

The Lichen Flora of Putnam County, Illinois

Richard D. Hyerczyk
The Nature Conservancy
Volunteer Stewardship Network
Chicago, IL 60603

ABSTRACT

Seventy-seven species of lichens are reported from Putnam County, Illinois. An annotated species list along with growth forms, habitats and relative frequency of each taxon is provided.

INTRODUCTION

Putnam County, is located in north-central Illinois approximately 194 km (120 miles) southwest of Chicago (Figure 1). With an area of 414 square kilometers (159 square miles) it is the smallest county in Illinois.

Most of the county is located in the Grand Prairie Division (the Grand Prairie Section) of the natural divisions of Illinois (Schwegman 1973). The county is generally characterized by level or gently rolling topography with elevations averaging 200 meters (660 feet) above sea level. Along the bluff areas of the Illinois River, elevations drop to 130 meters (425 feet) above sea level, representing the Upper Mississippi & Illinois River Bottom Lands Division (the Illinois River Section) and the Illinois River & Mississippi River Sand Area Division (the Illinois River Section).

Other than the work of Jones (1993) who reported 47 species of lichens, no other lichenological studies are known from Putnam County.

MATERIALS AND METHODS

This project was conducted from April of 1991 until August of 1995 to study the habitats and determine the number of lichens from Putnam County, Illinois. All substrates were considered, including corticolous (on tree bark), saxicolous (on concrete and stone), lignicolous (on rotten stumps and wood rail fencing) and terricolous (on weathered clay till and sand).

Collections were made from 13 named locations (State- and County-owned Conservation areas and private cemeteries). Collections from unnamed locations were put in a "miscellaneous" group, for a total of 14 study sites (Table 1). Study sites were visited year-round and each site was visited at least five times.

Specimens were identified using keys by Brodo (1968 and 1988), Hale (1979) and Wilhelm (1995). Tests for color changes of lichen chemical substances were done with the following reagents: sodium hypochlorite (**C**) and potassium hydroxide (**KOH**). Thin-layer chromatography (**TLC**) following Culberson (1972) was used to verify secondary-product chemistry.

The relative frequency of the lichens reported here was determined by the number of sites at which each lichen was observed, and was not based on collections (Table 2). **Rare**: one site; **Occasional**: two to five sites; **Frequent**: six to ten sites; **Common**: eleven to fourteen sites.

It was brought to my attention by an anonymous reviewer that two additional lichen species had been located in the collection of the Illinois Natural History Survey. I have not included these lichens in this paper because I was not able to examine the vouchers for these plants

RESULTS

Seventy-seven species of lichens in 39 genera representing 18 families are reported from Putnam County, Illinois (Table 2). Forty lichens (52%) are of the crustose growth form, 23 (30%) are foliose and 14 (18%) are fruticose.

Three lichens (4%) are considered to be common, and of these only *Candelaria concolor* and *Phycia millegrana* were found at every site surveyed. Twenty-seven (35%) are rare, known only from a single collection. Forty (52%) are occasional and seven (9%) are frequent.

The Natural Lands Area (NLA) (Figure 1, Site number 1), with 38 species, and Lake Sennachwine Conservation Area (LSCA) (Figure 1, Site number 2), with 32 species, had the highest number of lichens observed. The diversity of habitats (open oak woodlands and sand deposits at NLA and a gravel pit at LSCA) may explain the higher numbers of species found at these sites.

The remaining State- and County-owned preserves consisted of shaded woodlands. Many of the lichens observed at these sites were found in only sunnier locations along the perimeter of these preserves.

Fewer species were found at the seven cemeteries, a fact that may be attributed to their smaller land area and reduced diversity of habitats (marble headstones and a few trees).

Of the 47 lichen species reported by Jones (1993) I was able to find 38 (80%) in the field. I have not included the remaining nine species because I was unable to locate or examine vouchers for these plants.

ANNOTATED SPECIES LIST

What follows is an annotated list of lichens that were collected by the author and Michael D. Jones. Nomenclature and authority follow Esslinger and Egan (1995). The growth form and substrate are also listed after the name of each lichen. At least one specimen of each species reported has been deposited in the herbarium at the Morton Arboretum (MOR) in Lisle, Illinois.

Family ACAROSPORACEAE

SARCOGYNE Flotow

Sarcogyne regularis Körber [CRUSTOSE] [SAXICOLOUS]

Rare; known only from a single collection from dolomite in a gravel pit at Lake Sennachwine Preserve. Hyerczyk 338.

THELOCARPON Nyl. *ex* Hue

Thelocarpon laureri (Flotow) Nyl. [CRUSTOSE] [LIGNICOLOUS]

Rare; known only from a single collection from a wooden fence post at Lake Sennachwine Preserve. Hyerczyk 1262.

Family ARTHONIACEAE

ARTHONIA Ach.

Arthonia caesia (Flotow) Körber [CRUSTOSE] [CORTICOLOUS]

Frequent; on *Gleditsia triacanthos* near Hennepin (Hyerczyk 27), on *Gleditsia triacanthos* at the Donnelly State Wildlife Area (Hyerczyk 26) and on *Acer saccharum* at the Fox Run Conservation Area (Hyerczyk 31).

Family BACIDIACEAE

BACIDIA De Not.

Bacidia granosa (Tuck.) Zahlbr. [CRUSTOSE] [SAXICOLOUS]

Occasional; on dolomite at the Donnelly State Wildlife Area (Hyerczyk 427) and on limestone rubble at the Natural Lands Area (Hyerczyk 1168).

BACIDINA Vêzda

Bacidina inundata (Fr.) Vêzda [CRUSTOSE] [SAXICOLOUS]

Occasional; on an igneous boulder on a forested slope near Magnolia. Jones 3933.

Family CLADONIACEAE

CLADINA Nyl.

Cladina subtenuis (Abbayes) Hale & Culb. [FRUTICOSE] [TERRICOLOUS]

Rare; known only from a single collection from sand at the Natural Lands Area. Jones 3912.

CLADONIA P. Browne

Cladonia chlorophaea (Flörke *ex* Sommerf.) Sprengel [FRUTICOSE] [TERRICOLOUS]

Occasional; on clay at the Donnelly State Wildlife Area (Hyerczyk 396) and the Fox Run Conservation Area (Hyerczyk 417).

- Cladonia coniocraea* (Flörke) Sprengel [FRUTICOSE] [LIGNICOLOUS]
Occasional; on rotten logs in shaded woods at the Fox Run Conservation Area (Hyerczyk 29) and the George S. Park Nature Preserve (Hyerczyk 390).
- Cladonia cristatella* Tuck. [FRUTICOSE] [LIGNICOLOUS, TERRICOLOUS]
Occasional; on rotten logs and on sand at the Natural Lands Area. Jones 3909a.
- Cladonia cylindrica* (A. Evans) A. Evans [FRUTICOSE] [LIGNICOLOUS]
Occasional; on rotten logs at the Natural Lands Area (Hyerczyk 409) and the George S. Park Nature Preserve (Hyerczyk 391).
- Cladonia grayi* G. K. Merr. *ex* Sandst. [FRUTICOSE] [TERRICOLOUS]
Rare; known only from a single collection from sand at the Natural Lands Area. Jones 3914.
- Cladonia humilis* (With.) J. R. Laundon [FRUTICOSE] [TERRICOLOUS]
Rare; known only from a single collection from weathered clay at the Fox Run Conservation Area. Hyerczyk 52.
- Cladonia macilenta* var. *bacillaris* (Genth) Schaerer [FRUTICOSE] [LIGNICOLOUS]
Occasional; on rotten logs near Putnam (Hyerczyk / Kierny 37), at the Donnelly State Wildlife Area (Hyerczyk 1169), the Fox Run Conservation Area (Hyerczyk 419), Lake Sennachwine Preserve (Hyerczyk 116) and the Natural Lands Area (Hyerczyk 400).
- Cladonia peziziformis* (With.) J. R. Laundon [FRUTICOSE] [TERRICOLOUS]
Occasional; on sand at the Donnelly State Wildlife Area (Hyerczyk 399) and the Natural Lands Area (Jones 3915).
- Cladonia piedmontensis* G. Merr. [FRUTICOSE] [TERRICOLOUS]
Rare; known only from a single collection from sand at the Natural Lands Area. Jones 3911.
- Cladonia polycarpoides* Nyl. [FRUTICOSE] [TERRICOLOUS]
Occasional; on sandy soil in an open field at the Fox Run Conservation Area (Hyerczyk 416) and on sand at the Natural Lands Area (Jones 3910).
- Cladonia ramulosa* (With.) J. R. Laundon [FRUTICOSE] [CORTICOLOUS]
Rare; known only from a single collection from *Prunus serotina* at the Natural Lands Area. Hyerczyk 1345.
- Cladonia rei* Schaerer [FRUTICOSE] [LIGNICOLOUS, TERRICOLOUS]
Occasional; on rotten logs at the Donnelly State Wildlife Area (Hyerczyk 424) and on sand at the Natural Lands Area (Jones 3909).
- Cladonia subulata* (L.) F. H. Wigg. [FRUTICOSE] [LIGNICOLOUS]
Rare; known only from a single collection from a dead tree at the Donnelly State Wildlife Area. Hyerczyk 48.

Family CYPHELIACEAE

CYPHELIUM Ach.

- Cyphelium tigillare* (Ach.) Ach. [CRUSTOSE] [LIGNICOLOUS]
Occasional; on a wood rail fence at the Donnelly State Wildlife Area. Hyerczyk 425.

Family **GRAPHIDACEAE****GRAPHIS** Adans.*Graphis scripta* (L.) Ach. [CRUSTOSE] [CORTICOLOUS]Occasional; on *Acer saccharum* at the George S. Park Nature Preserve. Hyerczyk 47.Family **LECANORACEAE****ASPICILIA** A. Massal.*Aspicilia caesiocinerea* (Nyl. ex Malbr.) Arnold [CRUSTOSE] [SAXICOLOUS]

Rare; known only from a single collection from granite at the Fox Run Conservation Area. Hyerczyk 381. This species has also been found on granite in southwestern Cook County.

CANDELARIELLA Müll. Arg.*Candelariella reflexa* (Nyl.) Lettau [CRUSTOSE] [CORTICOLOUS]Rare; known only from a single collection from *Quercus rubra* at the George S. Park Nature Preserve. Hyerczyk 1181.*Candelariella xanthostigma* (Ach.) Lettau [CRUSTOSE] [CORTICOLOUS]Occasional; on *Populus deltoides* (Jones 3907e) at the Natural Lands Area and on *Quercus* sp. (Hyerczyk 426) at the Donnelly State Wildlife Area.**LECANORA** Ach.*Lecanora dispersa* (Pers.) Sommerf. [CRUSTOSE] [SAXICOLOUS]

Frequent; on dolomite (Hyerczyk 336) at Lake Sennachwine Preserve and on concrete (Hyerczyk 50) near Granville.

Lecanora strobilina (Sprengel) Kieffer [CRUSTOSE] [LIGNICOLOUS]

Rare; known only from a single collection from a wood fence post at Lake Sennachwine Preserve. Hyerczyk 1263.

Lecanora symmicta (Ach.) Ach. [CRUSTOSE] [CORTICOLOUS]Occasional; on *Quercus* sp. near Standard. Hyerczyk 49.Family **MONOBLASTACEAE****ANISOMERIDIUM** (Müll. Arg.) Choisy*Anisomeridium nyssigenum* (Ellis&Everh.) R.C.Harris [CRUSTOSE] [CORTICOLOUS]Occasional; on *Acer saccharum* at the Fox Run Conservation Area. Hyerczyk 33.Family **OPEGRAPHIDACEAE****OPEGRAPHIA** Ach.*Opegrapha atra* Pers. [CRUSTOSE] [CORTICOLOUS]Occasional; on *Ulmus americana* (Hyerczyk 332) near Putnam and on *Ulmus americana* (Hyerczyk 1162) at the Fox Run Conservation Area.Family **PARMELIACEAE****CANDELARIA** A. Massal.*Candelaria concolor* (Dickson) Stein [FOLIOSE] [CORTICOLOUS, LIGNICOLOUS, SAXICOLOUS]Common; on wood fences, boulders and a variety of trees throughout the county, including *Crataegus mollis*. Hyerczyk 22.

Candelaria concolor var. *effusa* (Tuck.) G. Merr. & Burnham [FOLIOSE] [LIGNICOLOUS]
Occasional; on a wooden fence post near Putnam. Hyerczyk 1170.

FLAVOPARMELIA Hale

Flavoparmelia caperata (L.) Hale [FOLIOSE] [CORTICOLOUS]
Occasional; on *Quercus rubra* at the George S. Park Nature Preserve. Hyerczyk 1179.

FLAVOPUNCTELIA (Krog) Hale

Flavopunctelia soledica (Nyl.) Hale [FOLIOSE] [CORTICOLOUS]
Rare; known only from a single collection from an open grown *Quercus* sp. near Standard. Hyerczyk 20.

PARMELIA Ach.

Parmelia sulcata Taylor [FOLIOSE] [CORTICOLOUS]
Occasional; on *Crataegus mollis* (Hyerczyk 43) at the Donnelly State Wildlife Area and on *Quercus rubra* (Hyerczyk 1182) at the George S. Park Nature Preserve.

PUNCTELIA Krog

Punctelia bolliana (Müll. Arg.) Krog [FOLIOSE] [CORTICOLOUS]
Occasional; on *Populus deltoides* (Jones 3905), on *Quercus alba* (Jones 3761) and on *Quercus macrocarpa* (Hyerczyk 326).

Punctelia missouriensis Wilhelm & Ladd [FOLIOSE] [CORTICOLOUS]
Occasional; on *Quercus rubra* (Hyerczyk 1180) at the George S. Park Nature Preserve and on *Acer* sp. at Friends Cemetery (Hyerczyk 1358).

Punctelia rudecta (Ach.) Krog [FOLIOSE] [CORTICOLOUS, LIGNICOLOUS]
Occasional; on a dead tree (Hyerczyk 45) at the Donnelly State Wildlife Area and on *Quercus rubra* (Hyerczyk 1183) at the George S. Park Nature Preserve.

Family **PELTIGERACEAE**

PELTIGERA Willd.

Peltigera didactyla (With.) J. R. Laundon [FOLIOSE] [TERRICOLOUS]
Rare; known only from a single collection from clay at the Donnelly State Wildlife Area. Hyerczyk 392.

Family **PERTUSARIACEAE**

PERTUSARIA D C.

Pertusaria pustulata (Ach.) Duby [CRUSTOSE] [CORTICOLOUS]
Rare; known only from a single collection from *Carya ovata* at the Natural Lands Area. Jones 3939.

Family **PLEOMASSARIACEAE**

JULELLA Fabre

Julella sericea (Massal.) Coppins [CRUSTOSE] [CORTICOLOUS]
Occasional; on *Quercus rubra* at the Natural Lands Area. Jones 3895.

Family **PYRENULACEAE****LICHENOTHELIA** D. Hawksw.*Lichenothelia* sp. [CRUSTOSE] [SAXICOLOUS]

Occasional; on granite at the Fox Run Conservation Area. Hyerczyk 1161.

Family **PYXINACEAE****AMANDINEA** Choisy *ex* Scheid. & H. Mayrh.*Amandinea punctata* (Hoffm.) Coppins & Scheid. [CRUSTOSE] [LIGNICOLOUS]

Occasional; on wood rail fences (Hyerczyk 327), (Jones 3766).

BUELLIA De Not.*Buellia dakotensis* (H. Magn.) Sheard, *in ed.* [CRUSTOSE] [CORTICOLOUS]Rare; known only from a collection from an *Acer* sp. branch at Union Grove Cemetery near Granville. Hyerczyk 1361.**HYPERPHYSCIA** Müll. Arg.*Hyperphyscia adglutinata* (Flörke) H. Mayrh. & Poelt [FOLIOSE] [CORTICOLOUS]Occasional; on *Acer negundo* (Hyerczyk 328) near McNabb and on *Populus deltoides* at the Natural Lands Area (Jones 3906).**PHAEOPHYSCIA** Moberg*Phaeophyscia cernohorskyi* (Nádv.) Essl. [FOLIOSE] [SAXICOLOUS]

Occasional; on a marble headstone at Magnolia cemetery. Hyerczyk 1174.

Phaeophyscia ciliata (Hoffm.) Moberg [FOLIOSE] [SAXICOLOUS]

Occasional; on a marble headstone (Hyerczyk 1173) at Magnolia Cemetery and on a marble headstone (Hyerczyk 1349) at St. Joseph Cemetery.

Phaeophyscia orbicularis (Necker) Moberg [FOLIOSE] [CORTICOLOUS]Rare; known only from a single collection from *Ulmus americana* near Putnam. Hyerczyk 34.*Phaeophyscia rubropulchra* (Degel.) Essl. [FOLIOSE] [CORTICOLOUS]Frequent; on tree bases in damp, shaded woods, including *Quercus rubra* (Hyerczyk 44) at the Donnelly State Wildlife Area and *Quercus rubra* at the Natural Lands Area (Jones 3894).**PHYSCIA** (Schreber) Michaux*Physcia adscendens* (Fr.) H. Olivier [FOLIOSE] [SAXICOLOUS]

Frequent; on marble headstones at Mount Palatine Cemetery Nature Preserve. (Hyerczyk 329), (Jones 3880).

Physcia aipolia (Ehrh. *ex* Humb.) Fürnr. var. *aipolia* [FOLIOSE] [CORTICOLOUS]Occasional; on *Ulmus americana* (Hyerczyk 53) near Putnam and on *Fraxinus americana* (Hyerczyk 1348) at St. Joseph Cemetery near McNabb.*Physcia millegrana* Degel. [FOLIOSE] [CORTICOLOUS, LIGNICOLOUS]Common; on a variety of trees, including *Quercus muhlenbergii* (Hyerczyk 21), (Jones 3926) and wood rail fences throughout the county.*Physcia stellaris* (L.) Nyl. [FOLIOSE] [CORTICOLOUS]Common; on a variety of trees throughout the county, including *Acer saccharum* (Hyerczyk 19, 23) near Granville.

PHYSICIELLA Essl.*Physciella chloantha* (Ach.) Essl. [FOLIOSE] [CORTICOLOUS]Frequent; on a variety of trees, including *Ulmus americana* (Hyerczyk 418) at the Fox Run Conservation Area and *Ulmus americana* (Hyerczyk 28) near Putnam.**PHYSCONIA** Poelt*Physconia detersa* (Nyl.) Poelt [FOLIOSE] [CORTICOLOUS, SAXICOLOUS]Occasional; on a variety of trees, including *Populus deltoides*, *Quercus muhlenbergii* (Jones 3925) and *Ulmus rubra* and on marble headstones in cemeteries.*Physconia kurokawae* Kashiw. [FOLIOSE] [CORTICOLOUS]Occasional; on *Populus alba* (Hyerczyk 333) near Putnam and *Quercus rubra* (Hyerczyk 1178) at the George S. Park Nature Preserve.**RINODINA** (Ach.) Gray*Rinodina papillata* H. Magn. [CRUSTOSE] [CORTICOLOUS]Rare; known only from a single collection from *Populus deltoides* at the Natural Lands Area. Jones 3907b.

"Sterile Lichens"

LEPRARIA Ach.*Lepraria lobificans* Nyl. [CRUSTOSE] [CORTICOLOUS, SAXICOLOUS]Occasional; on granite boulders and tree bases in damp woods, including *Quercus rubra* at the Fox Run Conservation Area (Hyerczyk 30) and *Quercus rubra* at the Natural Lands Area (Jones 3901, 3902).*Lepraria* sp.# 1 [CRUSTOSE] [CORTICOLOUS]Rare; known only from a single collection from the base of *Prunus serotina* at the Natural Lands Area. Hyerczyk 408.Family **TELOSCHISTACEAE****CALOPLACA** Th. Fr.*Caloplaca feracissima* H. Magn. [CRUSTOSE] [SAXICOLOUS]

Frequent; on concrete at Magnolia Cemetery. Hyerczyk 1171.

Caloplaca holocarpa (Hoffm. ex Ach.) M. Wade [CRUSTOSE] [LIGNICOLOUS]

Rare; known only from a single collection from a wood rail fence near Putnam. Hyerczyk 339.

Caloplaca lithophila H. Magn [CRUSTOSE] [SAXICOLOUS]

Rare; known only from a single collection from dolomite at Magnolia Cemetery. Hyerczyk 1359.

Caloplaca luteominia (Tuck.) Zahlbr. var. *luteominia* [CRUSTOSE] [SAXICOLOUS]

Rare; known only from a single collection from pebbles in a gravel pit at Lake Sennachwine Preserve. Hyerczyk 39.

Caloplaca microphyllina (Tuck.) Hasse [CRUSTOSE] [LIGNICOLOUS]

Occasional; on wood rail fences near Magnolia. Hyerczyk 42.

Caloplaca sideritis (Tuck.) Zahlbr. [CRUSTOSE] [SAXICOLOUS]

Rare; known only from a single collection from granite at the Fox Run Conservation Area. Hyerczyk 1165.

Caloplaca squamosa (de Lesd.) Zahlbr. [CRUSTOSE] [SAXICOLOUS]

Occasional; on dolomite at Granville Cemetery (Hyerczyk 1353), on a marble headstone at Mount Palatine Cemetery Nature Preserve (Jones 3882) and on dolomite at Sacred Heart Cemetery (Hyerczyk 1357).

Caloplaca ulmorum (Fink) Fink [CRUSTOSE] [SAXICOLOUS]

Occasional; on marble headstones at Friends Cemetery (Hyerczyk 1354), Magnolia Cemetery (Hyerczyk 1360) and St. Joseph Cemetery (Hyerczyk 1352).

Caloplaca vitellinula (Nyl.) H. Olivier [CRUSTOSE] [SAXICOLOUS]

Occasional; on concrete near Granville (Hyerczyk 24) and on marble headstones at Mount Palatine Cemetery Nature Preserve (Jones 3881) and at Union Grove Cemetery (Hyerczyk 1356).

XANTHORIA (Fr.) Th. Fr.***Xanthoria fallax*** (Hepp.) Arnold var. *fallax* [FOLIOSE] [CORTICOLOUS]

Occasional; on *Acer negundo* near Granville. Hyerczyk 25.

***Xanthoria* sp.#1** [FOLIOSE] [SAXICOLOUS]

Occasional; on marble headstones at Magnolia Cemetery (Hyerczyk 1175) and St. Joseph Cemetery (Hyerczyk / Kierny 36).

Family **TRAPELIACEAE****PLACYNTHIELLA** Elenkin***Placynthiella uliginosa*** (Schrader) Coppins & P. James [CRUSTOSE] [TERRICOLOUS]

Rare; known only from a single collection from sand near McNabb at the Natural Lands Area with *Cladonia* spp. Hyerczyk 1344.

TRAPELIOPSIS Hertel & Gotth. Schneider***Trapeliopsis flexuosa*** (Fr.) Coppins & P. James [CRUSTOSE] [LIGNICOLOUS]

Occasional; on wood rail fences. Hyerczyk 331.

Trapeliopsis granulosa (Hoffm.) Lumbsch. [CRUSTOSE] [LIGNICOLOUS]

Rare; known only from a single collection from a wood rail fence at the Donnelly State Wildlife Area. Hyerczyk 46.

Family **VERRUCARIACEAE****ENDOCARPON** Hedwig***Endocarpon pusillum*** Hedwig [CRUSTOSE] [SAXICOLOUS]

Frequent; on concrete and dolomite throughout the county. Hyerczyk 38, 1176.

THELIDIUM A. Massal.***Thelidium microcarpum*** (Leight.) A. L. Sm. [CRUSTOSE] [SAXICOLOUS]

Rare; known only from a single collection from sandstone at the Fox Run Conservation Area. Hyerczyk 420.

VERRUCARIA Schrader***Verrucaria calkinsiana*** Servít [CRUSTOSE] [SAXICOLOUS]

Occasional; on dolomite at the Fox Run Conservation Area (Hyerczyk 330, 1163), on marble headstones at Mount Palatine Cemetery Nature Preserve (Jones 3883) and on a dolomite outcrop near Magnolia (Jones 3929).

Verrucaria muralis Ach. [CRUSTOSE] [SAXICOLOUS]

Rare; known only from a single collection from dolomite at the Fox Run Conservation Area. Hyerczyk 335.

Verrucaria sordida Servít [CRUSTOSE] [SAXICOLOUS]

Rare; known only from a single collection from pebbles in a gravel pit at Lake Sennachwine Preserve. Hyerczyk / Kierny 40.

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Table 1. List of study sites in Putnam County, Illinois. Size of study site: **HEC** = Hectares. Growth forms of lichens observed: **CRU** = crustose; **FOL** = foliose; **FRU** = fruticose. **TOTAL**: Total number of lichens found at study site.

NAME OF SITE	HEC	CRU	FOL	FRU	TOTAL
Donnelley State Wildlife Area	250.0	9	8	5	22
Fox Run Conservation Area	108.0	11	5	6	22
Friends Cemetery	0.6	3	11	0	14
George S. Park Woods Nature Preserve	32.0	8	12	2	22
Granville Cemetery	2.4	3	5	0	8
Lake Sennachwine Conservation Area	174.0	19	11	2	32
Magnolia Cemetery	1.2	7	8	0	15
Miller-Anderson Woods Nature Preserve	104.0	5	6	0	11
Mount Palatine Cemetery Nature Preserve	0.6	10	5	0	15
Natural Lands Area	109.0	16	12	10	38
Sacred Heart Cemetery	1.2	5	4	0	9
St. Joseph Cemetery	0.4	2	8	0	10
Union Grove Cemetery	0.8	4	4	0	8
miscellaneous locations	-----	1	5	0	6

Table 2. Growth Forms, Habitats and Status of the Putnam County Lichen Flora.
 GROWTH FORMS: *Cr* = crustose; *Fo* = foliose; *Fr* = fruticose.
 HABITATS: *Co* = corticolous; *Lig* = lignicolous; *Sax* = saxicolous; *Ter*
 = terricolous. Number of study sites that a lichen was observed at: *Nss*.
 Status: *Sta*. [1 site : *R* = rare; 2-4 sites: *O* = occasional; 6-10 sites: *F* =
 frequent; 11+ sites: *C* = common.]

NAME OF LICHEN	Cr	Fo	Fr	Co	Lig	Sax	Ter	Nss	Sta
Amandinea punctata	X				X			4	O
Anisomeridium nyssigenum	X			X				5	O
Arthonia caesia	X			X				7	F
Aspicilia caesiocinerea	X					X		1	R
Bacidia granosa	X					X		4	O
Bacidina egenula	X					X		4	O
Buellia dakotensis	X			X				1	R
Caloplaca feracissima	X					X		8	F
Caloplaca holocarpa	X				X			1	R
Caloplaca lithophila	X					X		1	R
Caloplaca luteominia var. luteominia	X					X		1	R
Caloplaca microphyllina	X				X			2	O
Caloplaca sideritis	X					X		1	R
Caloplaca squamosa	X					X		3	O
Caloplaca ulmorum	X					X		3	O
Caloplaca vitellinula	X					X		3	O
Candelaria concolor		X		X	X	X		14	C
Candelaria concolor var. effusa		X			X			2	O
Candelariella reflexa	X			X				1	R
Candelariella xanthostigma	X			X				2	O
Cladina subtenuis			X				X	1	R
Cladonia chlorophaea			X				X	2	O
Cladonia coniocraea			X		X			2	O
Cladonia cristatella			X		X		X	2	O
Cladonia cylindrica			X		X			2	O
Cladonia grayi			X				X	1	R
Cladonia humilis			X				X	1	R
Cladonia macilenta var. bacillaris			X		X			4	O
Cladonia peziziformis			X				X	3	O
Cladonia piedmontensis			X				X	1	R
Cladonia polycarpoides			X				X	2	O
Cladonia ramulosa			X	X				1	R
Cladonia rei			X		X		X	2	O
Cladonia subulata			X		X			1	R
Cyphelium tigillare	X				X			2	O
Endocarpon pusillum	X					X		10	F
Flavoparmelia caperata		X		X				3	O
Flavopunctelia soledica		X		X				1	R
Graphis scripta	X			X				4	O
Hyperphyscia adglutinata		X		X				3	O
Julella sericea	X			X				2	O
Lecanora dispersa	X					X		9	F
Lecanora strobilina	X				X			1	R
Lecanora symmicta	X			X				2	O
Lepraria lobificans	X			X		X		5	O
Lepraria sp. # 1	X			X				1	R

Table 2. continued

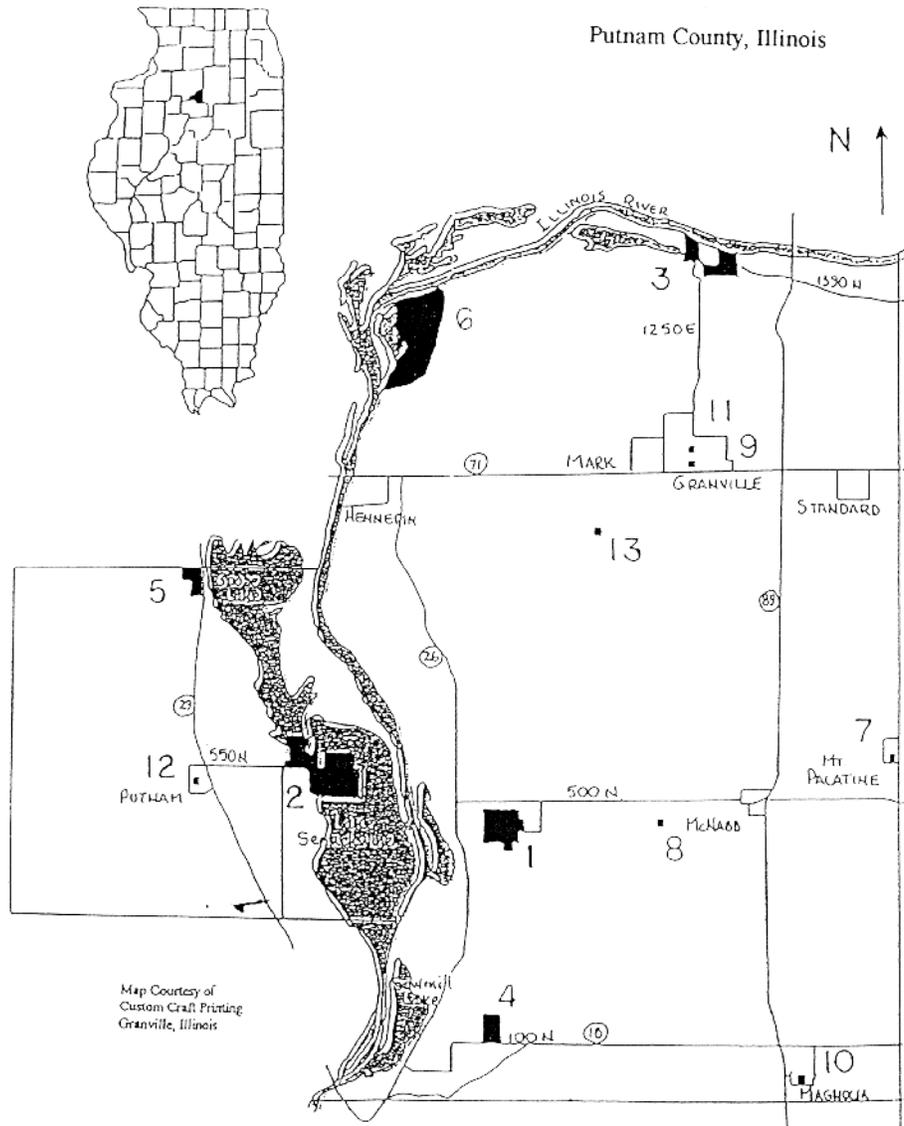
NAME OF LICHEN	Cr	Fo	Fr	Co	Lig	Sax	Ter	Nss	Sta
Lichenothelia sp.	X					X		2	O
Opegrapha atra	X			X				4	O
Parmelia sulcata		X		X				3	O
Peltigera didactyla		X					X	1	R
Pertusaria pustulata	X			X				1	R
Phaeophyscia cernohorskyi		X				X		3	O
Phaeophyscia ciliata		X				X		3	O
Phaeophyscia orbicularis		X		X				1	R
Phaeophyscia rubropulchra		X		X				6	F
Physcia adscendens		X				X		6	F
Physcia aipolia		X		X				2	O
Physcia millegrana		X		X	X			14	C
Physcia stellaris		X		X				12	C
Physciella chloantha		X		X				9	F
Physconia detersa		X		X		X		5	O
Physconia kurokawae		X		X				2	O
Placynthiella uliginosa	X						X	1	R
Punctelia bolliana		X		X				4	O
Punctelia missouriensis		X		X				2	O
Punctelia rudecta		X		X	X			5	O
Rinodina papillata	X			X				1	R
Sarcogyne regularis	X					X		1	R
Thelidium microcarpum	X					X		1	R
Thelocarpon laureri	X				X			1	R
Trapeliopsis flexuosa	X				X			2	O
Trapeliopsis granulosa	X				X			1	R
Verrucaria calkinsiana	X					X		4	O
Verrucaria muralis	X					X		1	R
Verrucaria sordida	X					X		1	R
Xanthoria fallax var. fallax		X		X				3	O
Xanthoria sp.#1		X				X		3	O

Summary of the Putnam County, Illinois lichen flora:

CRUSTOSE	40	52%
FOLIOSE	23	30%
FRUTICOSE	14	18%

TOTAL SPECIES	77	
RARE	27	35%
OCCASIONAL	40	52%
FREQUENT	7	9%
COMMON	3	4%

Figure 1. Study sites in Putnam County, Illinois.



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|--|---------------------------|
| 1. Natural Lands Area | 8. Friends Cemetery |
| 2. Lake Sennachwine Conservation Area | 9. Granville Cemetery |
| 3. Fox Run Conservation Area | 10. Magnolia Cemetery |
| 4. George Park Memorial Forest Nature Preserve | 11. Sacred Heart Cemetery |
| 5. Miller-Anderson Woods Nature Preserve | 12. St. Joseph Cemetery |
| 6. Donnelley State Wildlife Area | 13. Union Grove Cemetery |
| 7. Mount Palatine Cemetery Nature Preserve | |