forming dense mats with bryophytes growing on compact soil and roots overlaying granite on the border of an exposed granitic domes along the northern summit of Whiteside Mountain, in a temperate forest of hemlock (*Tsuga canadensis*), *Rhododendron*, *Azalea*, maple (*Acer* sp.), witch-hazel (*Hamamelis* sp.), chestnut (*Castanea* sp.), and *Sassafras*, along Loop Trail, Whiteside Mountain, Nantahala National Forest, northeast of Highlands. elev. ca. 4460 ft. - UTM 17 304753E 3883750N – Lat. 35° 04' 46"N, Long. 83° 08' 29"W - *Assoc. spp.*: *Cladonia uncialis*, *Cladonia spp.*

James C. Lendemer #599 & Leonard H. Smith II

December 23, 2002

**63. *Placynthiella uliginosa* (Schrader) Coppins & P. James**

Det. J.C. Lendemer – February 1, 2003

Dup. Confirmed (NY!) – R.C. Harris – March 3, 2003

**UNITED STATES OF AMERICA. NEW JERSEY. CUMBERLAND COUNTY.:** On disturbed soil with immature mosses and dead vascular plant rosettes, on an exposed bluff overlooking the marshy flats of the Maurice River, west shore of the Morris River, Nature Conservancy Management Area, ca. 1 mile north of Laurel Lake, east of NJ Route 555, southwest of Millville, Dividing Creek Quad. – UTM 18 497190E 4356080N – Lat. 39° 21' 22"N, Long. 75° 01' 57"W – *Assoc. spp.*, *Placynthiella oligotropha* (mixture with).

Thallus terricolous, granular, inconspicuous; apothecia black, biatorine; spores 8-per ascus, colorless, globose to slightly ellipsoid. Most specimens of this collection are a mixture with *P. oligotropha* which has larger, paler, olive areoles.

James C. Lendemer *et al.* #643  
w/ James A. Macklin & Gerry Moore

January 24, 2003

**64. *Xanthoria fulva* (Hoffmann) Poelt & Petutschnig**

Det. J.C. Lendemer – January 19, 2003

Dup. Confirmed (BG!) – L. Lindblom – April 14, 2003

**UNITED STATES OF AMERICA. NEW JERSEY. CUMBERLAND COUNTY.:** On the bark of several dead silver maples (*Acer saccharinum*), forming part of an old homestead surrounded by extensive salt

grass flats and marshes, along the east shore of the Maurice River, at the terminus of the paved portion of Thompsons Beach Road, Maurice River Township. - ca. UTM 18 497815E 4342364N - Lat. 39° 13'N, Long. 75° 01'W - Assoc. spp.: *Lecanora* sp., *Pertusaria* sp., *Punctelia rudecta*, *Rinodina maculans*.

Thallus, foliose, orange, sorediate; lobes small, sorediate on the underside of lobe tips; underside white, lacking rhizines.

James C. Lendemer #613 & Gerry Moore

January 18, 2003

**65. *Physcia millegrana* Degelius**

Det. J.C. Lendemer – January 19, 2003

Dup. Confirmed (NDA!) – T.L. Esslinger – February 15, 2003

**UNITED STATES OF AMERICA. NEW JERSEY. CUMBERLAND COUNTY.:** On the bark of several dead silver maples (*Acer saccharinum*), forming part of an old homestead surrounded by extensive salt grass flats and marshes, along the east shore of the Maurice River, at the terminus of the paved portion of Thompsons Beach Road, Maurice River Township. - ca. UTM 18 497815E 4342364N - Lat. 39° 13'N, Long. 75° 01'W - Assoc. spp.: *Candelariella efflorescens*, *Usnea strigosa* ssp. *major* (small, tufted, immature thalli), *Flavoparmelia caperata*.

Thallus foliose, sorediate, apotheciate, gray; lobes small, densely sorediate; apothecia abundant; apothecial disks black-purple, epruinose to pruinose.

James C. Lendemer #614 & Gerry Moore

January 18, 2003

**66. *Lecanora minutella* Nylander**

Det. J.C. Lendemer – January 20, 2003

**UNITED STATES OF AMERICA. NEW JERSEY. CUMBERLAND COUNTY.:** On the exposed edges of the scales of old pitch pine (*Pinus rigida*) cones, in a swampy forest (with *Pinus rigida*, *Liquidambar*, *Populus*, etc.), adjacent to tidal marshes, along the west shore of the Maurice River, at the terminus of Strawberry Lane, Port Norris, Commercial Township. - UTM 18 496580E 4343319N - Lat. 39° 14' 28"N, Long. 75° 02' 23"W - Assoc. spp.: *Lecanora* spp.

Thallus crustose, thin and indistinct; apothecia red-brown to black, small, epruinose; spores simple, ca. 8 per. ascus.

James C. Lendemer #615 & Gerry Moore

January 18, 2003

**67. *Amandinea polyspora* (Willey) E. Lay & P. May**

Det. J.C. Lendemer – January 20, 2003

Dup. Confirmed (SASK!) – J.W. Sheard – February 5, 2003

**UNITED STATES OF AMERICA. NEW JERSEY. CUMBERLAND COUNTY.:** On the bark of dead, rotting trees, in a swampy forest (with *Pinus rigida*, *Liquidambar*, *Populus*, etc.), adjacent to tidal marshes, along the west shore of the Maurice River, at the terminus of Strawberry Lane, Port Norris, Commercial Township. - UTM 18 496580E 4343319N - Lat. 39° 14' 28"N, Long. 75° 02' 23"W - Assoc. spp.: *Pertusaria xanthodes*, *Pyrrhospora varians*.

Thallus crustose, gray; apothecia black; spores 2-celled, transversely septate, slightly constricted at septum, brown, >8 per ascus.

James C. Lendemer #616 & Gerry Moore

January 18, 2003

**68. *Hypocenomyce friesii* (Acharius) P. James & Gotth. Schneider**

Dup. Determined (NY!) – R.C. Harris – March 10, 2003

**UNITED STATES OF AMERICA. NEW JERSEY. BURLINGTON COUNTY.:** On the trunks of dead Atlantic White Cedar (*Chamaecyparis thyoides*), in a cedar swamp along the east shore of the Batsto River, ca. ½ mile north of Quaker Bridge, east of Atsion, Batsto Natural Area, Wharton State Forest. – elev. <10 ft. - UTM 18 528571E 4395347N – Lat. 39° 42' 34"N, Long. 74° 40' 00"W – Assoc. spp.: *Cladonia macilenta*, *Cladonia* sp.

Thallus squamulose, corticolous; squamules brown, esorediate; apothecia black.

James C. Lendemer #647 & Erin Tripp

February 9, 2003

69. *Hypocenomyce anthracophila* (Nylander) P. James & Gotth. Schneider  
Dup. Determined (NY!) – R.C. Harris – March 10, 2003

**UNITED STATES OF AMERICA. NEW JERSEY. BURLINGTON COUNTY.:** On the trunks of dead Atlantic White Cedar (*Chamaecyparis thyoides*), in a cedar swamp along the east shore of the Batsto River, ca. ½ mile north of Quaker Bridge, east of Atsion, Batsto Natural Area, Wharton State Forest. – elev. <10 ft. - UTM 18 528571E 4395347N – Lat. 39° 42' 34"N, Long. 74° 40' 00"W – *Assoc. spp.:* *Cladonia macilenta*, *Cladonia sp.*

Thallus squamulose, corticolous; squamules brown, sorediate; apothecia rare, brown.

James C. Lendemer #648 & Erin Tripp

February 9, 2003

70. *Loxospora pustulata* (Brodo & Culberson) R.C. Harris  
Dup. Determined (NY!) - R.C. Harris – March 10, 2003

**UNITED STATES OF AMERICA. NEW JERSEY. BURLINGTON COUNTY.:** On the bark of a large oak (*Quercus*) on the edge of a cedar swamp along the east shore of the Batsto River, ca. ½ mile north of Quaker Bridge, east of Atsion, Batsto Natural Area, Wharton State Forest. – elev. <10 ft. - UTM 18 528571E 4395347N – Lat. 39° 42' 34"N, Long. 74° 40' 00"W – *Assoc. spp.:* *Pertusaria paratuberculifera*, *Parmelia squarrosa*, *Punctelia rudecta*, *Flavoparmelia caperata*, *Lecanora hybocarpa*.

Thallus crustose, corticolous, with conspicuous white prothallus, schizidiolate/pustulose.

James C. Lendemer #658 & Erin Tripp

February 9, 2003

71. *Parmotrema rigidum* (Lynge) Hale  
Det. J.C. Lendemer – March 22, 2003

**UNITED STATES OF AMERICA. NORTH CAROLINA. CARTERET COUNTY.:** On the branches of the crowns of trees, along a path leading to the foot-tunnel under NC Route 58, Trinity Center, Bogue Banks, ca. 7 miles south of Atlantic Beach. – elev. <5 ft. - UTM 18 326044E 3839952N – Lat. 34° 41' 19"N, Long. 76° 53' 56"W – *Assoc. spp.:* *Usnea strigosa aggregate*, *Ramalina willeyi*.

Thallus foliose, corticolous, apotheciate, esorediate; apothecia often perforate, large, raised; lobes broad, ascending; marginal cilia sparse to abundant; lower surface black near center with a wide white margin; medulla UV+ blue-white.

James C. Lendemer *et al.* #667  
w/ participants of Tuckerman Workshop #12

March 19, 2003

72. *Parmotrema tinctorum* (Despréaux *ex* Nylander) Hale  
Det. J.C. Lendemer – March 22, 2003

**UNITED STATES OF AMERICA. NORTH CAROLINA. CARTERET COUNTY.:** On *Juniperus silicicola* exposed to ocean winds, on the edge of a large maritime forest, dominated by *Quercus virginianus* and *Juniperus silicicola*, Shackleford Island, Cape Lookout National Seashore. – elev. <10ft. - UTM 18 349808E 3838961N – Lat. 34° 41' 01"N, Long. 76° 38' 22"W – *Assoc. spp.:* *Dirinaria confusa*, *Physcia americana*, *Leptogium cyanescens*, *Pertusaria sp.*, *Pertusaria paratuberculifera*.

Thallus foliose, corticolous, pale gray-white; lobes large, broad; marginal cilia lacking; isidia abundant in center of thallus; underside black with a marginal brown zone; cortex UV-; medulla C+ red.

James C. Lendemer *et al.* #673  
w/ participants of Tuckerman Workshop #12

March 19, 2003

73. *Ramalina willeyi* R. Howe  
Det. J.C. Lendemer & S. LaGreca – March 19, 2003

**UNITED STATES OF AMERICA. NORTH CAROLINA. CARTERET COUNTY.:** On the branches of the crowns of trees, along a path leading to the foot-tunnel under NC Route 58, Trinity Center, Bogue Banks, ca. 7 miles south of Atlantic Beach. – elev. <5 ft. - UTM 18 326044E 3839952N – Lat. 34° 41' 19"N, Long. 76° 53' 56"W – *Assoc. spp.: Usnea strigosa-aggregate, Parmotrema rigidum.*  
Thallus fruticose, corticolous, apotheciate; spores straight, ellipsoid.

James C. Lendemer *et al.* #668  
w/ participants of Tuckerman Workshop #12

March 19, 2003

74. *Ramalina stenospora* Müll. Arg.  
Det. J.C. Lendemer & S. LaGreca – March 20, 2003

**UNITED STATES OF AMERICA. NORTH CAROLINA. CARTERET COUNTY.:** On the bases of red maple (*Acer rubrum*), in a freshwater swamp, bordering the North Carolina Aquarium parking lot and access road, Theodore Roosevelt Natural Area, just north of North Carolina Aquarium, Bogue Banks. – elev. <10 ft. - UTM 18 332449E 3841008N – Lat. 34° 41' 57"N, Long. 76° 49' 45"W – *Assoc. spp.: Lobaria ravenelii, Bactrospora lamprospora, Bacidia schweinitzii, Collema pulcellum, Graphis spp., Thelotrema sp., Ramalina willeyi, Usnea pensylvanica, Leptogium cyanescens, Brigantiaea leucoxantha.*  
Thallus fruticose, corticolous, shrubby to subpendent, apothecia abundant; spores long.

James C. Lendemer *et al.* #670  
w/ participants of Tuckerman Workshop #12

March 20, 2003

75. *Cladonia dimorphoclada* Robbins  
Det. J.C. Lendemer – March 18, 2003  
Dup. Confirmed (H!) – T. Ahti – February 3, 2004

**UNITED STATES OF AMERICA. NORTH CAROLINA. PENDER COUNTY.:** On sand along a disturbed sand road, on the edge of a *Pinus palustris-Quercus laevis* dominated sand scrub community with a *Vaccinium* understory, 5.3 miles south of NC Route 53, just east of Shaw Highway (NC SR 1523) at Lodge Road, Holly Shelter Game Land. – UTM 18 242192E 3826335N – Lat. 34° 32' 54"N, Long. 77° 48' 34"W – *Assoc. spp.: Trapeliopsis flexuosa, Cladonia pachycladodes, Cladonia leporina.*  
Thallus terricolous, prostrate and “creeping” across ground, forming small flat cushions, esorediate.

James C. Lendemer *et al.* #669  
w/ participants of Tuckerman Workshop #12

March 18, 2003

76. *Cladonia pachycladodes* Vainio  
Det. J.C. Lendemer – March 18, 2003  
Dup. Confirmed (H!) – T. Ahti – February 3, 2004

**UNITED STATES OF AMERICA. NORTH CAROLINA. PENDER COUNTY.:** On sand, in sandy barrens, in a *Pinus palustris-Quercus laevis* dominated sand scrub community with a *Vaccinium* understory, 5.3 miles south of NC Route 53, just east of Shaw Highway (NC SR 1523) at Lodge Road, Holly Shelter Game Land. – UTM 18 242782E 3826763N – Lat. 34° 33' 08"N, Long. 77° 48' 11"W – *Assoc. spp.: Trapeliopsis flexuosa, Cladonia rappii, Cladonia subtenuis, Cladonia subsetacea, Cladonia leporina.*  
Thallus terricolous, prostrate, forming cushions, white to blue-gray, esorediate.

James C. Lendemer *et al.* #672  
w/ participants of Tuckerman Workshop #12

March 18, 2003

77. *Cladonia rappii* A. Evans  
Det. J.C. Lendemer – March 18, 2003  
Dup. Confirmed (H!) – T. Ahti – February 3, 2004

**UNITED STATES OF AMERICA. NORTH CAROLINA. PENDER COUNTY.:** On sand, in sandy barrens, in a *Pinus palustris-Quercus laevis* dominated sand scrub community with a *Vaccinium* understory, 5.3 miles south of NC Route 53, just east of Shaw Highway (NC SR 1523) at Lodge Road, Holly

Shelter Game Land. – UTM 18 242782E 3826763N – Lat. 34° 33' 08"N, Long. 77° 48' 11"W – *Assoc. spp.*: *Trapeliopsis flexuosa*, *Cladonia pachycladodes*, *Cladonia subtenuis*, *Cladonia subsetacea*, *Cladonia leporina*.

Thallus terricolous, fruticose, "primary" squamules sparse/absent, podetia forming tall, stacked cups, esorediate.

James C. Lendemer *et al.* #671  
w/ participants of Tuckerman Workshop #12

March 18, 2003

**78. *Usnea mutabilis* Stirton**

Det. J.C. Lendemer – March 22, 2003

Dup. Confirmed (UC!) – I.I. Tavares – April 18, 2003

**UNITED STATES OF AMERICA. NORTH CAROLINA. CARTERET COUNTY.:** On a fallen tree on the edge of an extensive saltwater marsh, Theodore Roosevelt Natural Area, just north of North Carolina Aquarium, Bogue Banks. – elev. <5 ft. - UTM 18 332175E 3840998N – Lat. 34° 41' 56"N, Long. 76° 49' 56"W – *Assoc. spp.*: *Leptogium cyanescens*, *Bacidia heterochroa*, *Usnea evansii*, *Usnea strigosa*-aggregate, *Ramalina willeyi*, *Ramalina stenospora*, *Parmotrema rigidum*.

Thallus corticolous, shrubby to subpendent, soraliolate; branches tapering and becoming thin and slender towards tips; soralia small, abundant on branches and fibrils, often with isidiomorphs; medulla red or red with a layer of white medullary tissue beneath (this often occurs in *U. strigosa*-aggregate as well); base not distinctly blackened. This species is rather common throughout eastern North America, however, a wide variety of material is often misidentified as *U. mutabilis* and *U. mutabilis* is often misidentified as a variety of other entities. The species is characterized by the presence of soralia coupled with a red pigmented medulla.

James C. Lendemer *et al.* #674  
w/ participants of Tuckerman Workshop #12

March 20, 2003

**79. *Ochrolechia africana* Vainio**

Det. J.C. Lendemer – March 22, 2003

**UNITED STATES OF AMERICA. NORTH CAROLINA. PENDER COUNTY.:** On a large *Vaccinium*, in a *Pinus palustris-Quercus laevis* dominated sand scrub community with a *Vaccinium* understory, 5.3 miles south of NC Route 53, just east of Shaw Highway (NC SR 1523) at Lodge Road, Holly Shelter Game Land. – UTM 18 242782E 3826763N – Lat. 34° 33' 08"N, Long. 77° 48' 11"W – *Assoc. spp.*: *Graphis* spp., *Haematomma* sp., *Loxospora pustulata*.

Thallus crustose, corticolous, thin to thick, gray-white; cortex UV+ yellow; apothecia small to large, with a white pruina, disks pink.

James C. Lendemer *et al.* #675  
w/ participants of Tuckerman Workshop #12

March 18, 2003

**80. *Parmeliopsis subambigua* Gyelnik**

Det. J.C. Lendemer – March 22, 2003

**UNITED STATES OF AMERICA. NORTH CAROLINA. PENDER COUNTY.:** On the bark of *Pinus palustris*, in a *Pinus palustris-Quercus laevis* dominated sand scrub community with a *Vaccinium* understory, 5.3 miles south of NC Route 53, just east of Shaw Highway (NC SR 1523) at Lodge Road, Holly Shelter Game Land. – UTM 18 242782E 3826763N – Lat. 34° 33' 08"N, Long. 77° 48' 11"W.

Thallus foliose, closely attached to substrate, corticolous, green; lobes small and occasionally nearly imperceptible; soralia arising from pustules on the lobe surface.

James C. Lendemer *et al.* #680  
w/ participants of Tuckerman Workshop #12

March 18, 2003

**81. *Cladonia leporina* Fries**

Det. J.C. Lendemer – March 18, 2003

Dup. Confirmed (H!) – T. Ahti – February 3, 2004



**UNITED STATES OF AMERICA. NORTH CAROLINA. PENDER COUNTY.:** On sand, in sandy barrens, in a *Pinus palustris-Quercus laevis* dominated sand scrub community with a *Vaccinium* understory, 5.3 miles south of NC Route 53, just east of Shaw Highway (NC SR 1523) at Lodge Road, Holly Shelter Game Land. – UTM 18 242782E 3826763N – Lat. 34° 33' 08"N, Long. 77° 48' 11"W – *Assoc. spp.:* *Trapeliopsis flexuosa*, *Cladonia rappii*, *Cladonia subtenuis*, *Cladonia subsetacea*, *Cladonia pachycladodes*.  
Thallus terricolous, yellow-green; podetia thick; apothecia abundant, red.

James C. Lendemer *et al.* #681  
w/ participants of Tuckerman Workshop #12

March 18, 2003

82. *Coccocarpia palmicola* (Sprengel) Arvidsson & D.J. Galloway  
Det. J.C. Lendemer – March 24, 2003

**UNITED STATES OF AMERICA. NORTH CAROLINA. PENDER COUNTY.:** On the moist, shaded portions of a rotting oak trunk, in a *Pinus palustris-Quercus laevis* dominated sand scrub community with a *Vaccinium* understory, 5.3 miles south of NC Route 53, just east of Shaw Highway (NC SR 1523) at Lodge Road, Holly Shelter Game Land. – UTM 18 242782E 3826763N – Lat. 34° 33' 08"N, Long. 77° 48' 11"W – *Assoc. spp.:* *Cladonia leporina*, *Trapeliopsis flexuosa*.  
Thallus corticolous, foliose, gray, isidiate; isidia abundant in center of thallus.

James C. Lendemer *et al.* #686  
w/ participants of Tuckerman Workshop #12

March 18, 2003

83. *Sticta carolinensis* McDonald  
Det. J.C. Lendemer – March 25, 2003  
Dup. Confirmed (HB. LENDEMER!) – R.C. Harris – April 24, 2003

**UNITED STATES OF AMERICA. NORTH CAROLINA. JONES COUNTY.:** On *Fagus*, in a *Fagus-Carpinus-Taxodium* forest with marl outcrops along Island Creek, north of NC Bike 3, Island Creek Walk, Croatan National Forest. – ca. 25 ft. - UTM 18 305103E 3877968N – Lat. 35° 01' 39"N, Long. 77° 08' 11"W – *Assoc. spp.:* *Leptogium cyanescens*.  
Thallus foliose, dark brown, lobulate; underside white to light brown, cyphellae small, conspicuous, white; medulla white; lobules small, on lobe margins.

James C. Lendemer *et al.* #695  
w/ participants of Tuckerman Workshop #12

March 17, 2003

84. *Usnea strigosa* (Acharius) Eaton ssp. *major* (Michaux) I.I. Tavares  
Det. I.I. Tavares – March 23, 2003

**UNITED STATES OF AMERICA. NORTH CAROLINA. MACON COUNTY.:** Abundant on the branches of four small trees in the clearing of the back yard of Valentine House, Highlands Biological Station, east of Highlands. - UTM 17 300384E 3880982N – Lat. 35° 03' 14"N, Long. 83° 11' 20"W – *Assoc. spp.:* *Usnea cf. evansii*, *Usnea cf. endrochrysea*, *Usnea sp. in strigosa-group*, *Usnea cf. strigosa ssp. major* (undetermined morphotypes).

Lendemer 725 forms part of a mass collection of short, apotheciate *Usnea* from this locality where >200 thalli were collected and ca. 50 were determined by I.I. Tavares. The thalli included here are those determined to be consubspecific with the type of *Usnea strigosa ssp. major* by I.I. Tavares. Apparently the Highlands region represents an area in which several taxa of the *U. strigosa* group *sensu* Tavares occur together. All other specimens from this mass collection have been retained in hb. Lendemer and, those determined by Tavares have been accessioned into the herbarium.

James C. Lendemer #725

July 15, 2002

85. *Trypethelium virens* Tuckerman *ex* E. Michener  
Det. J.C. Lendemer – March 31, 2003  
Dup. Confirmed (NY!) – R.C. Harris – April 24, 2003

**UNITED STATES OF AMERICA. NORTH CAROLINA. PENDER COUNTY.:** On a small tree on the edge of a water filled ditch, adjacent to a small wooden bridge over ditch, on the edge of a pocosin dominated by *Gordonia lasianthus*, *Persea borbonia* and *Magnolia virginiana*, along Lodge Road, 1.2 miles east of Shaw Highway (SR 1523), 5.3 mi south of NC 53, Holly Shelter Game Land. - Long. 34°33'07"N, Lat. 77°47'37"W – Assoc. spp.: *Canoparmelia caroliniana*, *Phaeographis dendritica*, *Ochrolechia africana*.

Thallus corticolous, crustose, esorediate; ascomata within pseudostromata; ascospores ca. 8 per ascus; spores colorless, >6 celled.

James C. Lendemer *et al.* #726  
w/ participants of Tuckerman Workshop #12

March 18, 2003

**86. *Usnea pensylvanica* Motyka**

Det. J.C. Lendemer – April 2, 2003

Dup. Confirmed (UC!) – I.I. Tavares – April 18, 2003

**UNITED STATES OF AMERICA. NORTH CAROLINA. PENDER COUNTY.:** On live oak (*Quercus laevis*), in a *Pinus palustris*-*Quercus laevis* dominated sand scrub community with a *Vaccinium* understory, 5.3 miles south of NC Route 53, just east of Shaw Highway (NC SR 1523) at Lodge Road, Holly Shelter Game Land. – UTM 18 242782E 3826763N – Lat. 34° 33' 08"N, Long. 77° 48' 11"W – Assoc. spp.: *Usnea strigosa*-group, *Usnea mutabilis*, *Usnea trichodea*, *Parmotrema tinctorum*, *Parmotrema rampoddense*, *Graphis* spp., *Ochrolechia africana*.

Thallus subpendent, corticolous; cortex pigmented dull red at basal (lower) portions of thallus (though the pigment may be dispersed throughout the thallus) ; medulla white; axis opaque to pinkish; soralia abundant on branches and fibrils, with occasional isidiomorphs. A thallus with few fibrils and abundant, large, raised soralia was designated *Lendemer 728* (HB. LENDEMER) and, thalli with an overall more yellow/orange coloration, and pigment dispersed throughout more of the thallus were designated *Lendemer 729* (ASU, FH, MIN, NDA, NY, HB. LENDEMER, UC).

*Usnea pensylvanica* Motyka is one of a number of species of *Usnea* having red pigmentation in the cortex, most of which have at one time or another been referred to *U. rubicunda* Stirton (or *U. rubiginea* (Michaux) A. Massalongo; syn. *U. barbata* var. *rubiginea* (Michaux) Tuckerman), which was a misapplied name. It should be applied to a short apotheciate taxon now referred to as *U. strigosa* ssp. *rubiginea* (Michaux) I.I. Tavares). Following its description by Motyka (1937) *U. pensylvanica* was virtually ignored in print with occasional exceptions such as Flenniken (1999). Most field guides and keys (Brodo *et al.*, 2001; Hinds & Hinds, 1998) have referred material conspecific with the type of *U. pensylvanica* to *U. rubicunda*, presumably simply on the basis of the presence of the red pigmentation. However, the taxa differ in several respects including the branching pattern, general coloration, thickness of cortex, and the internal anatomy as well as characteristics of the soralia and isidia.

Ohmura (2001) placed *U. pensylvanica* in synonymy with *U. rubicunda* without explanation, listing the collector of the type of *U. pensylvanica* as unknown (in fact it was collected by G.H.E. Muhlenberg though this was not indicated by Motyka (1937)). An extensive review of the various taxonomic dispositions of the red *Usneas* is underway (Lendemer & Tavares, unpublished), but it can be stated here that *U. pensylvanica* has a thinner cortex than those taxa that at present are regarded as *U. rubicunda* on the Pacific Coast of North America. Too, in *U. pensylvanica* the soralia are small and not conspicuously elevated above the surface of the cortex, and the red pigmentation is duller in color. The *U. rubicunda* of the Pacific Coast possesses more conspicuous isidia and fibrils. The distribution patterns of the North American material referable to *U. rubicunda* and *U. pensylvanica* have not yet been determined.

James C. Lendemer *et al.* #727  
w/ participants of Tuckerman Workshop #12

March 18, 2003

**87. *Heterodermia albicans* (Persoon) Swinscow & Krog**

Det. J.C. Lendemer – April 2, 2003

**UNITED STATES OF AMERICA. NORTH CAROLINA. CARTERET COUNTY.:** On *Juniperus silicicola* exposed to ocean winds, on the edge of a large maritime forest, dominated by *Quercus virginianus* and *Juniperus silicicola*, Shackleford Island, Cape Lookout National Seashore. – elev. <10ft. - UTM 18 349808E 3838961N – Lat. 34° 41' 01"N, Long. 76° 38' 22"W – Assoc. spp.: *Dirinaria confusa*, *Physcia americana*, *Leptogium cyanescens*, *Pertusaria* sp., *Pertusaria paratuberculifera*, *Parmotrema tinctorum*.

Thallus foliose, corticolous, closely attached to substrate; soralia abundant; medulla KOH+ yellow turning red.

James C. Lendemer *et al.* #730  
w/ participants of Tuckerman Workshop #12

March 19, 2003

88. *Arthonia caesia* (Flotow ex Körber) Körber  
Det. J.C. Lendemer – April 21, 2003  
Dup. Confirmed (NY!) – R.C. Harris – April 24, 2003

**UNITED STATES OF AMERICA. NEW JERSEY. CUMBERLAND COUNTY.:** On oak (*Quercus*), in a mixed pine (*Pinus*) – oak (*Quercus*) – red maple (*Acer rubrum*) forest, on the margins of Bear Swamp West, ca. ¼ mile from entrance along NJ Route 553, east of Newport. – elev. <10 ft. - UTM 18 487253E 4348480N – Lat. 39° 17' 15"N, Long. 75° 08' 52"W – *Assoc. spp.*: *Rinodina maculans*, *Buellia curtisii*, *Heterodermia speciosa*, *Phaeophyscia rubropulchra*, *Punctelia rudecta*, *Parmelia squarrosa*, *Flavoparmelia caperata*, *Lecanora spp.*, *Physcia milligrana*, *Physcia stellaris*, *Pertusaria xanthodes*.

Thallus corticolous, crustose, granular, green; apothecia biatorine, black-blue, with a heavy white pruina.

James C. Lendemer *et al.* #773  
w/ James A. Macklin and Gerry Moore

April 13, 2003

89. *Pertusaria paratuberculifera* Dibben  
Det. J.C. Lendemer – April 27, 2003

**UNITED STATES OF AMERICA. NEW JERSEY. CUMBERLAND COUNTY.:** On a dead oak (*Quercus*), along a small stream (Cedar Branch), in a pine (*Pinus*) / oak (*Quercus*) forest, on the edge of a cedar swamp, several yards south of Factory Road, ca. ¾ mile from intersection of Factory Road with Newport-Center Grove Road, ca. 3 miles northeast of Newport. – elev. ca. 50 ft. - UTM 18 487269E 4352468N – Lat. 39° 19' 24"N, Long. 75° 08' 52"W – *Assoc. spp.*: *Bacidia schweinitzii*, *Punctelia rudecta*, *Flavoparmelia caperata*, *Lepraria spp.*

Thallus corticolous, crustose, blue-gray, thick to thin; cortex UV+ yellow. Note that this species is common throughout New Jersey and seems to prefer the mossy bark of dead oaks.

James C. Lendemer *et al.* #808  
w/ Gerry Moore *et al.*

April 26, 2003

90. *Parmelia squarrosa* Hale  
Det. J.C. Lendemer – April 27, 2003

**UNITED STATES OF AMERICA. NEW JERSEY. CUMBERLAND COUNTY.:** On a dead oak (*Quercus*), along a small stream (Cedar Branch), in a pine (*Pinus*) / oak (*Quercus*) forest, on the edge of a cedar swamp, several yards south of Factory Road, ca. ¾ mile from intersection of Factory Road with Newport-Center Grove Road, ca. 3 miles northeast of Newport. – elev. ca. 50 ft. - UTM 18 487269E 4352468N – Lat. 39° 19' 24"N, Long. 75° 08' 52"W – *Assoc. spp.*: *Bacidia schweinitzii*, *Punctelia rudecta*, *Flavoparmelia caperata*, *Lepraria spp.*

Thallus corticolous, foliose, isidiate; underside black; medulla KOH+ red; isidia sparse near lobe tips, becoming abundant towards center of thallus.

James C. Lendemer *et al.* #809  
w/ Gerry Moore *et al.*

April 26, 2003

91. *Fissurina insidiosa* C. Knight & Mitten  
Det. James C. Lendemer – April 29, 2003

**UNITED STATES OF AMERICA. NEW JERSEY. CUMBERLAND COUNTY.:** On the bark of sweet bay magnolia (*Magnolia virginiana*), in a swampy old-growth forest of *Liriodendron*, *Liquidambar*, *Quercus*, and *Acer rubrum* with a sparse *Vaccinium* / *Smilax* understory, along Nature Conservancy property

boundary, Bear Swamp West, ca. 2 miles northeast of Newport. – elev. ca. 10 ft. - UTM 18 488493E 4349984N – Lat. 39° 18' 04"N, Long. 75° 08' 01"W – *Assoc. spp.*: *Graphis spp.*, *Pertusaria spp.*

Thallus corticolous, crustose, blue-gray, cortex UV-; lirellae immersed within thallus; spores colorless, 4-celled, transversely septate. This species was observed growing only on this tree and another several hundred yards away (*Lendemer 812*).

James C. Lendemer *et al.* #811  
w/ Gerry Moore *et al.*

April 26, 2003

**92. *Cladonia incrassata* Flörke**

Det. J.C. Lendemer – April 29, 2003

Dup. Confirmed (H!) – T. Ahti – August 12, 2003

**UNITED STATES OF AMERICA. NEW JERSEY. CUMBERLAND COUNTY.:** On rotting logs (mostly *Pinus*) on the margins of a dirt road bordering Bear Swamp East Natural Area, on the edge of a mixed pine (*Pinus* spp.) / oak (*Quercus*) forest, ca. 4 miles northeast of Newport, ca. 2 miles east of Paynters Crossing, < ½ mile east of Dividing Creek Station, Bear Swamp East Natural Area. – elev. 45 ft. - UTM 18 492354E 4350126N – Lat. 39° 18' 09"N, Long. 75° 05' 19"W – *Assoc. spp.*: *Cladonia cristatella*, *Cladonia parasitica*, *Cladonia grayi*, *Cladonia spp.*

Thallus lignicolous; podetia short, esorediate; apothecia bright red; “primary” squamules sorediate (on the lower surface), medulla UV+ blue-white.

James C. Lendemer *et al.* #812  
w/ Gerry Moore *et al.*

April 27, 2003

**93. *Lobaria quercizans* Michaux**

Det. J.C. Lendemer – April 29, 2003

**UNITED STATES OF AMERICA. NEW JERSEY. CUMBERLAND COUNTY.:** Covering the trunk of a large red maple (*Acer rubrum*), in an old growth forest of *Liriodendron*, *Liquidambar*, and *Magnolia*, ca. ¾ mile south of railroad tracks, ca. 1 mile southeast of Dividing Creek Station, ca. 5 miles northeast of Newport. - elev. < 10 ft. - UTM 18 492937E 4348922N – Lat. 39° 17' 29"N, Long. 75° 04' 55"W – *Assoc. spp.*: *Punctelia rudecta*, *Anaptychia palmulata*, *Baicida schweinitzii*, *Lepraria spp.*, *Phaeophyscia rubropulchra*.

Thallus corticolous, foliose, gray; lobes broad, abundant, overlapping; underside pale.

James C. Lendemer *et al.* #813  
w/ Gerry Moore *et al.*

April 27, 2003

**94. *Phaeophyscia rubropulchra* (Degelius) Esslinger**

Det. J.C. Lendemer – May 4, 2003

**UNITED STATES OF AMERICA. NEW JERSEY. CUMBERLAND COUNTY.:** On the moss covered bark of an oak (*Quercus*) at the entrance to North/South Trail along Ackley Road, on the border of a pine (*Pinus*) dominated forest of pine (*Pinus*) and oak (*Quercus*), Nature Conservancy Preserve, Bear Swamp West, ca. 1 mile northeast of Frames Corner.- elev. < 70 ft. - UTM 18 487958E 4351091N – Lat. 39° 18' 40"N, Long. 75° 08' 23"W – *Assoc. spp.*: *Punctelia subrudecta*, *Punctelia rudecta*, *Flavoparmelia caperata*, *Parmotrema spp.*, *Parmelia squarrosa*.

Thallus corticolous, foliose, gray, soraliolate; underside and rhizines black; medulla orange to red.

James C. Lendemer *et al.* #823  
w/ Gerry Moore *et al.*

April 26, 2003

**95. *Biatora longispora* (Degelius) Lendemer & Printzen *comb. nov.*<sup>1</sup>**

Det. R.C. Harris & J.C. Lendemer – May 15, 2003

Dup. Confirmed (FR!) – C. Printzen – June 14, 2003

**UNITED STATES OF AMERICA. NEW YORK. PUTNAM COUNTY.:** On ash (*Fraxinus*), at trail-head along Couch Road, Cornwall Hill, south of Couch Road, ca. .04 miles east of Cornwall Hill Road,

Sterling Farm Preserve, Patterson. – elev. ca. 600 ft. - UTM 18 617408E 4593336N – Lat. 41° 29' 06"N, Long. 73° 35' 37"W – Assoc. spp.: *Phaeophyscia rubropulchra*, *Lepraria* sp.

Thallus corticolous, crustose, gray-blue, esorediate; apothecia biatorine, pale orange; spores long, (0)-1-(3) septate, colorless.

James C. Lendemer #829 & William R. Buck

May 14, 2003

**96. *Parmelia squarrosa* Hale**

Det. J.C. Lendemer – May 18, 2003

**UNITED STATES OF AMERICA. NEW JERSEY. BURLINGTON COUNTY.:** Abundant on oak (*Quercus*), in a pine (*Pinus rigida*, *Pinus* spp.) dominated pine-oak forest, at the intersection of two unnamed sand roads, ca. ¾ mile west of Lower Forge, ca. 2 ¼ miles southeast of Atsion, Batsto Natural Area, Wharton State Forest. – elev. ca. 40 ft. - UTM 18 526952E 4396821N – Lat. 39° 43' 22"N, Long. 74° 41' 08"W – Assoc. spp.: *Flavoparmelia caperata*, *Punctelia rudecta*, *Parmotrema* spp., *Cladonia* spp., *Hypotrachyna livida*, *Parmelia sulcata*.

Thallus corticolous, foliose, gray-blue, isidiate; underside black; medulla white, KOH+ red. Note that at this locality *P. sulcata* Taylor (soraliate, and lacking densely squarrosely branched rhizines) occurs with *P. squarrosa*.

James C. Lendemer #832 & Leonard H. Smith II

May 17, 2003

**97. *Hypotrachyna livida* (Taylor) Hale**

Det. J.C. Lendemer – May 18, 2003

**UNITED STATES OF AMERICA. NEW JERSEY. BURLINGTON COUNTY.:** Abundant on oak (*Quercus*), in a pine (*Pinus rigida*, *Pinus* spp.) dominated pine-oak forest, at the intersection of two unnamed sand roads, ca. ¾ mile west of Lower Forge, ca. 2 ¼ miles southeast of Atsion, Batsto Natural Area, Wharton State Forest. – elev. ca. 40 ft. - UTM 18 526952E 4396821N – Lat. 39° 43' 22"N, Long. 74° 41' 08"W – Assoc. spp.: *Flavoparmelia caperata*, *Punctelia rudecta*, *Parmotrema* spp., *Cladonia* spp., *Parmelia squarrosa*, *Parmelia sulcata*.

Thallus corticolous, foliose, gray, esorediate, lacking isidia; apothecia abundant.

James C. Lendemer #833 & Leonard H. Smith II

May 17, 2003

**98. *Flavoparmelia baltimorensis* (Gyelnik & Förliss) Hale**

Det. J.C. Lendemer – May 19, 2003

**UNITED STATES OF AMERICA. PENNSYLVANIA. CARBON COUNTY.:** On rocks on a steep rocky slope, on the north shore of Mud Run Creek, Mud Run Natural Area, Hickory Run State Park, ca. 1 ½ miles southwest of Albrightsville. – elev. ca. 1300 ft. - UTM 18 446059E 4539244N – Lat. 41° 00' 16"N, Long. 75° 38' 29"W – Assoc. spp.: *Xanthoparmelia* spp., *Lepraria* sp.

Thallus saxicolous, foliose, loosely attached to substrate, yellow-green, pustular/schizidiate; pustules on lobe surface, sparse near tips, abundant near center; underside black, with a marginal brown zone.

James C. Lendemer #840 & Erin Tripp

May 18, 2003

**99. *Parmelia neodiscordans* Hale**

Det. J.C. Lendemer – May 19, 2003

**UNITED STATES OF AMERICA. PENNSYLVANIA. CARBON COUNTY.:** On several rocks in a *Rhododendron* thicket with partial sun, at the base of a steep rocky slope, on the north shore of Mud Run Creek, Mud Run Natural Area, Hickory Run State Park, ca. 1 ½ miles southwest of Albrightsville. – elev. ca. 1300 ft. - UTM 18 446059E 4539244N – Lat. 41° 00' 16"N, Long. 75° 38' 29"W – Assoc. spp.: *Xanthoparmelia* spp., *Lepraria* sp., *Punctelia rudecta*, *Flavoparmelia baltimorensis*.

Thallus saxicolous, foliose, esorediate, isidia lacking, apothecia lacking; underside black; lobules abundant, small, with slightly browned tips; medulla white, KOH-, KC+ rose.

James C. Lendemer #841 & Erin Tripp

May 18, 2003

**100. *Placynthiella oligotropa* (J.R. Laundon) Coppins & P. James**  
Det. J.C. Lendemer – May 19, 2003  
Dup. Confirmed (NY!) – R.C. Harris – June 24, 2003

**UNITED STATES OF AMERICA. NEW JERSEY. BURLINGTON COUNTY.:** Abundant on sandy soil, on the margins of an unnamed sand road, in a pine (*Pinus rigida*, *Pinus* spp.) dominated pine-oak forest, at the intersection of two unnamed sand roads, ca. ¾ mile west of Lower Forge, ca. 2 ¼ miles southeast of Atsion, Batsto Natural Area, Wharton State Forest. – elev. ca. 40 ft. - UTM 18 526952E 4396821N – Lat. 39° 43' 22"N, Long. 74° 41' 08"W – *Assoc. spp.*: *Cladonia* spp.

Thallus terricolous, areolate; areoles brown (olive when wet), esorediate.

James C. Lendemer #839 & Leonard H. Smith II

May 18, 2003

#### ACKNOWLEDGMENTS

When I began to prepare this exsiccata some individuals expressed their doubts as to the value of distributing specimens from a region that was “so well known.” An overwhelming number of others (lichenologists and general botanists alike) however encouraged me to undertake this project despite such objections and I would like to take this opportunity to thank those who have continued to support me in innumerable ways in both the field and herbarium. I also wish to thank the following for their companionship during fieldwork: William R. Buck (NY), James A. Macklin (NJ), Moira J. Moody (WV), Gerry Moore (NJ), Leonard H. Smith II (NC, NJ), Erin Tripp (NJ), the participants of Tuckerman Workshop #12 (NC), The Philadelphia Botanical Club (NJ), and The Torrey Botanical Club (NJ). Lastly, I wish to thank the following individuals for identifying and verifying specimens distributed in the second fascicle of this exsiccata: Teuvo Ahti (H), Othmar Breuss (W), Theodore Esslinger (NDA), Richard C. Harris (NY), Scott LaGreca (FH), Louise Lindblom (BG), Christian Printzen (FR), John W. Sheard (SASK), Isabelle I. Tavares (UC), and Orvo Vitikainen (H).

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#### END NOTES

<sup>1</sup>*Biatora longispora* (Degelius) Lendemer & Printzen *comb. nov.*

*Lecidea helvola* var. *longispora* Degelius, Ark. Bot., 30A: 38. 1943. TYPE: On trunk of *Abies fraseri*, Forney Ridge, North Carolina, USA. 12.IX.1939. *Degelius s.n.* (UPS!, holotype).

Thallus endosubstratal or smooth to irregularly wrinkled, rarely rimose in parts and forming areoles of 0.3-0.6 mm diam., esorediate; surface light green to vivid green, whitish to sordid gray in older specimens, matt; photobiont trebouxoid. Apothecia rounded to deformed, rarely tuberculate, mostly single, more rarely crowded in small groups,

sessile with a weakly constricted base, often closely appressed on the thallus, av. diam. 0.25-0.45 mm, max. diam. 0.40-0.75 mm; disc beige to orange brown, flat to weakly, rarely strongly convex, epruinose, matt to slightly glossy; margin relatively broad but weakly prominent in young apothecia, persistent or excluded in older apothecia, of same color or slightly lighter than disc on the outside, often slightly darker near disc, glossy. Exciple colorless throughout or colorless externally and yellowish brown to orange brown inside especially near hymenium, laterally 40-65  $\mu\text{m}$ , basally 35-65 (-120)  $\mu\text{m}$  wide, of radiating, weakly branched and anastomosing hyphae with cylindrical lumina of 1-2  $\mu\text{m}$ , apically 1-3  $\mu\text{m}$ ; hypothecium 25-50 (-80)  $\mu\text{m}$  high, colorless or pale golden-yellow; subhymenium 20-50 (-65)  $\mu\text{m}$  high; hymenium (40-) 45-50  $\mu\text{m}$  high, pale yellow to orange brown, rarely colorless; epihymenium lacking; paraphyses simple or weakly branched and anastomosing, with 0.7-1.0  $\mu\text{m}$ , apically 1.0-1.2 (-1.5)  $\mu\text{m}$  wide lumina; ascospores colorless, simple, very rarely 1-septate, (12.5-) 16.5-21.6 (-26.0)  $\times$  (3.0-) 3.5-4.1 (-5.0)  $\mu\text{m}$ . Pycnidia not observed. Chemistry: no substances by TLC.

Among predominantly corticolous species of *Biatora*, *B. longispora* is characterized by the absence of lichen substances and the extremely long and narrow, eseptate spores. *Biatora alborufidula* (Hedl.) S. Ekman & Printzen has shorter and narrower ascospores that are mostly 1-septate, in *B. nobilis* Printzen & Tønsberg and *B. rufidula* (Graewe) S. Ekman & Printzen they are 3-septate and much broader. *Biatora vernalis* (L.) Fr., which is only occasionally corticolous, and the closely related *B. alaskana* Printzen & Tønsberg, both have considerably larger apothecia and ascospores. The Central European *B. subgilva* (Arnold) Hinteregger has similarly long and narrow spores, but contains usnic and isousnic acids. Furthermore it is hitherto only known from a restricted area in the eastern Alps, where it grows on subalpine shrubs. Characteristic features of *B. longispora* are comparatively small and shallow, often somewhat appressed apothecia with a conspicuously glossy margin. As in *B. subduplex*, which has shorter ascospores, the interior parts of the exciple are often pigmented orange-brown. In both species this pigmentation is visible from the outside as a slightly darker ring around the apothecial disc. *Biatora longispora* was described as a variety of *Lecidea helvola* (= *Biatora helvola*) by Degelius (1941) on the basis of four collections from the Great Smoky Mountains (North Carolina and Tennessee). To our knowledge the name has not been used afterwards by North American authors. Most of the specimens seen by us originate also from the southern Appalachians, but the collections from Massachusetts, New Jersey, and New York show that the species is actually much more widely distributed. As far as can be deduced from the limited material seen by us, *B. longispora* prefers the bark of deciduous trees and shrubs (*Acer saccharum*, *Acer* sp., *Aesculus octandra*, *Alnus rugosa*, *Hamamelis virginiana*, *Ilex* sp., *Quercus rubra*, *Sorbus americana*). In the southern part of its range it was collected between 970-1820 m elevation, in the northern part between 450-790 m.

Selected Specimens Examined: U.S.A.: Connecticut. Litchfield Co. *Lendemer* 1370, 1386 (HB. LENDEMER). Georgia. Union Co. *Printzen* 6638, 6639 (BG). Massachusetts. Berkshire Co. *May* 5409, 5412, 5446 (hb. May). Worcester Co. *May* 3286 (hb. May), *Lay* 4342 (hb. May). Maine. York Co. *May* 5959A, 5963C, 5964A, 5965A, 5965B, 5966B, 5967A, 5969, 5970B, 5971A (hb. May). New Hampshire. Carroll Co. *May* 5949B, 5950A, 5951A, 5952B, 5953, 5956A, 5957A (hb. May). New Jersey. Cumberland Co. *Lendemer et al.* 793 (HB. LENDEMER). New York. Putnam Co. *Lendemer & Buck* 829 (HB. LENDEMER). Rensselaer Co. *May* 5997A, 5997B, 5998, 6002, 6003, 6004A, 6014 (hb. May). Ulster Co. *Tønsberg* 17784 (BG). North Carolina. Haywood Co. *Tønsberg* 21876 (BG). Jackson Co. *Nash* 18777 (STU). Swain Co. *Nordin* 4059 (UPS). *Printzen* 6818, 6835 (BG). Transylvania Co. *Tønsberg* 21793, 21796 (BG). Ohio. Hocking Co. *Wetmore* 18076 (MIN). Pennsylvania. Carbon Co. *Lendemer & Rhoads* 1290, 1291, 1292 (HB. LENDEMER). Pike Co. *May* 6018, 6019, 6025, 6026A, 6028, 6029, 6030, 6033, 6035, 6037 (hb. May). Wyoming Co. *May* 6038, 6040, 6041, 6044, 6045, 6046, 6054, 6056, 6061, 6062 (hb. May). Tennessee. Polk Co. *Printzen* 6875 (BG). Unicoi Co. *Printzen* 6781 (BG). Vermont. Bennington Co. *May* 5978, 5979B, 5981, 5984, 5987, 5989 (hb. May). Virginia. Washington Co. *Printzen* 6746 (BG). West Virginia. Pocahontas Co. *Lendemer & Moody* 871, 872, 876, 878, 879, 880, 881 (HB. LENDEMER).

