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*BRIEF NOTE*THE MACROLICHEN FLORA OF FIVE ADAMS COUNTY NATURE PRESERVES¹

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Adams County, Ohio, well known for the vegetational and floristic diversity of its vascular plants (Braun 1928a, 1928b, 1950), also supports a rich macrolichen flora. Ninety-eight (49%) of the 202 taxa of foliose and fruticose lichens recorded for Ohio occur in Adams County (Taylor 1967, 1968, Hale 1976, Showman 1973, 1977, 1981, Esslinger 1977a, 1977b, 1978a), thus distinguishing Adams County as containing the highest number of macrolichen taxa in the state. The greatest macrolichen diversity occurs in that portion of eastern Adams County described by Braun (1950) as forming a portion of the Knobs Border vegetational area of the Mixed Mesophytic Forest Region. This area, formed from a portion of the Unglaciated Appalachian Plateau from the

east, and a northern extension of the Bluegrass section of the Interior Low Plateau from the west, encompasses a varied topography and geology. Dolomitic bluffs and promontories, up to 23 m high, are scattered throughout. The lower portions of forested slopes, consisting of Silurian calcareous shales, are overlain by Devonian non-calcareous black shales. Many of the higher conical-shaped hills are capped with non-calcareous shales and sandstones from the Mississippian. Elevation in this region ranges from 150 m to 383 m (ave. relief ca. 152 m) and provides some of the greatest topographic relief in Ohio (ca. 230 m). Braun (1928a) has described some 37 distinct vascular plant communities from this region, including a number of edaphic and relict communities. Oak barrens, oak-blueberry associations, cedar barrens, pine communities, relict prairie communities, relict arbor vitae stands, beech-hemlock

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associations, and a variety of xeric and mesic cliff communities are found here.

The combination of sharp topographical relief, complex geology, and diverse vascular plant communities in eastern Adams County provides a wide range of habitats capable of supporting a rich macrolichen flora. Earlier collections from Adams County include those by W. A. Kellerman, Bruce Fink, E. Lucy Braun, Margaret Fulford, J.N. Wolfe, C. J. Taylor (Braun 1928a, Taylor 1967, 1968) and R. E. Showman (Showman 1981).

The Cincinnati Museum of Natural History, with the aid of The Nature Conservancy, owns 5 natural areas in eastern Adams County. These 5 preserves, The Wilderness, Lynx Prairie, Buzzardroost Rock, Red Rock, and Abner Hollow, encompass approximately 900 ha of the geological and vegetational diversity typical of this region. A coal-fired power generating station is currently under construction at

the mouth of Ohio Brush Creek, approximately 5 km upwind from the preserves. The potential effects of airborne pollution on the preserves from this source once it becomes operational is high. Thus, a survey of the macrolichen flora of these preserves was undertaken at the request of the Museum to provide baseline data prior to the plant becoming operational.

A total of 97 macrolichen taxa are recorded from the preserves (table 1) including 7 taxa new to the Ohio flora and 29 taxa new to Adams County. The Ohio macrolichen flora now totals 209 taxa, of which 126 taxa (60%) occur in Adams County and 97 taxa (46%) occur within the 900 ha comprising the 5 preserves.

All of the taxa cited were collected by the authors and voucher specimens are on deposit in the herbarium of the University of Cincinnati (CINC). Nomenclature follows Esslinger (1978b) and Hale (1979).

TABLE 1
Macrolichen species distribution by preserve.

Taxa	TW	LP	BR/RR	AH
<i>Anaptychia palmulata</i> (Michx.) Vain.	X			
<i>Baeomyces fungoides</i> (Sw.) Ach.	X			
<i>Candelaria concolor</i> (Dicks.) Stein.	X	X	X	X
<i>Cetraria aurescens</i> Tuck.*	X	X	X	
<i>Cetraria ciliaris</i> Ach.	X	X	X	
<i>Cetraria fendleri</i> (Nyl.) Tuck.	X		X	X
<i>Cetraria halei</i> Culb.*	X	X	X	
<i>Cladina rangiferina</i> (L.) Harm.		X		
<i>Cladina subtenuis</i> (Abb.) Hale & Culb.	X	X	X	X
<i>Cladonia apodocarpa</i> Robb.	X		X	X
<i>Cladonia bacillaris</i> (Ach.) Nyl.	X	X		X
<i>Cladonia caespiticia</i> (Pers.) Flk.	X	X		
<i>Cladonia capitata</i> (Michx.) Spreng.	X		X	X
<i>Cladonia caroliniana</i> (Schwein.) Tuck.	X		X	
<i>Cladonia coniocraea</i> (Flk.) Spreng.	X	X	X	
<i>Cladonia cristatella</i> Tuck.	X	X	X	X
<i>Cladonia cryptochlorophaea</i> Asah.	X	X		
<i>Cladonia cylindrica</i> (Evans) Evans		X		
<i>Cladonia furcata</i> (Huds.) Schrad.	X	X	X	X
<i>Cladonia grayi</i> Merr.	X	X		X
<i>Cladonia incrassata</i> Flk.	X		X	X
<i>Cladonia mateocyatha</i> Robb.	X		X	X
<i>Cladonia ochrochlora</i> Flk.**		X		
<i>Cladonia parasitica</i> (Hoffm.) Hoffm.				X
<i>Cladonia piedmontensis</i> Merr.		X	X	X

TABLE 1 *Continued*

Taxa	TW	LP	BR/RR	AH
<i>Cladonia polycarpoides</i> Nyl.		X	X	X
<i>Cladonia squamosa</i> (Scop.) Hoffm.		X		X
<i>Cladonia strepsilis</i> (Ach.) Vain.		X		
<i>Cladonia verticillata</i> (Hoffm.) Schaer.	X	X	X	X
<i>Collema coccophorum</i> Tuck.		X		X
<i>Collema conglomeratum</i> Hoffm.	X	X		
<i>Dermatocarpon fluviatile</i> (G. Web.) Th. Fr.*	X		X	X
<i>Dermatocarpon tuckermannii</i> (Rav.) Zahlbr.*	X			
<i>Dermatocarpon miniatum</i> (L.) Mann.	X		X	X
<i>Heterodermia casarettiana</i> (Mass.) Trev.**	X			
<i>Heterodermia granulifera</i> (Ach.) W. Culb.*		X	X	
<i>Heterodermia hypoleuca</i> (Ach.) Trev.*	X			
<i>Heterodermia obscurata</i> (Nyl.) Trev.	X	X	X	X
<i>Heterodermia speciosa</i> (Wulf.) Trev.	X	X	X	X
<i>Heterodermia squamulosa</i> (Degel.) W. Culb.**			X	
<i>Hypogymnia physodes</i> (L.) Nyl.*			X	
<i>Hypotrachyna livida</i> (Tayl.) Hale	X	X	X	
<i>Hypotrachyna showmanii</i> Hale*	X		X	X
<i>Leptogium austroamericanum</i> (Malme) Dodge*	X			
<i>Leptogium burnetiae</i> Dodge*	X			
<i>Leptogium cyanescens</i> (Ach.) Korb.	X	X	X	X
<i>Leptogium dactylinum</i> Tuck.				X
<i>Leptogium lichenoides</i> (L.) Zahlbr.	X			X
<i>Leptogium millegranum</i> Sierk	X			
<i>Melanelia subaurifera</i> (Nyl.) Essl.*	X	X		X
<i>Parmelia bolliana</i> Muell. Arg.*	X		X	X
<i>Parmelia borveri</i> (Sm.) Turn.	X	X		X
<i>Parmelia perreticulata</i> (Ras.) Hale**	X	X		X
<i>Parmelia rufecta</i> Ach.	X	X	X	X
<i>Parmelia squarrosa</i> Hale**	X	X	X	X
<i>Parmelia subrudefecta</i> Nyl.	X	X	X	X
<i>Parmelia sulcata</i> Tayl.*	X	X	X	
<i>Parmelina aurulenta</i> (Tuck.) Hale	X	X	X	X
<i>Parmelina dissecta</i> (Nyl.) Hale	X	X	X	X
<i>Parmelina galbina</i> (Nyl.) Hale	X	X	X	X
<i>Parmeliopsis aleurites</i> (Ach.) Nyl.*	X	X	X	
<i>Parmeliopsis placorodia</i> (Ach.) Nyl.*	X	X	X	X
<i>Parmotrema hypotropum</i> (Nyl.) Hale	X	X	X	X
<i>Parmotrema perforatum</i> (Jacq.) Hale	X			
<i>Parmotrema perlatum</i> (Huds.) Choisy	X		X	
<i>Parmotrema reticulatum</i> (Tayl.) Choisy	X		X	X
<i>Parmotrema subiinctorum</i> (Zahlbr.) Hale			X	
<i>Peltigera canina</i> (L.) Willd.	X	X	X	
<i>Peltigera elisabethae</i> Gyeln.**	X			
<i>Peltigera evansiana</i> Gyeln.*		X		
<i>Peltigera praetextata</i> (Somm.) Vain.	X	X		
<i>Phaeophyscia adiostola</i> (Essl.) Essl.			X	X
<i>Phaeophyscia cernohorskyi</i> (Nadv.) Essl.		X		X
<i>Phaeophyscia imbricata</i> (Vain.) Essl.*	X	X	X	X
<i>Phaeophyscia orbicularis</i> (Neck.) Moberg	X			
<i>Phaeophyscia pusilloides</i> (Zahlbr.) Essl.			X	X
<i>Phaeophyscia rubropulchra</i> (Degel.) Essl.	X	X	X	X
<i>Physcia aipolia</i> (Ehrh.) Hampe	X	X	X	
<i>Physcia americana</i> Merr.	X	X	X	X
<i>Physcia chloantha</i> Ach.*		X		X
<i>Physcia millegrana</i> Degel.	X	X	X	X
<i>Physcia stellaris</i> (L.) Nyl.	X		X	
<i>Physconia detersa</i> (Nyl.) Poelt	X		X	

TABLE 1 *Continued*

Taxa	TW	LP	BR/RR	AH
<i>Platismatia tuckermanii</i> (Oakes) Culb. & Culb.*	X	X	X	
<i>Pseudoparmelia baltimorensis</i> (Byel. & For.) Hale*	X		X	
<i>Pseudoparmelia caperata</i> (L.) Hale	X	X	X	X
<i>Pseudoparmelia caroliniana</i> (Nyl.) Hale**	X			X
<i>Pseudoparmelia crozalsiana</i> (Leds.) Hale*	X	X	X	X
<i>Pseudoparmelia texana</i> (Tuck.) Hale	X		X	
<i>Pyxine caesiopruinosa</i> (Nyl.) Imsh.	X	X	X	X
<i>Pyxine sorediata</i> (Ach.) Mont.	X	X	X	X
<i>Ramalina</i> sp.	X			X
<i>Usnea strigosa</i> (Ach.) Eaton	X	X	X	
<i>Usnea mutabilis</i> Stirt.	X	X	X	
<i>Xanthoparmelia cumberlandia</i> (Gyeln.) Hale*				X
<i>Xanthoparmelia plittii</i> (Gyeln.) Hale				X
<i>Xanthoria fallax</i> (Hepp.) Arn.		X		X

*county record

**state record

TW = The Wilderness

LP = Lynx Prairie

BR/RR = Buzzardroost Rock/
Red Rock

AH = Abner Hollow

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