

# The Macrolichens of Ohio: A Revised Checklist<sup>1</sup>

DON FLENNIKEN AND RAY E. SHOWMAN, 2273 Blachleyville Rd., Wooster, OH 44691 and 2235 Blue Rock Lane, Grove City, OH 43123

**ABSTRACT.** The current revised list of macrolichens in Ohio contains 208 species, including twenty-eight species new to Ohio during the past 20 years. Nomenclature for Ohio's known species has been revised to reflect the most recent changes. Relative abundance is given for the species listed.

OHIO J. SCI. 90 (4): 130-132, 1990

## INTRODUCTION

More than 20 years have passed since Taylor (1967, 1968) published "Lichens of Ohio." During this period, researchers have continued to revise the taxonomy of lichens and many names used by Taylor have been changed; Hale (1979) brought the nomenclature up-to-date in his manual of North American lichens. Most notable of these changes included the genera *Alectoria* (= *Bryoria*), *Anaptychia*, in part (= *Heterodermia*), *Cladonia*, in part (= *Cladina*), *Parmelia*, in part (= *Parmelina*, *Parmotrema*, *Xanthoparmelia*, and *Hypotrachyna*), and *Physcia*, in part (= *Phaeophyscia* and *Physconia*). Further changes have been adopted by Egan (1987, 1989) in a fifth checklist of U. S. and Canadian lichens. This checklist, with its revision, has brought lichen nomenclature to its current level of understanding.

In addition to changes in nomenclature, several new species have been added to the Ohio lichen flora through research and collecting by Ohio lichenologists. Extensive lichen collections have been made from the counties of Gallia, Meigs, Athens, and Washington (Showman 1973), Morgan (Showman 1975), Adams (Kaucher and Snider 1982), and Hocking (Showman 1987). Additional new Ohio species have been reported from the counties of Vinton, Monroe, and Jackson (Showman 1977), and Adams, Scioto, Wyandot, Coshocton, Licking, Hardin, and Putnam (Showman 1981).

## MATERIALS AND METHODS

The checklist that follows is compiled from the above-cited literature and is intended to bring current the macrolichen flora of Ohio. The nomenclature follows that of Egan (1987, 1989). Where generic names differ from those used by Taylor (1967, 1968), Taylor's genera are enclosed in parentheses after the currently accepted genus. Species preceded by an asterisk (\*) are new additions to Ohio's lichen flora since Taylor. Relative abundance was determined from published records and unpublished data of the authors and that of A. H. Claugus, naturalist and amateur lichenologist.

## RESULTS AND DISCUSSION

The macrolichen flora of Ohio, as currently presented, consists of 208 species; 28 new to Ohio during the past 20 years. For the purpose of this checklist relative abundance is only a measure of the counties from which Ohio species

have been reported and is not intended to imply any standardized sampling technique. Many of the uncommon, rare, and endangered/threatened species so-listed may, indeed, be the result of undercollecting in the state. The codes for relative abundance were somewhat arbitrarily chosen, but appear to represent a practical grouping within the species. These codes are based upon the following classification:

- A= Abundant; reported from 44 to 88 counties in Ohio.
- C= Common; reported from 17 to 43 counties in Ohio.
- U= Uncommon; reported from 8 to 16 counties in Ohio.
- R= Rare; reported from 3 to 7 counties in Ohio.
- E= Endangered or Threatened in Ohio; reported from only 1 or 2 counties.
- Q= Status unknown; all reports from Ohio are prior to 1950.

If the reader should find an "unlisted", "questionable" (Q), "endangered/threatened" (E), or "rare" (R) species in Ohio, please contact your local University or the authors with details.

ACKNOWLEDGEMENT. The authors wish to thank Dr. Charles C. King, Executive Director, Ohio Biological Survey for his encouragement in the development of this checklist.

TABLE 1

Checklist of Ohio macrolichens. Relative abundance abbreviations: A= Abundant, >43 counties; C= Common, 17 to 43 counties; U= Uncommon, 8 to 16 counties; R= Rare, 3 to 7 counties; E= Endangered/Threatened, <3 counties; Q= Status unknown, all reports pre-date 1950. Names preceded by (\*) are new Ohio records since 1968.

Name	(Genus used by Taylor 1967, 1968)	Relative Abundance
<i>Anaptychia</i>		
	<i>palmulata</i> (Michaux) Vainio	C
<i>Anzia</i>		
	<i>colpodes</i> (Ach.) Stizenb.	R,Q
<i>Baeomyces</i>		
	<i>absolutus</i> Tuck.	R
	<i>roseus</i> Pers.	U
<i>Bryoria</i> ( <i>Alectoria</i> )		
	<i>furcellata</i> (Fr.) Brodo & D. Hawksw.	U
<i>Candelaria</i>		
	<i>concolor</i> (Dickson) B. Stein	A
	<i>fibrosa</i> (Fr.) Müll. Arg.	U

<sup>1</sup>Manuscript received 24 January 1990 and in revised form 9 May 1990 (#90-1).

TABLE 1 (Continued)

Name	(Genus used by Taylor 1967, 1968)	Relative Abundance
<i>Canoparmelia</i> ( <i>Parmelia</i> )		
* <i>caroliniana</i> (Nyl.) Elix & Hale		E
<i>crozalsiana</i> (B. de Lesd. ex Harm.) Elix & Hale		C
* <i>texana</i> (Tuck.) Elix & Hale		E
<i>Catapyrenium</i> ( <i>Dermatocarpon</i> )		
<i>lachneum</i> (Ach.) R. Sant.		E
<i>tuckermanii</i> (Rav. ex Mont.) Thomson		R
<i>Cetraria</i>		
<i>arenaria</i> Karnef.		E
<i>Cetrelia</i> (—)		
* <i>cbicitiae</i> (Culb.) Culb. & C. Culb.)		E
<i>Cladina</i> ( <i>Cladonia</i> )		
<i>arbuscula</i> (Wallr.) Hale & Culb.		R
<i>rangiferina</i> (L.) Nyl.		C
<i>subtenuis</i> (des. Abb.) Hale & Culb.		C
<i>Cladonia</i>		
<i>apodocarpa</i> Robb.		C
<i>bacillaris</i> Nyl.		C
<i>caespiticia</i> (Pers.) Flörke		C
<i>caroliniana</i> Schwein. ex Tuck.		U
<i>cervicornis</i> (Ach.) Flotow		A
<i>chlorophaea</i> (Flörke ex Sommerf.) Sprengel		C
<i>coniocraea</i> auct.		A
<i>crisatella</i> Tuck.		A
<i>cryptochlorophaea</i> Asah.		C
<i>cylindrica</i> (A. Evans) A. Evans		C
<i>fimbriata</i> (L.) Fr.		C
<i>floridana</i> Vainio		E
<i>furcata</i> (Huds.) Schrader		A
<i>grayi</i> G. K. Merr. ex Sandst.		C
<i>humilis</i> (With.) Laundon		C
<i>incrassata</i> Flörke		R
<i>macilenta</i> Hoffm.		U
<i>mateocyatha</i> Robb.		R
<i>ochrochlora</i> Flörke		E
<i>parasitica</i> (Hoffm.) Hoffm.		C
<i>peziziformis</i> (With.) Laundon		A
<i>piedmontensis</i> G. K. Merr.		C
<i>pleurota</i> (Flörke) Schaerer		C
<i>polycarpoides</i> Nyl.		A
<i>pyxidata</i> (L.) Hoffm.		C
<i>ramulosa</i> (With.) Laundon		R
<i>rei</i> Schaerer		C
<i>robbinsii</i> A. Evans		R
<i>sobolescens</i> (Nyl.) Vainio		C
<i>squamosa</i> (Scop.) Hoffm.		C
<i>strepilis</i> (Ach.) Vainio		C
<i>uncialis</i> (L.) Weber ex Wigg.		R
<i>Coccocarpia</i>		
<i>palmicola</i> (Sprengel) Arvidsson & D. Galloway		R
<i>Collema</i>		
<i>bachmanianum</i> (Fink) Degel.		E,Q
<i>coccophorum</i> Tuck.		E,Q
<i>conglomeratum</i> Huffm.		R
<i>crispum</i> (Huds.) Weber ex Wigg.		E
<i>fragrans</i> (Sm.) Ach.		E,Q
<i>furfuraceum</i> (Arnold) Du Rietz		U
<i>nigrescens</i> (Huds.) DC		U
<i>polycarpon</i> Hoffm.		E,Q
<i>subflaccidum</i> Degel.		C
<i>tenax</i> (Swartz) Ach.		U
<i>Dermatocarpon</i>		
<i>luridum</i> (With.) Laundon		C
<i>miniatum</i> (L.) Mann		C
<i>Dirinaria</i> (—)		
* <i>frostii</i> (Tuck.) Hale & Culb.		R
<i>Ephebe</i>		
<i>lanata</i> (L.) Vainio		E,Q
<i>Evernia</i>		
<i>mesomorpha</i> Nyl.		R
<i>Flavoparmelia</i> ( <i>Parmelia</i> )		
* <i>baltimorensis</i> (Gyelnik & Foriss) Hale		C <sup>a</sup>

TABLE 1 (Continued)

Name	(Genus used by Taylor 1967, 1968)	Relative Abundance
<i>caperata</i> (L.) Hale		A
<i>Flavopunctelia</i> ( <i>Parmelia</i> )		
<i>flaventior</i> (Stirton) Hale		C
<i>soredica</i> (Nyl.) Hale		C
<i>Heterodermia</i> ( <i>Anaptychia</i> )		
* <i>albicans</i> (Pers.) Swinscow & Krog		E
* <i>casarettiana</i> (Massal.) Trevisan		E
<i>echinata</i> (Taylor) Culb.		U
<i>granulifera</i> (Ach.) Culb.		C
<i>hypoleuca</i> (Muhl.) Trevisan		C
<i>leucomelos</i> (L.) Poelt		U
<i>obscurata</i> (Nyl.) Trevisan		C
<i>speciosa</i> (Wulfen) Trevisan		C
* <i>squamulosa</i> (Degel.) Culb.		E
<i>Hyperphyscia</i> ( <i>Physcia</i> )		
<i>adglutinata</i> (Flörke) Mayrh. & Poelt		U
<i>syncolla</i> (Tuck. ex Nyl.) Kalb		C
<i>Hypogymnia</i>		
<i>physodes</i> (L.) Nyl.		U
<i>Hypotrachyna</i> ( <i>Parmelia</i> )		
<i>livida</i> (Taylor) Hale		C
* <i>shoumanii</i> Hale		R
<i>Imshaugia</i> ( <i>Parmeliopsis</i> )		
<i>aleurites</i> (Ach.) S. F. Meyer		U
<i>placorodia</i> (Ach.) S. F. Meyer		R
<i>Lasallia</i>		
<i>papulosa</i> (Ach.) Llano		U
<i>pennsylvanica</i> (Hoffm.) Llano		E,Q
<i>Leptogium</i>		
<i>austroamericanum</i> (Malme) Dodge		E
<i>burnetiae</i> Dodge		R
<i>corticola</i> (Taylor) Tuck.		U
<i>cyanescens</i> (Rabenh.) Korber		C
<i>dactylinum</i> Tuck.		R
<i>juniperinum</i> Tuck.		U
<i>lichenoides</i> (L.) Zahlbr.		C
<i>milligranum</i> Sierk		R
<i>minutissimum</i> (Flörke) Fr.		E
<i>tenuissimum</i> (Dickson) Korber		E
<i>Lobaria</i>		
<i>pulmonaria</i> (L.) Hoffm.		U
<i>quercizans</i> Michaux		C
<i>Melanelia</i> ( <i>Parmelia</i> )		
<i>exasperata</i> (de Not.) Essl.		R
<i>subargentifera</i> (Nyl.) Essl.		E,Q
<i>subaurifera</i> (Nyl.) Essl.		C
<i>Menegazzia</i>		
<i>terebrata</i> (Hoffm.) Massal.		E,Q
<i>Myelochroa</i> ( <i>Parmelia</i> )		
<i>aurulenta</i> (Tuck.) Elix & Hale		A
<i>galbina</i> (Ach.) Elix & Hale		C
<i>obsessa</i> (Ach.) Elix & Hale		R
<i>Nephroma</i>		
<i>belviticum</i> Ach.		R,Q
<i>Pannaria</i>		
<i>leucophaea</i> (Vahl) P. Jørg.		E
<i>leucosticta</i> (Tuck. in Darl.) Tuck. ex Nyl.		E,Q
<i>lurida</i> (Mont.) Nyl.		R
<i>rubiginosa</i> (Ach.) Bory		E,Q
<i>Parmelia</i>		
<i>saxatilis</i> (L.) Ach.		— <sup>b</sup>
* <i>squarrosa</i> Hale		C
<i>sulcata</i> Taylor		A
<i>Parmelinopsis</i> ( <i>Parmelia</i> )		
<i>horrescens</i> (Taylor) Elix & Hale		E
<i>minarum</i> (Vainio) Elix & Hale		U
<i>Parmotrema</i> ( <i>Parmelia</i> )		
* <i>arnoldii</i> (Du Rietz) Hale		E
<i>cetratum</i> (Ach.) Hale		R
<i>chinense</i> (Osbeck) Hale & Ahti		R
<i>crinitum</i> (Ach.) M. Choisy		R
<i>hypotropum</i> (Nyl.) Hale		C

TABLE 1 (Continued)

Name	(Genus used by Taylor 1967, 1968)	Relative Abundance
<i>madagascariaceum</i> (Hue) Hale		E
<i>margaritatum</i> (Hue) Hale		R
<i>micbauxianum</i> (Zahlbr.) Hale		R
<i>perforatum</i> (Jacq.) Massal.		U
<i>reticulatum</i> (Taylor) M. Choisy		C
<i>stuppeum</i> (Taylor) Hale		U
* <i>subsidiosum</i> (Müll. Arg.) Hale		E
* <i>subtinctorium</i> (Zahlbr.) Hale		R
* <i>xanthinum</i> (Müll. Arg.) Hale		R
<i>Peltigera</i>		
<i>apthosa</i> (L.) Willd.		R,Q
<i>canina</i> (L.) Willd.		A
<i>didactyla</i> (With.) Laundon		U
* <i>elisabethae</i> Gyelnik		E
<i>evansiana</i> Gyelnik		U
<i>horizontalis</i> (Huds.) Baumg.		U
<i>polydactyla</i> (Necker) Hoffm.		U
<i>praetextata</i> (Flörke ex Sommerf.) Zopf		U
<i>Phaeophyscia</i> ( <i>Physcia</i> )		
<i>adiastola</i> (Essl.) Essl.		- <sup>c</sup>
* <i>cernoborskyi</i> (Nadv.) Essl.		- <sup>c</sup>
* <i>ciliata</i> (Hoffm.) Moberg		- <sup>d</sup>
<i>endococcina</i> (Korber) Moberg		U
* <i>hirtella</i> Essl.		C
* <i>hispidula</i> (Ach.) Moberg		E
<i>imbracata</i> (Vainio) Essl.		U
<i>leana</i> (Tuck.) Essl.		E,Q
<i>orbicularis</i> (Necker) Moberg		E
* <i>pussiloides</i> (Zahlbr.) Essl.		E
<i>rubropulchra</i> (Degel.) Moberg		- <sup>c</sup>
<i>Physcia</i>		
<i>adscendens</i> (Fr.) H. Oliver		C
<i>aipolia</i> (Ehrh. ex Humb.) Furnr.		A
<i>americana</i> G. K. Meyer		A
* <i>caesia</i> (Hoffm.) Furnr.		E
<i>halei</i> Thomson		E
<i>millegrana</i> Degel.		A
* <i>phaea</i> (Tuck.) Thomson		E
<i>stellaris</i> (L.) Nyl.		A
<i>subtilis</i> Degel.		R
<i>Physciella</i> (—)		
* <i>chloantha</i> (Ach.) Essl.		R
<i>Physconia</i> ( <i>Physcia</i> )		
<i>detersa</i> (Nyl.) Poelt		A
<i>distorta</i> (With.) Laundon		U
<i>Platismatia</i> ( <i>Cetraria</i> )		
<i>tuckermantii</i> (Oakes) Culb. & C. Culb.		R
<i>Pseudevernia</i> (—)		
* <i>consocians</i> (Vainio) Hale & Culb.		E
<i>Pseudocyphellaria</i>		
<i>aurata</i> (Ach.) Vainio		E,Q
<i>Punctelia</i> ( <i>Parmelia</i> )		
<i>bolliana</i> (Müll. Arg.) Krog		A
<i>borreri</i> (Sm.) Krog		C
* <i>perreticulata</i> (Rasanen) Wilhelm & Ladd		E
<i>rudecta</i> (Ach.) Krog		A
<i>subrudecta</i> (Nyl.) Krog		A
<i>Pycnothelia</i>		
<i>papillaria</i> Dufour		R
<i>Pyxine</i>		
<i>caesioprutinosa</i> (Nyl.) Imsh.		C
<i>sorediata</i> (Ach.) Mont.		C
<i>Ramalina</i>		
<i>americana</i> Hale		U
<i>celastri</i> (Sprengel) Krog & Swinscow		U,Q
<i>complanata</i> (Swartz) Ach.		R,Q
<i>farinacea</i> (L.) Ach.		U
<i>intermedia</i> (Delise ex Nyl.) Nyl.		R
* <i>petrina</i> Bowler & Rundel		R
<i>pollinaria</i> (Westr.) Ach.		R
<i>roesleri</i> (Hochst. ex Schaerer) Hue		E
<i>Stereocaulon</i>		

TABLE 1 (Continued)

Name	(Genus used by Taylor, 1967, 1968)	Relative Abundance
<i>saxatile</i> Magnusson		R,Q
<i>tomentosum</i> Fr.		E,Q
<i>Sticta</i>		
<i>weigeltii</i> (Ach.) Vainio		R
<i>Teloschistes</i>		
<i>chrysophthalmus</i> (L.) Th. Fr.		E,Q
<i>Tuckermannopsis</i> ( <i>Cetraria</i> )		
<i>americana</i> (Sprengel) Hale		E
<i>aurescens</i> (Tuck.) Hale		R
<i>ciliaris</i> (Ach.) Gyelnik		U
<i>fendleri</i> (Nyl.) Hale		R
<i>oakesiana</i> (Tuck.) Hale		R
* <i>viridis</i> (Schwein. in Halsey) Hale		E
<i>Umbilicaria</i>		
<i>mammulata</i> (Ach.) Tuck.		R
<i>muehlenbergii</i> (Ach.) Tuck.		E,Q
<i>vellea</i> (L.) Ach.		E,Q
<i>Usnea</i>		
<i>angulata</i> Ach.		E,Q
<i>ceratina</i> Ach.		R,Q
<i>longissima</i> Ach.		E,Q
<i>mutabilis</i> Stirton		R
<i>strigosa</i> (Ach.) A. Eaton		U
<i>subfloridana</i> Stirton		E,Q
<i>Xanthoparmelia</i> ( <i>Parmelia</i> )		
<i>conspersa</i> (Ehrh. ex Ach.) Hale		U
* <i>cumberlandia</i> (Gyelnik) Hale		R
* <i>hypomelaena</i> (Hale) Hale		E
<i>plittii</i> (Gyelnik ex D. Dietr.) Hale		U
<i>subramigera</i> (Gyelnik) Hale		E
<i>taractica</i> (Krempelh.) Hale		R
<i>Xanthoria</i>		
<i>elegans</i> (Link) Th. Fr.		E
<i>fallax</i> (Hepp in Arnold) Arnold		A
<i>polycarpa</i> (Hoffm.) Rieber		U

<sup>a</sup> *F. baltimorensis* was lumped with *F. caperata* in Taylor's treatment.

<sup>b</sup> All Ohio material identified as *P. saxatilis* in Taylor is now thought to be *P. squarrosa* (see Hale 1987).

<sup>c</sup> Part of the *P. orbicularis* complex not separated by Taylor.

<sup>d</sup> Locality records in Taylor's treatment include *P. hirtella*.

## LITERATURE CITED

- Egan, R. S. 1987 A fifth checklist of the lichen-forming, lichenicolous and allied fungi of the Continental United States and Canada. *Bryologist* 90: 77-173.
- 1989 Changes to the "Fifth Checklist of the Lichen-Forming, Lichenicolous and Allied Fungi of the Continental United States and Canada." Edition I. *Bryologist* 92: 68-72.
- Hale, M. E., Jr. 1979 How to know the lichens, 2nd ed. Wm. C. Brown Co., Dubuque, Iowa. 246 p.
- 1987 A monograph of the lichen genus *Parmelia* Acharius sensu stricto (Ascomycotina: Parmeliaceae). Smithsonian Contributions to Botany No. 66.
- Kaucher, P. R., Jr. and J. A. Snider 1982 The macrolichen flora of five Adams County nature preserves. *Ohio J. Sci.* 82: 302-305.
- Showman, R. E. 1973 The foliose and fruticose lichen flora of the Ohio River Valley between Gallipolis, Ohio and Parkersburg, West Virginia. *Ohio J. Sci.* 73: 357-363.
- 1975 The foliose and fruticose lichen flora around the Muskingum River Power Plant, Morgan County, Ohio. *Ohio J. Sci.* 75: 33-35.
- 1977 Additions to the lichen flora of Ohio. *Ohio J. Sci.* 77: 26-27.
- 1981 Additions to the lichen flora of Ohio-II. *Ohio J. Sci.* 81: 178-179.
- 1987 Macrolichen flora of Crane Hollow, Hocking County, Ohio. *Ohio J. Sci.* 87: 27-29.
- Taylor, C. J. 1967 Lichens of Ohio-Part I. Foliose Lichens. *Ohio Biol. Surv. Biol. Notes* No. 3.
- 1968 Lichens of Ohio-Part II. Fruticose Lichens. *Ohio Biol. Surv. Biol. Notes* No. 4.