

NEWSLETTER of THE OHIO MOSS AND LICHEN ASSOCIATION

Issue 2

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Don Flenniken, Editor

OBELISK



Photo by Roger Troutman

Inspired by the Memorial Stone of William Starling Sullivant (Father of American Bryology), the OBELISK represents Ohio Bryophytes et Lichens: Identification, Species, Knowledge.



Photo by Bob Klips



PARTICIPANTS IN THE FALL 2005 MOSS/LICHEN FORAY

1. Sarah Harrelson
2. Rebecca Ewing
3. David Dister
4. Vikas Malik
5. Cheryl Coon
6. Bob Klips
7. Diane Lucas
8. Jim Toppin
9. Barb Andreas
10. Mark Zloba
11. Janet Traub
12. Don Flenniken
13. Ray Showman

LEFTHAND CORNER

The introduction of new techniques has always resulted in numerous name-changes in lichen (and other) classification; the microscope in the beginning of the 19th Century; the use of chemistry and thin-layer chromatography in the 1950s and 1960s; and about 10 years ago, the development of DNA sequencing.

When I first became interested in lichens in 1960 it seemed that most species fell into the genera *Parmelia*, *Physcia*, *Cladonia*, *Lecanora*, or *Lecidea*. Since then, the genus *Parmelia* (in the broad sense) has been segregated into 12-15 separate genera, *Physcia* has become 8 – 10 different genera, *Lecanora* and *Lecidea* have been segregated into 15 – 20 genera, each. Only *Cladonia* seems to have survived with little change except for *Cladina* and *Pycnothelia*.

Now, even these “new” genera are receiving close examination by the experts of DNA analysis.

In the list of lichens presented elsewhere, two such genera have just recently undergone name changes. *Xanthomendoza* is now a segregate from *Xanthoria* and *Melanelixia* (and *Melanohalia*) have become segregates from *Melanelia* (which in itself was a segregate from the original *Parmelia* genus).

If you think this is a problem in keeping up with current names, think what it must be like for museum curators to face the nightmare of changing names in their herbarium specimens.

Ah, progress!



OMLA MIDWINTER MEETING

The next OMLA activity will be indoors: a midwinter lab workshop on Saturday, January 21, 2006 at OSU-Marion, hosted by Bob Klips. The setting is a comfortable biology teaching lab with space, including microscope setups, for up to 20 people. There are two “themes” planned for the get-together:

1) In the morning, we'll focus on introductory techniques for anyone who wants to get started using keys, get practice with scopes, and learn terminology. Consider bringing a friend who's eager to take up bryology or lichenology.

2) During the afternoon, we'll share especially challenging specimens from our respective studies, and hopefully pin down some tough ID's with each other's help. Bring along your most interesting specimens to share and puzzle over.

(Note: Bob K. and Tara Poling have a slew of intriguing mosses and liverworts from the nearly-complete Hocking County “Deep Woods” bryophyte inventory, that they're especially eager to have “second opinions” about. This afternoon's collaborative effort could be very helpful on that project, and will be much appreciated!)

Bob Klips

Unfading as motionless, the worm frets them not, and the autumn wastes not. Strong in lowness, they neither blanch in heat nor pine in frost. To them, slow-fingered, constant-hearted, is entrusted the weaving of the dark, eternal tapestries of the hills; to them, slow-pencilled, iris-dyed, the tender framing of their endless imagery. Sharing the stillness of the unimpassioned rock, they share also its endurance, and where the winds of departing spring scatter the white hawthorn blossoms like drifted snow, and summer dims on the parched meadow the drooping of the cowslip gold, far above, among the mountains, the silver lichen-spots rest star-like on the stone; and the gathering orange stain upon the edge of the western peak reflects the sunset of a thousand years. —COMMON AND CONSPICUOUS LICHENS OF NEW ENGLAND. R. H. Howe. 1906. [p. 5]

Ohio Moss and Lichen Association – 2005 Fall Foray Sites

The 2005 Fall Foray of the Ohio Moss and Lichen Association was based in Jackson, Ohio with field trips to Lake Vesuvius in the Wayne National Forest (Lawrence County), and to the Canter's Cave 4-H Camp (Jackson County). Both sites lie in the Western Allegheny Plateau ecoregion of Ohio and have Pennsylvanian age bedrock.

The sites visited by the OMLA group at Lake Vesuvius contained a variety of habitats including moist, shaded sandstone grading to dry, sunny sandstone exposures. Also present were moist to dry soil and open, mixed hardwood forest. One interesting site was an old macadam parking lot, abandoned for perhaps 10-15 years. This has become colonized with a variety of soil lichens and mosses. Judy Dumke, a local naturalist who suggested visiting the site, calls it the "asphalt alvar."

The group recorded a total of 46 macrolichen species. Of these, 17 were new records for Lawrence County, and one was a new location record for the state threatened lichen *Dibeais absoluta*. The foray also recorded 10 species of crustose lichens, helping to add to Ohio's growing list.

Canter's Cave 4-H Camp, visited the second day contained open grown trees in a large picnic area, mixed hardwood forest, various soil habitats, and moist to dry sandstone outcrops. This site is one of the few locations in Ohio for the bigleaf magnolia tree (*Magnolia macrophylla*). A total of 44 macrolichens and 12 crustose species were recorded. There were new Jackson County records for 9 of the macrolichens, with one new record for the state threatened *Canoparmelia texana*. Another state threatened species, *Ramalina petrina*, was confirmed to be still extant at this known location for the species.

A new feature was added to this foray as a means of promoting the transfer of knowledge between the moss and lichen people. A single common moss and lichen species was highlighted, so that participants could start to learn outside of their primary area of interest. Ray Showman introduced *Physcia millegrana*, the mealy rosette lichen. This is a small, gray foliose lichen that is probably the most common lichen in the state, recorded from all 88 counties. Barb Andreas taught us the interesting moss *Pogonatum pennsylvanicum*. This is a common woodland species usually found on exposed soil in shaded, disturbed areas. This feature will continue in future forays and hopefully will result in new interest in both bryophytes and lichens.

Ray E. Showman

Macrolichens Recorded at Lake Vesuvius,
Wayne National Forest
Lawrence County, Ohio. October 1, 2005

Candelaria concolor	N	
Canoparmelia crozalsiana		
Cladonia subtenuis		
Cladonia apodocarpa	N	
C. cervicornis	N	
C. coniocraea		
C. cristatella		
C. furcata	N	
C. grayi	N	
C. incrassata	N	
C. macilentata	N	V
C. peziziformis		
C. polycarpoides	N	
C. ramulosa	N	V
C. squamosa		
<i>Dibeais absoluta*</i>	N	V
Flavoparmelia baltimorensis		
F. caperata		
Heterodermia obscurata		
H. speciosa		
Leptogium cyanescens		V
L. juniperinum	N	V
Myelochroa aurulenta		
M. galbina		
Parmelia sulcata		
Parmelinopsis minarum		
Parmotrema hypotropum		
P. stuppeum		
Peltigera canina		
P. polydactylon	N	
Phaeophyscia adiaetola		
P. rubropulchra		
Physcia aipolia	N	V
P. americana		
P. millegrana		
Physconia detersa		
P. leucoleptes	N	
Punctelia missouriensis	N	
P. rudecta		
P. subrudecta	N	
Pyxine soorediata		
P. subcinerea		
Rimelia reticulata		
Usnea strigosa		
Xanthoparmelia conspersa	V	
X. plittii		V

N - New record for Lawrence County.

V - Voucher specimen at the Wayne N. F. Office, unless otherwise noted.

* State Threatened. Found on shaded sandstone boulder along trail to old parking lot.

**Macrolichens Recorded at Canter's Cave 4-H
Camp
Jackson County, Ohio. October 2, 2005**

<i>Candelaria concolor</i>	N	
<i>Canoparmelia crozalsiana</i>		
<i>C. texana*</i>	N	V
(OSU)		
<i>Cladina rangiferina</i>		
<i>C. subtenuis</i>		
<i>Cladonia furcata</i>		
<i>C. apodocarpa</i>	N	
<i>C. coniocraea</i>	N	
<i>C. peziziformis</i>		
<i>C. squamosa</i>		
<i>Flavoparmelia baltimorensis</i>		
<i>F. caperata</i>		
<i>Heterodermia obscurata</i>		
<i>H. speciosa</i>		
<i>Hypotrachyna livida</i>		
<i>H. showmanii</i>		V (OSU)
<i>Inshaugia aleurites</i>		
<i>Lasallia papulosa</i>		
<i>Leptogium cyanescens</i>		
<i>Melanelixia subaurifera</i>		
<i>Myelochroa aurulenta</i>		
<i>Parmelia squarrosa</i>		
<i>P. sulcata</i>		
<i>Parmelinopsis minarum</i>		
<i>Parmotrema hypotropum</i>		
<i>P. stuppeum</i>		
<i>Phaeophyscia adiaetola</i>	N	V (DGF)
<i>P. pusilloides</i>	N	
<i>P. rubropulchra</i>		
<i>Physcia aipolia</i>	N	V (DGF)
<i>P. americana</i>		
<i>P. millegrana</i>		
<i>P. subtilis</i>		
<i>Physconia detersa</i>		
<i>Punctelia rudecta</i>		
<i>P. subrudecta</i>		
<i>Pyxine soredata</i>		
<i>P. subcinerea</i>		
<i>Ramalina petrina**</i>		V (DGF)
<i>Usnea subscabrosa</i>		V (DGF)
<i>Xanthomendoza fallax</i>	N	V (DGF)
<i>X. fulva</i>	N	V (DGF)
<i>Xanthoparmelia conspersa</i>		
<i>X. plittii</i>		

* State Threatened, new record. **State Threatened, confirmed existing record.
N – New record for Jackson County
V – Voucher collected for OSU or D. G. Flenniken.

CRUSTOSE SPECIES

Ohio's crustose species have not been enumerated since A Catalog of the Lichens of Ohio (Wolfe 1940) and Lichens of Ohio (Taylor 1967). Only Wolfe gave county locations. Wetmore (1986) reported the crustose species found in Summit and Cuyahoga Counties during his study. An attempt is being made to collect and identify the common crustose and squamulose lichens species found during the OMLA field trips. The following short list represents those species identified during the fall field trip to Lawrence and Jackson Counties, Ohio.

Lawrence County, Ohio. Vesuvius Lake.

1. *Caloplaca feracissima*
2. *Graphis scripta*
3. *Lecanora dispersa*
4. *Lecanora hybocarpa*
5. *Lecanora strobilina*
6. *Lepraria neglecta*
7. *Leproloma membranaceum*
8. *Pertusaria xanthodes*
9. *Porpidia albocaulerulescens*
10. *Trypethelium virens*

Jackson County, Ohio Canter's Cave.

1. *Graphis scripta*
2. *Lecanora hybocarpa*
3. *Lecanora strobilina*
4. *Lepraria incana*
5. *Phlyctis argena*
6. *Phlyctis petraea**
7. *Porpidia albocaulerulescens*
8. *Psilolechia lucida*
9. *Scoliciosporum umbrinum*
10. *Trapelia placodioides*
11. *Trypethelium virens*
12. *Verrucaria nigrescens*

*undescribed rock species, name proposed by R. C. Harris.

DON FLENNIKEN

When the moon shall have faded out of from the sky, and the sun shall shine at noonday a dull cherry red, and the seas shall be frozen over, and the ice-cap shall have crept downward to the equator from either pole, and no keels shall cut the waters, nor wheels turn in the mills, when all cities have long been dead and crumbled into dust, and all life shall be on the very last verge of extinction on this globe; then beside the eternal snows of Panama, there a melancholy "bug", preening its antennae, shall be seated on a bit of lichen, growing on a bald rock, representing the sole survivors of life on this earth –THE MOTH BOOK. W. J. HOLLAND. 1905. P. 445-

Bryophytes from the 2005 Fall Foray

By Barb Andreas

A rich and diverse bryophyte flora was found in the two localities visited within the Lake Vesuvius Recreation Area of the Wayne National Forest, Lawrence County. Sixteen liverworts were collected, 14 of these are county records.

Leucolejeunea clypeata was the "surprise" liverwort. It is currently known from 6 mostly southern Ohio counties (Miller 1964).

Sixty four mosses were collected, 37 of which were county records. The known moss flora for Lawrence County has gone from 43 species to 80 (Snider & Andreas 1996). Notable moss "finds" include *Brothera leana*, previously reported from 8 counties but rarely collected, and *Fissidens ravenelii*, known from 4 counties.

Jim Toppin and Janet Traub found *Anthoceros punctatus* at Canter Caves, Jackson County. This hornwort was previously reported from 4 Ohio counties (Miller 1964). Hornworts are seasonal, appearing in autumn on damp substrates. Only one county record, *Jungermannia gracillima*, added to the bryophyte flora from the Canter Cave field trip. Due to extensive field work by Dr. Jerry Snider, Jackson County is well-collected.

Rick Gardner conducted a pre-foray trip to Lake Katherine, Jackson County. Notable collections there included *Dichelyma capillaceum*, known only from Ashtabula, Ross and Jackson Counties. It has not been collected in Ohio in almost 50 years. Other unusual mosses re-located at Lake Katherine include *Hookeria acutifolia* and *Polytrichum pallidisetum* (also a Jackson County record).

The list below is a compilation of the collections of Barb Andreas, Bob Klips, Diane Lucas, Jim Toppin and Janet Traub. A double asterisk (**) signifies county records.

Lake Vesuvius Recreation Area, Wayne National Forest, Lawrence County, OH

Liverworts

- ***Bazzania trilobata* (L.) S. Gray
- ***Blepharostoma trichophyllum* (L.) Dum.
- ***Calypogeia fissa* (L.) Raddi
- ***Cephalozia connivens* (Dicks.) Lindb.
- ***Diplophyllum apiculatum* (Evans) Steph.
- ***Frullania eboracensis* Gott.

Jungermannia crenuliformis Aust.

- ***Jungermannia gracillima* Sm.
- ***Leucolejeunea clypeata* (Schwein.) Evans
- ***Lophocolea heterophylla* (Schrad.) Dum.
- ***Nowellia curvifolia* (Dicks.) Mitt.
- ***Pallavicinia lyellii* (Hook.) Carruth.
- ***Pellia epiphylla* (L.) Corda
- ***Plagiochila porelloides* (Torrey ex Nees) Lindenb.
- ***Reboulia hemisphaerica* (L.) Raddi
- Scapania nemorea* (L.) Grolle

Mosses

- Amblystegium varium* (Hedw.) Lindb.
- ***Anomodon attenuatus* (Hedw.) Hüb.
- ***Anomodon rostratus* (Hedw.) Schimp.
- Atrichum angustatum* (Brid.) Bruch & Schimp. in B.S.G.
- ***Atrichum oerstedianum* (C. Müll.) Mitt.
- Aulacomnium heterostichum* (Hedw.) Bruch & Schimp. in B.S.G.
- ***Barbula unguiculata* Hedw.
- Bartramia pomiformis* Hedw.
- ***Brachythecium oxycladon* (Brid.) Jaeg.
- ***Brachythecium salebrosum* (Web. & Mohr) Schimp. in B.S.G. var. *salebrosum*
- ***Brothera leana* (Sull.) C. Müll.
- Bryoandersonia illecebra* (Hedw.) Robins.
- ***Bryhnia novae-angliae* (Sull. & Lesq. in Sull.) Grout
- ***Bryum pseudotriquetrum* (Hedw.) Gaertn. et al.
- ***Callicladium haldanianum* (Grev.) Crum
- ***Campylium chrysophyllum* (Brid.) J. Lange
- Campylium hispidulum* (Brid.) Mitt.
- Ceratodon purpureus* (Hedw.) Brid. var. *purpureus*
- ***Climacium americanum* Brid.
- ***Ctenidium molluscum* (Hedw.) Mitt.
- Dicranella heteromalla* (Hedw.) Schimp.
- ***Dicranodontium denudatum* (Brid.) Britt. in Williams
- ***Dicranum flagellare* Hedw.
- ***Dicranum fulvum* Hook.
- ***Dicranum montanum* Hedw.
- Dicranum scoparium* Hedw.
- Diphyscium foliosum* (Hedw.) Mohr
- Ditrichum pallidum* (Hedw.) Hampe
- ***Entodon seductrix* (Hedw.) C. Müll.
- ***Fabronia ciliaris* (Brid.) Brid.
- Fissidens dubius* P. Beauv.
- Fissidens taxifolius* Hedw.
- ***Fissidens osmundioides* Hedw.
- ***Fissidens ravenelii* Sull.
- ***Fissidens subbasilaris* Hedw.

***Fissidens taxifolius* Hedw.
Grimmia pilifera P. Beauv.
 ***Haplohymenium triste* (Ces. in De Not.)
 Kindb.
 ***Hygroamblystegium tenax* (Hedw.) Jenn.
 var. *tenax*
Hypnum curvifolium Hedw.
 ***Hypnum fertile* Sendtn.
Hypnum imponens Hedw.
 ***Leskea gracilescens* Hedw.
Leucobryum albidum (Brid. ex P. Beauv.)
 Lindb.
 ***Leucobryum glaucum* (Hedw.) Ångstr. in
 Fries
Leucodon julaceus (Hedw.) Sull.
Plagiomnium cuspidatum (Hedw.) T. Kop.
Plagiothecium cavifolium (Brid.) Iwats.
 ***Platygyrium repens* (Brid.) Schimp. in
 B.S.G.
Pogonatum pensilvanicum (Hedw.) P. Beauv.
 ***Pohlia annotina* (Hedw.) Lindb.
Polytrichum ohioense Ren. & Card.
 ***Pseudotaxiphyllum distichaceum* (Mitt.)
 Iwats.
 ***Pseudotaxiphyllum elegans* (Brid.) Iwats.
 ***Pylaisiadelphina tenuirostris* (Bruch &
 Schimp. ex Sull.) Buck
 ***Pylaisiella selwynii* (Kindb.) Crum et al.
Rhabdoweisia crispata (With.) Lindb.
Schistidium rivulare (Brid.) Podp. var. *rivulare*
Sematophyllum adnatum (Michx.) Britt.
 ***Steerecleus serrulatus* (Hedw.) Robins.
Tetraphis pellucida Hedw.
Thuidium delicatulum (Hedw.) Schimp. in
 B.S.G.
 ***Tortella humilis* (Hedw.) Jenn.
 ***Tortella tortuosa* (Hedw.) Limpr.

Canter Caves, Jackson County

Hornworts

Anthoceros punctatus L.

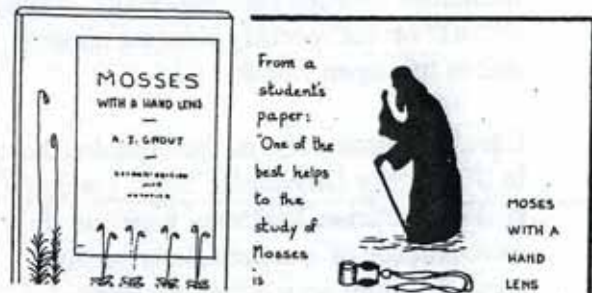
Liverworts

Calypogeia fissa (L.) Raddi
Conocephalum conicum (L.) Underw.
Diplophyllum apiculatum (Evans) Steph.
Jungermannia crenuliformis Aust.
 ***Jungermannia gracillima* Sm.
Pellia epiphylla (L.) Corda
Plagiochila porelloides (Torrey ex Nees)
 Lindenb.
Scapania nemorea (L.) Grolle

Mosses

Anomodon rostratus (Hedw.) Schimp.
Aphanorhagma serratum (Hook. f. & Wils. in
 Drumm.) Sull. in Gray
Aulacomnium heterostichum (Hedw.) Bruch &
 Schimp. in B.S.G.
Bryoandersonia illecebra (Hedw.) Robins.
Bryoxiphium norvegicum (Brid.) Mitt.
Dicranella heteromalla (Hedw.) Schimp.
Dicranum flagellare Hedw.
Dicranum scoparium Hedw.
Entodon cladorrhizans (Hedw.) C. Müll.
Eurhynchium pulchellum (Hedw.) Jenn.
Forsstroemia trichomitria (Hedw.) Lindb.
Gymnostomum aeruginosum Sm.
Hedwigia ciliata (Hedw.) P. Beauv.
Herzogiella striatella (Brid.) Iwats.
Hypnum lindbergii Mitt.
Leskea gracilescens Hedw.
Mnium hornum Hedw.
Orthotrichum pusillum Mitt.
Plagiomnium cuspidatum (Hedw.) T. Kop.
Plagiothecium cavifolium (Brid.) Iwats.
Polytrichum commune Hedw.
Polytrichum ohioense Ren. & Card.
Rhabdoweisia crispata (With.) Lindb.
Sematophyllum demissum (Wils.) Mitt.
Steerecleus serrulatus (Hedw.) Robins.
Tetraphis pellucida Hedw.

"At the doorway was a little rug of lichen on which the
 fairies wiped their feet". THE FAIRY CHURCH IN THE
 WOODS. 1962. ELLEN FENLON.



FROM: HOW TO KNOW THE MOSES. HENRY CONRAD.
 [1944] p. 21.

NEW OHIO MOSS RECORD

Trematodon longicolis, a “long-necked moss,” from Hocking County is a new OH record.

During May 2005 Tara Poling and I made yet another bryophyte exploration trip to “Deep Woods,” the privately owned 282 acre tract in Hocking County that is the site of the Ohio Biological Survey-supported “All Taxa Biodiversity Inventory.” Owing to the diversity and beauty of the site, doing a moss survey here is exhilarating. However, because several bryologists, most notably Barb Andreas and Jerry Snider, have already done extensive field work nearby, new county records are especially hard to snag for Hocking, which has 215 moss taxa, more than any other Ohio county. One of the spots we focused on this fine spring morning was just above the bank of the East Fork of Queer Creek, on ground that was disturbed one year previously during the construction of a narrow footbridge across the creek. Conspicuous on the site that day was a very widespread moss typical of eroding woodland trails and such, the smallish linear-leaved acrocarp moss *Dicranella heteromalla*, seen abundantly “fruiting” (bearing sporophytes) as it so often does. The numerous sporophytes practically formed a “turf” on the recently sidecast mineral soil at this open wooded site.

Careful examination of the capsules there in that mossy *Dicranella* “turf” yielded a striking surprise. Scattered here and there were patches of a superficially similar moss that bore very oddly elongate capsules. It was immediately apparent this was a “long-necked” moss of the genus *Trematodon*, subsequently identified as *T. longicolis*, and noted

shortly thereafter to be absent from the Atlas and Checklist of the Mosses of Ohio because it was new for the State! According to Crum and Anderson in their 1981 identification manual *Mosses of Eastern North America*, this plant is found on damp sand or clay of banks, especially roadside ditches. They describe its range as being very widely distributed, especially in tropical and austral latitudes, but also occurring in eastern North America, from New Jersey and southern Ontario to Florida and west to Oklahoma and Texas (but more common southward). Perusal of the amazing searchable New York Botanical Garden’s “Virtual Herbarium” that includes the nearly 300,000 specimen American Bryophyte Catalogue shows this new record is near the northern limit of its range. One wonders how this moss came to grow along this Ohio stream. Is there a big source population nearby that blankets the region with spores and enabled this rare pioneer plant to spring up so swiftly on a recently created site? Also striking was the occurrence of other uncommon ephemeral associates alongside the long-necked beauty such as *Bruchia flexuosa* bearing capsules that look like little weather balloons, the diminutive *Pleuridium subulatum*, with immersed capsules, along with a very common spring ephemeral noted elsewhere at Deep Woods, *Physcomitrium pyriforme*. The match-up between plant species and particular environmental conditions is endlessly fascinating.

Bob Klips

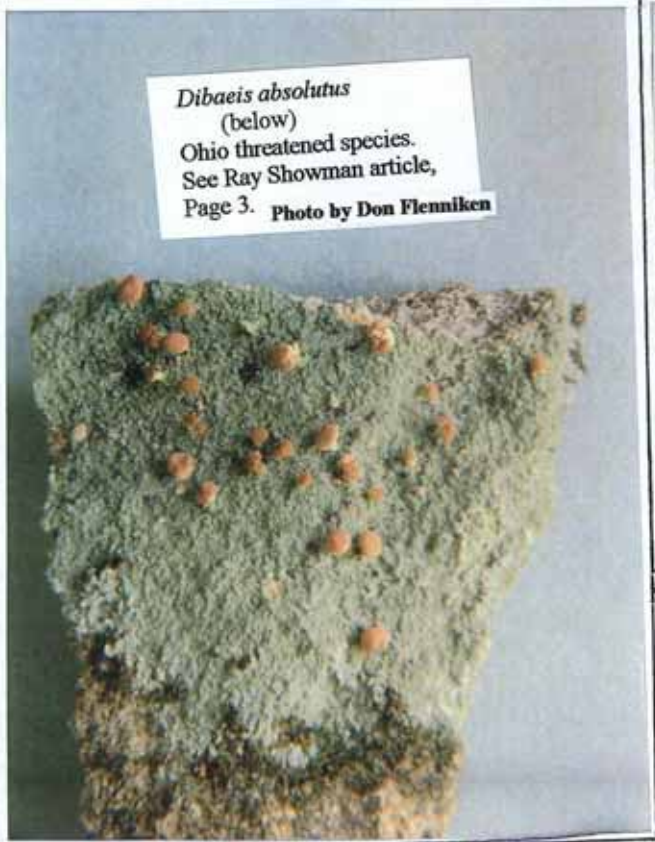
Ramalina petrina
(Below)
Ohio threatened species.
See Ray Showman article,
Page 3. Photo by Don Flenniken



Trematodon longicollis
(Above)
New Ohio record moss.
See Bob Klips article,
Page 7. Photo by Bob Klips



Dibaeis absolutus
(below)
Ohio threatened species.
See Ray Showman article,
Page 3. Photo by Don Flenniken



Canoparmelia texana
(Above)
Ohio threatened species.
See Ray Showman article,
Page 3. Photo by Don Flenniken