The 11th Annual Midwestern Foray, Southern Illinois

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The 11th Annual Midwestern foray, held in southern Illinois the weekend of 16-18 October, 1993 was attended by 43 participants. Headquartered at the Southern Illinois University Touch of Nature facility, a Friday evening mixer was highlighted with a slide presentation on the Shawnee National Forest by Lawrence Stritch of the U. S. Forest Service. This nicely introduced all to the varied habitats of the region which range from lowland cypress/tupelo gum swamps (Taxodium distichum (L.) Rich./ Nyssa aquatica L.) to various natural areas characterized by sandstone bluffs, rock ledges, canyons and ravines. The forest is Quercus L./ Carya Nutt. dominated, comprised of numerous species of Oaks and half a dozen common Hickory species. Often referred to as the Illinois Ozarks, the southern most portion of Illinois is, however, geologically distinct from that limestone based region. Northward from the confluence of the Mississippi and Ohio Rivers, the ancient tertiary flood plain of the Gulf of Mexico gives rise to an abrupt east/west line of Pennsylvanian sandstone ridges and bluffs that are intersected with canyons in a line about 35 km wide delimiting the southernmost front of the four glaciers that had invaded Illinois during the Pleistocene. This region is biologically quite unique in that it demarcates N, S, E, and W range end points for an unusually high number of floral and faunal representatives.

Bryophytes and lichens were observed at four locations over the weekend. The first site visited [BT] was an impressive cypress grove towered by several “big trees” estimated to be 1000 years in age. This relatively small tract is located in Pulaski County and was previously owned by the Main Brothers Box and Lumber Company. No collecting permit was issued for this preserve, which represents a recent purchase by the Illinois Department of Conservation. Among the cryptogams observed here were fairly large patches of Ptychomitrium drummondii and Porella pinnata commonly occurring on the cypress trunks as well as the lichenized fungi Bacidia incompta and Haematomma pustulatum.

The second stop of the morning was Heron Pond [HP] an Illinois Department of Conservation Nature Preserve located in Johnson County. This site is a textbook example of what a swamp should be. It is everything one could hope to find in a bald cypress/tupelo gum swamp except for the absence of Spanish moss (Tillandsia L.). A floating boardwalk turns its way out into the swamp allowing visitors to enjoy the serenity of this peaceful area. The water is totally hidden by a cover of duckweeds (Lemna L.,

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Spirodela Schleiden, Wolffia Horkel ex Schleiden, and Wolffiella Hegelm.) interrupted with occasional Limnobium spongia (Bosc) Steudel. plants. Again, no collecting permits were issued for this preserve but interesting lichens and bryophytes were abundant. Notable were the hornworts Notothylas orbicularis and Phaeoceros cf. carolineanus appearing on the barren, recently exposed mud flats of the receding Cache River waters. This same habitat also provided substrate for Fissidens obtusifolius Wils., F. fontanus (Pyl.) Steud. and F. pusillus Wils.

Following lunch, the entire afternoon was spent at Hayes Creek Canyon [HC] where participants scattered, observed, and sampled the bryolithic flora. Our entry from a farm pasture led from xeric, exposed sandstone outcrops bordered with scrub oaks and red cedar (Juniperus virginiana L.). The exposed root of one such red cedar supported a colony of Ochrolechia arborea and in an upper tributary channel was Peltigera rufescens in abundance. Nearby, Campylopus tallulensis Sull. & Lesq. was collected. On sandstone in the fells area Rhinodina chrysomena was collected which is thought to represent a new record for Illinois. Our trail down this dry sandstone gulch led into a mesic lowland wooded area. Here we encountered sandstone outcrops and ledges constantly moist with seepage in close proximity to Hayes Creek. One such ledge supported a hanging bog comprised of populations of Spagnum compactum DC and the isophyllous form of S. capillifolium (Ehrth.) Hedw. An adjacent low rock outcrop with a different aspect supported Pellia epiphylla and Diplophysium apiculatum populations. The boreal taxon Trichioolea tomentella was seen in a more protected, shaded habitat tucked below a moist sandstone overhang. A decorticate log in an exact stage of decay positioned in a properly sheltered region provided habitat for the boreal hepatic Nowellia curvifolia. While this taxon can generally be found in most of the canyon systems of southern Illinois, it rarely is encountered on more than a single log which must meet strict microhabitat requirements at this latitude.

Sunday morning greeted us on a mesic lowland trail dominated by various maples which leads into a Wilderness Area of the U. S. Forest Service, Panther’s Den [PD] in the northeast corner of Union County. Here massive faulted Pennsylvanian age Pounds sandstone blocks produce a network of high vertical rock faces intersected by a maze of narrow passage ways. This habitat is especially suitable for cryptogams, being cool and moist in the otherwise hot, dry southern Illinois summer and warmer in the typically mild winter months. Aspect differences result in rock surfaces that range from very dry rock seemingly painted with Lepraria finkii to rock faces that remain moist and cool due to evaporation. Here mats of leafy hepatics such as Plagiochila porelloides, Scapania nemorea, and Odontoschisma prostratum cover entire surfaces. One vertical sandstone face was tightly covered with the filmy fern Trichomanes intricatum. Thus, while the substrate remains identical throughout the den, microhabitat is quite varied. This factor allowed participants to observe and collect an array of bryophytes and lichens in a relatively small region.
Following is a list of taxa that were observed or collected within the four locations visited on the foray (Cypress grove = BT; Heron Pond = HP; Hayes Creek Canyon = HC; Panther's Den = PD) and identified by the contributors of this brief note. Numbered collections by Allen are indicated by "A"; Pedano vouchers are denoted by "GP" and housed at MO; Pursell collections are indicated by "P"; Merrill collections are indicated by "M"; Stotler/Crandall Stotler vouchers are denoted by "S" and deposited in ABSH; Thomson vouchers are denoted by "T" and deposited at WIS with a partial set at SIU; Toppin vouchers are denoted by JT with a set deposited in SIU. While this is not by any means meant to be an exhaustive compilation of the bryophytes and lichens that occur in these natural areas, it nonetheless characterizes the floristic diversity of this component within southern Illinois. Nomenclature, with few exceptions, follows Stotler and Crandall-Stotler (1977) for liverworts and hornworts, Egan (1987, 1990) for lichens, Anderson, Crum and Buck (1990) for mosses, and Anderson (1990) for Sphagnum.

Annotated List of Hepatics and Anthocerotes

*Bazzania trilobata* (L.) S. Gray [PD]
*Calypogeia muelleriana* (Schiffn.) K. Muell. [HC (S3429)]
*Cephaloziella* sp. [HC]
*Cephalozia* sp. [HC]
*Conocephalum conicum* [HC]
*Diplophyllum apiculatum* (Evans) Steph. [HC; PD (A15028B; M13908)]
*Frullania eboracensis* Gott. [HP; HC (S3433A)]
*F. inflata* Gott. [BT]
*Leucolejeunea clypeata* (Schwein.) Evs. [HC (S3433B)]
*Lophocolea heterophylla* (Schrad.) Dum. [HC (S3434)]
*Marstella sphaerlata* (Geis.) Dum. [HC (S3431)]
*Metzgeria conjugata* Lindb. [PD (A15033)]
*Notothylas orbicularis* (Schwein.) Sull. [HP]
*Novellia curvisolia* (Dicks.) Mitt. [HC]
*Odontoschisma prostratum* (Sw.) Trev. [HC; PD]
*Pallavicinia hyellii* (Hook.) Carruth. [PD]
*Pellia epiphylla* (L.) Corda [HC]
*Phaeoceros cf. carolinianus* (Michx.) Prosk. [HP]
*Plagiochila porelidoides* (Torrey ex Nees) Lindenb. [PD]
*Porella pinnata* L. [BT; HC; PD]
*Radula* sp. [HC (M13912)]
*Ricciocarpos natans* (L.) Corda [HP]
**Scapania nemorea** (L.) Grolle [HC (S3430 p.p.)]

*Trichocolea tomentella* (Ehrh.) Dum. [HC (M13916)]

### Annotated List of Lichens

**Aspicilia laevata** (Ach.) Arnold [HC (T24487)]

A. *cf. olivaceopallida* Magn. [HC (T24491)]

**Bacidia incompta** (Borrer ex Hook.) Anzi [BT]

B. *schweinitzii* (Tuck.) A. Schneider [HP]

**Cladina subtenuis** (des Abb.) Hale & Culb. [HC (T24495)]

C. *rangiferina* (L.) Harm. [HC (T24504)]

C. *apodocarpa* Robb. [HC (T24500); PD (T24514)]

C. *caroliniana* Schwein ex Tuck. [HC (T24502)]

C. *cristatella* Tuck. [HC (T24487a)]

C. *furcata* (Huds.) Schrader [HC (T24488)]

C. *grayi* G. K. Merr. ex Sandst. [HC (T24498)]

C. *pleurota* (Floerke) Schärer [HC (T24505); PD (T24513)]

C. *squamosa* (Scop.) Hoffm. [HC (T24486, 24487, 24497, 24499)]

**Dermatocarpon luridum** (With.) Laundon [HC (T24485, 24503)]

*Graphis lineola* Ach. [HP]

G. *scripta* (L.) Ach. [PD (T24522)]

**Haematomma pustulatum** Brodo & Culb. [BT]

**Huilia albocaerulescens** (Wulfen) Hertel [HC (T24507)]

**Lecanora hageni** (Ach.) Ach. [PD (T24518)]

L. *finkii* (B. de Lesd. in Hue) R.C. Harris [PD (T24510, 24516)]

**Ochrolechia arborea** (Kreyer) Almb. [HC (T24508)]

**Parmelia aurulentia** (Tuck.) Hale [PD (T24512)]

**Parmeliopsis hyperopta** (Ach.) Arn. [PD (T24520)]

**Parmotrema hypotropum** (Nyl.) Hale [HP]

**Peltigera rufescens** (Weis.) Humb. [HC (T24509)]

**Pertusaria amara** (Ach.) Nyl. [HP]

**Phaeophyscia rubropulchra** (Degel.) Moberg [HP; HC (T24493)]

**Physconia detersa** (Nyl.) Poelt [HP (T24511)]

**Porpidia tahawasiana** Gowan [HC (T24482, 24492)]

**Punctelia rudecta** (Ach.) Krog. [HP; HC (T24494); PD (T24515, 24517, 24524)]

**Pyxine caesiopruinosa** (Nyl.) Imsh. [HP]

P. *sorediata* (Ach.) Mont. [PD (T24523)]

**Rinodina chrysomelaena** Tuck. [HC (T24506)]

**Xanthoparmelia angustiphylla** (Gyelnik) Hale [HC (T24484, 24501)]

### Annotated List of Mosses

**Amblystegium serpens** (Hedw.) Schimp. in B.S.G. [HC]

**Anomodon attenuatus** (Hedw.) Hueb. [HC; PD (GP1195)]
A. minor (Hedw.) Fuernr. [HP]
A. rostratus (Hedw.) Schimp. [PD (M13922)]
Atrichum altecristatum (Ren. & Card.) Smyth & Smyth [PD (M13928)]
A. angustatum (Brid.) Bruch & Schimp. in B.S.G. [HP; HC (GP1150; M13890); PD (M13921, 13930)]
A. crispulum (James) Sull. [HC (M13910)]
A. cylindricum (Willd. in Wedb.) G. L. Sm. [HP]
Bartramia pomiformis Hedw. [HC (M 13899)]
Brachythecium campestre (C. Muell.) Schimp. in B.S.G. [PD]
B. oxycladum (Brid.) Jaeg. [PD (A15031)]
B. rutabulum (Hedw.) Schimp. in B.S.G. [HC]
Bryoandersonia illecebra (Hedw.) Robins. [HC (GP1167)]
Bryum argenteum Hedw. [HC (GP1164)]
Campylopus tallulensis Sull. & Lesq. [HC (A15014; GP1185; M13904; S3435)]
Clasmatodon parvulus (Hampe) Sull. in A. Gray [HC (A15009)]
Climacium americanum Brid. [HC (GP1170, 1182) PD (GP1198, 1204, 1205)]
C. kindbergii (Ren..& Card.) Grout [HC (M13918); PD]
Dicranella heteromalla (Hedw.) Schimp. [HC (GP1157, 1175)]
Dicranum scoparium Hedw. [HC (GP1180)]
Diphyesfolium foliosum (Hedw.) Mohr [HC (GP1177)]
Entodon seductrix (Hedw.) C. Muell. [HC (GP1155)]
Fissidens bryoides Hedw. [HC (GP1152, 1153, 1178)]
F. dubius P. Beauv. [HC (P & A11085, 11087)]
F. elegans Brid. [HC (P&A11088); PD (P11090, 11091)]
F. fontanus (P. Pyl.) Steud. [HP; HC (A15022B, 15023; P&A 11084; GP1184; M13903)]
F. obtusifolius Wils. [HP; HC (P&A11086)]
F. osmundioides Hedw. [HC (P & A11089)]
F. pusillus Wils. [HP]
Fontinalis duriae Schimp. [HC (A15011)]
Fontinalis flaccida Ren. & Card. [HC (A15022; GP1183)]
Grimmia laevigata (Brid.) Brid. [HC (A15020)]
G. pilifera P. Beauv. [HC (GP1172)]
Gymnostomum aeruginosum Sm. [HC (A15024)]
Haplophrymenium triste (Ces. in De Not.) Kindb. [HP; HC (GP1156; M13902); PD (GP1199)]
Hedwigia ciliata (Hedw.) P. Beauv. [HC (GP1154; M13892; JT542)]
Homalatheciella subcapillata (Hedw.) Broth. [HP; HC (A15009B)]
Hygroamblystegium tenax (Hedw.) Jenn. [HC (GP1163), PD (GP1206)]
Hypnum curvifolium Hedw. [HC (A15015)]
H. lindbergii Mitt. [HC (GP1160)]
Leptobryum sp. [HC (M13900)]
Leptodictyum riparium (Hedw.) Warnst. [PD (GP1203)]
Leskea gracilescens Hedw. [HP; PD]
Leucobryum glaucum (Hedw.) Aongst. in Fries [HC; PD (GP1188)]

Leucodon julaceus (Hedw.) Sull. [HP; HC (GP1147); PD (GP1200)]

Mnium thomsonii Schimp. [PD (A15027)]

Orthotrichum pumilum Sw. [HC (JT548)]

O. pusillum Mitt. [PD (GP1202)]

Philonotis fontana (Hedw.) Brid. [HC (A15010)]

Plagiomnium ciliare (C. Muell.) T. Kop. [PD (M13924)]

Plagioopus oederiana [PD]

Plagiothecium cavifolium (Brid.) Iwats. [HC]

P. denticulatum (Hedw.) Schimp. in B.S.G. [PD (A15030)]

Platygerium repens (Brid.) Schimp. [HP; PD]

Pogonatum pensilvanicum (Hedw.) P. Beauv. [PD (GP1197)]

Pohlia nutans (Hedw.) Lindb. [HC (GP1159)]

Polytrichastrum ohiense (Ren. & Card.) G. L. Sm. [HC (M13891)]

Polytrichum commune Hedw. (HC M 13894, 13905)]

Pseudoaxiphyllum elegans (Brid.) Iwats. [PD (A15032; GP1186, 1191)]

Ptychomitrium drummondii (Wils.) Sull. [BT]

Rhabdoweisia crispa (With.) Lindb. [PD (A15028)]

Rhizomnium punctatum (Hedw.) T. Kop. [PD (A15026)]

Rhodobryum roseum (Hedw.) Limpr. [HC]

Schistidium rivulare (Bridel) Podpera [HC (A15012)]

Sematophyllum demissum (Wils.) Mitt. [HC (A15008, 15021; GP1146, 1151, 1158, 1166, 1168, 1171, 1174) PD (GP1194, 1201)]

Sphagnum capillifolium (Ehrh.) Hedw. [HC (A15016; M13907; S3384)]

S. compactum DC. in Lam. & DC. [HC (A15025; M13906; S3383)]

Thamnobryum alleghaniense (C. Muell.) Nieuwl. [PD (A15029)]

Thelia hirtella (Hedw.) Sull. in Sull. & Lesq. [HC (A15013; JT541)]

Thuidium delicatum (Hedw.) Schimp. in B.S.G. [HC (GP1181); PD (GP1189, 1192)]

Literature Cited


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