

A LIST OF INDIANA MOSSES.

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Reports of mosses occurring in Indiana have been, in the main, meager and local, with only one report, by Professor L. M. Underwood, including species from more than one county. The writer has had the privilege of examining three collections of mosses that have not been hitherto reported upon. These collections include a large number of specimens collected from all parts of the state and it was thought that a list including all these collections together with all those previously reported upon would be of value indicating the presence and distribution of our moss flora.

Probably one of the largest collections of mosses in the state that has not previously been reported is that belonging to Mr. C. C. Deam. Mr. Deam's collection includes specimens from nearly every part of the state. The writer has had the privilege of examining and identifying this collection during the past year.* Another large and excellently prepared and preserved collection is that owned by Professor J. P. Naylor of DePauw University. Although a physicist, Professor Naylor has been an enthusiastic collector and student of mosses for many years and has built up a large collection mainly from Putnam County. Miss Lucy Allen, a former student at DePauw, made a small collection from Putnam County which is deposited in the DePauw University herbarium. In addition to these three unreported collections all the species reported in publications on Indiana mosses known to the writer have been included in the list which includes one hundred and seventy-four species, thirty-two of which are being reported from Indiana for the first time, it is believed. Under each species is given a list of the counties where it has been found together with the collector's name in parenthesis. The arrangement and nomenclature is essentially that of Grout's "Mosses With Hand Lens and Microscope".

The following bibliographical list indicates the publications from which lists of mosses have been taken and incorporated in the present report. Professor Underwood included in his report a few specimens collected by Barnes, Blatchley, Mottier and Röll. None of the collections included in the following bibliographical list have been seen by the writer with the exception of the one made by Professor Underwood which is deposited in the DePauw University herbarium.

Haines, Mrs. Mary P., A list of ferns, mosses, Hepaticae and lichens in Wayne County, Indiana. 9th & 10th Ann. Rept., Geol. Survey of Indiana. pp. 235-239. 1879.

Pickett, F. L., and Nothmagel, Mildred. The mosses of Monroe County. Proc. Indiana Acad. Sci. pp. 69-75. 1913.

Pickett, F. L., and Nothmagel, Mildred. The mosses of Monroe County, II. Proc. Indiana Acad. Sci. pp. 103-105. 1914.

Underwood, L. M., List of cryptogams at present known to inhabit the state of Indiana. Proc. Indiana Acad. Sci. pp. 65-67. 1894.

*Doubtful specimens were referred to Dr. A. J. Grout and Mr. G. B. Kaiser of Philadelphia for verification.

- Wilson, Guy, Flora of Hamilton and Marion Counties, Indiana. Proc. Indiana Acad. Sci. p. 157. 1895.
 Young, A. H., Bryological Notes. Bot. Gaz. 2:61-62. 1876.

SPIAGNACEAE.

Sphagnum cuspidatum Ehrh.

Jefferson (Young).

Sphagnum cymbifolium Ehrh.

Fulton (Underwood); Kosciusko (Deam); Steuben (Deam).

Sphagnum papillosum laeve Warnst.

Fulton (Underwood).

Sphagnum papillosum intermedium (Russ.) Warnst.

Wells (Deam).

Sphagnum recurvum mucronatum.

Fulton (Underwood).

Sphagnum rufescens.

Fulton (Underwood).

Sphagnum squarrosum Pers.

Jefferson (Young).

GEORGIAEAE.

Georgia pellucida (L.) Rabenhi.

Hamilton (Wilson as *Tetraphis pellucida*); Putnam (Underwood, Naylor).

POLYTRICHIACEAE.

Catherinca angustata Brid.

Crawford (Deam); Jackson (Deam); Jefferson (Young as *Atrichum angustatum*); Knox (Deam); Martin (Deam); Owen (Deam); Putnam (Naylor, Underwood); Scott (Deam); Vigo (Underwood as *Atrichum angustatum*); Wayne (Mrs. Haines as *Atrichum angustatum*).

Catherinca undulata (L.) W. & M.

Allen (Deam); Brown (Deam); Jefferson (Deam); Lagrange (Deam); Monroe (Deam); Noble (Deam); Posey (Deam); Pulaski (Deam); Putnam (Deam, Naylor, Underwood as *Atrichum undulatum*); Stenben (Deam); Wayne (Mrs. Haines as *Atrichum undulatum*); Wells (Deam).

Polytrichum commune L.

Jefferson (Young); Monroe (Pickett & Nothmagel); Putnam (Naylor); Starke (Deam).

Polytrichum formosum Hedw.

Jefferson (Young); Montgomery (Barnes); Wayne (Mrs. Haines).

Polytrichum Ohionense R. & C.

Clark (Deam); Hamilton (Wilson); Hancock (Deam); Jackson (Deam); Jefferson (Deam); Marshall (Deam, Underwood); Martin (Deam); Monroe (Pickett & Nothmagel); Orange (Deam); Owen (Miss Deam); Putnam (Allen, Naylor); Ripley (Deam); Wells (Deam).

Polytrichum Piliferum Schreb.

Monroe (Pickett & Nothnagel).

Pogonatum brevicaule (Brid.) Beauv.

Monroe (Pickett & Nothnagel); Putnam (Naylor, Underwood).

BUXBAUMIACEAE.

Buxbaumia aphylla L.

No specimens of this plant have been seen by the writer. However, Professor Mottier reports finding it in Monroe County and Professor Naylor reports having seen it in Putnam County.

FISSIDENTACEAE.

Bryoziphium Norregicum (Brid.) Mitt.

Parke (Allen); Putnam (Underwood).

Fissidens adiantoides (L.) Hedw.

Jefferson (Young); Wayne (Mrs. Haines).

Fissidens bryoides (L.) Hedw.

Monroe (Pickett & Nothnagel).

Fissidens cristatus Wils.

Jefferson (Young as *Fissidens decipiens*); Monroe (Pickett & Nothnagel).

Fissidens incurvus Schwaegr.

Putnam (Naylor, Underwood).

Fissidens incurvus minutulus Austin.

Monroe (Pickett & Nothnagel).

Fissidens Julianus (Savi.) Schimp.

Monroe (Mottier in Underwood as *Conomitrium Julianum*); Putnam (Allen).

Fissidens obtusifolius Wils.

Putnam (Naylor).

Fissidens subbasilaris Hedw.

Jefferson (Young); Putnam (Naylor); Wayne (Mrs. Haines).

Fissidens taxifolius (L.) Hedw.

Monroe (Pickett & Nothnagel); Putnam (Allen, Naylor, Underwood); Wayne (Mrs. Haines).

DICRANACEAE.

Pleuridium subulatum (L.) Rabenh.

Putnam (Naylor).

Ditrichum pallidum (Schreb.) Hampe.

Jefferson (Young as *Trichostomum pallidum*); Monroe (Pickett & Nothnagel); Montgomery (Deam); Putnam (Allen); Ripley (Deam); Spencer (Deam); Vigo (Underwood as *Leptotrichum pallidum*); Wayne (Mrs. Haines as *Trichostomum pallidum*).

Ditrichum tortile (Schrad.) Hampe.

Lake (Röll in Underwood as *Leptotrichum tortile*); Putnam (Naylor); Spencer (Deam).

Ceratodon purpureus (L.) Brid.

Dearborn (Deam) ; Jefferson (Young) ; Lagrange (Deam) ; Montgomery (Deam) ; Owen (Underwood) ; Putnam (Naylor, Underwood) ; Steuben (Deam) ; Tippecanoe (Underwood) ; Wayne (Mrs. Haines) ; Wells (Deam).

Dicranella heteromalla (L.) Schimp.

Jefferson (Young as *Dicranum heteromallum*) ; Lake (Röll in Underwood) ; Monroe (Pickett & Nothnagel) ; Putnam (Naylor, Underwood).

Dicranella rufescens (Dicks.) Schimp.

Putnam (Underwood).

Dicranella varia (Hedw.) Schimp.

Jefferson (Young as *Dicranum varium*) ; Monroe (Pickett & Nothnagel) ; Putnam (Naylor, Underwood).

Dicranum flagellare Hedw.

Lake (Röll in Underwood) ; Putnam (Naylor) ; Ripley (Deam) ; Wayne (Mrs. Haines) ; Wells (Deam).

Dicranum fulvum Hook.

Putnam (Naylor).

Dicranum fuscescens Turn.

Putnam (Naylor).

Dicranum montanum Hedw.

Jefferson (Young).

Dicranum scoparium (L.) Hedw.

Crawford (Deam) ; Jefferson (Young) ; Martin (Deam) ; Monroe (Pickett & Nothnagel) ; Montgomery (Deam) ; Putnam (Naylor, Underwood) ; Washington (Deam) ; Wayne (Mrs. Haines) ; Wells (Deam).

Dicranum viride (S. & L.) Lindb.

Wayne (Mrs. Haines).

Leucobryum glaucum (L.) Schimp.

Crawford (Deam) ; Floyd (Deam) ; Jefferson (Young) ; Lagrange (Deam) ; Martin (Deam) ; Monroe (Miss Nothnagel) ; Montgomery (Deam) ; Noble (Deam) ; Putnam (Naylor, Underwood as *Leucobryum vulgare*) ; Steuben (Deam) ; Wayne (Mrs. Haines as *Leucobryum vulgare*).

GRIMMIACEAE.

Hedwigia albicans (Web.) Lindb.

Jefferson (Young as *Hedwigia ciliata*) ; Putnam (Allen, Naylor) ; Wayne (Mrs. Haines as *Hedwigia ciliata*).

Grimmia apocarpa (L.) Hedw.

Jefferson (Young as *Schistidium apocarum*) ; Monroe (Pickett & Nothnagel) ; Putnam (Allen, Naylor, Underwood).

Grimma conferta Funck.

Wayne (Mrs. Haines as *Schistidium confertum*).

Grimmia Pennsylvanica Schwaegr.

Wayne (Mrs. Haines).

EPHIEMEAEAE.

Ephemerum crassinervium Hampe.

Putnam (Naylor).

TORTULACEAE.

Weisia viridula (L.) Hedw.

Jefferson (Young) ; Monroe (Pickett & Nothnagel) ; Putnam (Allen, Naylor, Underwood) ; Wayne (Mrs. Haines).

Gymnostomum curvirostre (Ehrh.) Hedw.

Jefferson (Young) ; Owen (Underwood) ; Putnam (Naylor, Underwood) ; Wayne (Mrs. Haines).

Gymnostomum rupestre Schleich.

Jefferson (Young).

Didymodon rubellus (Hoffm.) B. & S.

Monroe (Pickett & Nothnagel).

Barbula fallax Hedw.

Wayne (Mrs. Haines).

Barbula unguiculata (Huds.) Hedw.

Jefferson (Young) ; Monroe (Pickett & Nothnagel) ; Putnam (Naylor) ; Wayne (Mrs. Haines).

Barbula unguiculata obtusifolia (Schultz) B. & S.

Monroe (Pickett & Nothnagel).

Tortella caespitosa (Schwaegr.) Limpr.

Crawford (Deam) ; Harrison (Deam) ; Jefferson (Deam, Young as *Barbula caespitosa*) ; Montgomery (Deam) ; Putnam (Naylor) ; Scott (Deam) ; Wayne (Mrs. Haines as *Barbula caespitosa*).

Pottia truncatula (L.) Lindb.

Tippecanoe (Underwood as *Pottia truncata*).

Desmatodon Porteri James.

Perry (Deam).

ORTHIOTRICHACEAE.

Drummondia clavellata Hook.

Hamilton (Wilson) ; Jefferson (Deam, Young) ; Monroe (Blatchley in Underwood) ; Putnam (Naylor) ; Tippecanoe (Underwood) ; Wayne Mrs. Haines).

Orthotrichum Porteri Aust.

Monroe (Pickett & Nothnagel).

Orthotrichum strangulatum Sulliv.

Jefferson (Young) ; Wayne (Mrs. Haines).

FUNARIACEAE.

Physcomitrium immersum Sulliv.

Monroe (Pickett & Nothnagel).

Physcomitrium turbinatum (Mx.) Brid.

Hamilton (Wilson) ; Jefferson (Young as *Physcomitrium pyriforme*) ; Monroe (Pickett & Nothnagel) ; Owen (Underwood) ; Putnam (Allen, Naylor, Underwood) ; Switzerland (Deam) ; Tippecanoe (Underwood) ; Wayne (Mrs. Haines as *Physcomitrium pyriforme*).

Aphanorhynchum serratum Sulliv.

Putnam (Naylor).

Funaria flavicans Mx.

Monroe (Pickett & Nothnagel).

Funaria hygrometrica (L.) Sibth.

Crawford (Deam) ; Hamilton (Wilson) ; Jefferson (Young) ; Monroe (Pickett & Nothnagel) ; Putnam (Naylor, Underwood) ; Shelby (Miss Deam) ; Steuben (Miss Deam) ; Wayne (Mrs. Haines) ; Wells (Deam).

TIMMIACEAE.

Timmia megapolitana Hedw.

Montgomery (Barnes in Underwood).

AULACOMNIACEAE.

Aulacomnium heterostichum (Hedw.) B. & S.

Allen (Mrs. Deam) ; Crawford (Deam) ; Harrison (Deam) ; Jefferson (Young) ; Lagrange (Deam) ; Monroe (Pickett & Nothnagel) ; Montgomery (Barnes in Underwood) ; Putnam (Naylor, Underwood) ; Steuben (Deam) ; Wayne (Mrs. Haines).

Aulacomnium palustre Schwaegr.

Jefferson (Deam, Young) ; Lagrange (Deam) ; Marshall (Deam) ; Noble (Deam).

BARTRAMIACEAE.

Philonotis fontana (L.) Brid.Jefferson (Young as *Bartramia fontana*).*Philonotis Muhlenbergii* (Schwaegr.) Brid.

Jefferson (Young as *Bartramia Marchica*) ; Wayne (Mrs. Haines as *Bartramia Marchica*).

Bartramia pomiformis (L.) Hedw.

Crawford (Deam) ; Jefferson (Young) ; Lagrange (Deam) ; Monroe (Pickett & Nothnagel) ; Putnam (Naylor, Underwood) ; Steuben (Deam) ; Wayne (Mrs. Haines).

BRYACEAE.

Leptobryum pyriforme (L.) Wils.Putnam (Naylor) ; Wayne (Mrs. Haines as *Bryum pyriforme*).*Pohlia nutans* (Schreb.) Lindb.

Lagrange (Deam) ; Marshall (Deam) ; Martin (Deam) ; Monroe (Pickett & Nothnagel) ; Steuben (Deam) ; Wayne (Mrs. Haines as *Bryum nutans*).

Mniobryum albicans (Wahlenb.) Limpr.

Kosciusko (Deam) ; Putnam (Allen, Naylor) ; Tippecanoe (Deam).

Bryum argenteum L.

Jefferson (Young) ; Monroe (Pickett & Nothnagel) ; Pulaski (Deam) ; Putnam (Underwood) ; Warrick (Deam) ; Wayne (Mrs. Haines).

Bryum bimum Schreb.

Wells (Deam).

Bryum caespiticium L.

Putnam (Allen, Naylor, Underwood) ; Wayne (Mrs. Haines) ; Wells (Deam).

Bryum capillare L.

Monroe (Pickett & Nothnagel).

Bryum intermedium Brid.

Monroe (Pickett & Nothnagel) ; Owen (Underwood) ; Putnam (Naylor) ; Wells (Deam).

Bryum pseudotriquetrum (Hedw.) Schwaegr.

Putnam (Naylor) ; Wayne (Mrs. Haines).

Bryum Wahlenbergii Schwaegr.

Jefferson (Young).

Rhodobryum roseum (Weis.) Limpr.

Jefferson (Young as *Bryum roseum*) ; Monroe (Pickett & Nothnagel) ;

Putnam (Naylor, Underwood) ; Wayne (Mrs. Haines as *Bryum roseum*).

Mnium affine Bland.

Gibson (Deam) ; Jefferson (Deam) ; Montgomery (Barnes in Underwood) ; Wayne (Mrs. Haines).

Mnium affine ciliare (Grev.) C. M.

Harrison (Deam) ; Monroe (Pickett & Nothnagel) ; Putnam (Naylor) ; Ripley (Deam).

Mnium cuspidatum (L.) Leyss.

Allen (Deam) ; Brown (Deam) ; Decatur (Miss Deam) ; Dubois (Deam) ; Floyd (Deam) ; Hamilton (Wilson) ; Huntington (Deam) ; Jefferson (Young) ; Kosciusko (Deam) ; Lagrange (Deam) ; Lawrence (Deam) ; Monroe (Pickett & Nothnagel) ; Orange (Deam) ; Putnam (Allen, Naylor, Underwood) ; Randolph (Deam) ; Steuben (Deam) ; Wayne (Mrs. Haines) ; Wells (Deam).

Mnium marginatum (Dicks.) Beauv.

Putnam (Naylor).

Mnium medium B. & S.

Gibson (Deam) ; Parke (Deam).

Mnium punctatum L.

Putnam (Naylor).

Mnium rostratum Schrad.

Jefferson (Young) ; Monroe (Pickett & Nothnagel) ; Putnam (Naylor) ; Wayne (Mrs. Haines).

LESKEACEAE.

Thuidium delicatulum (L.) Mitt.

Crawford (Deam) ; Harrison (Deam) ; Lagrange (Deam) ; Lawrence (Deam) ; Martin (Deam) ; Monroe (Pickett & Nothnagel) ; Montgomery (Deam) ; Perry (Deam) ; Porter (Deam) ; Putnam (Allen, Naylor, Underwood as *Hypnum delicatulum*) ; Steuben (Deam) ; Wayne (Mrs. Haines as *Hypnum delicatulum*).

Thuidium microphyllum (Sw.) Best.

Gibson (Deam) ; Jefferson (Young as *Hypnum gracile*) ; Knox (Deam) ; Lagrange (Deam) ; Martin (Deam) ; Putnam (Naylor) ; Rip-

ley (Deam) ; Stenben (Deam) ; Warrick (Deam) ; Wayne (Mrs. Haines as *Hypnum gracile*).

Thuidium minutulum (Hedw.) B. & S.

Jefferson (Young as *Hypnum minutulum*).

Thuidium paludosum (Sulliv.) R. & H.

Allen (Deam) ; Lagrange (Deam).

Thuidium pygmaeum B. & S.

Monroe (Pickett & Nothmagel).

**Thuidium tamariscinum* B. & S.

Jefferson (Young as *Hypnum tamariscinum*) ; Wayne (Mrs. Haines as *Hypnum tamariscinum*).

Thuidium Virginianum (Brid.) Lindb.

Martin (Deam) ; Putnam (Naylor) ; Wayne (Mrs. Haines as *Hypnum gracile Lancastriense*).

Leskeia denticulata Sulliv.

Wayne (Mrs. Haines).

Leskeia graciliscescens Hedw.

Dearborn (Deam) ; Jefferson (Deam) ; Knox (Deam) ; Putnam (Naylor) ; Ripley (Deam) ; Tippecanoe (Deam) ; Warrick (Deam) ; Wells (Deam).

Leskeia obscura Hedw.

Gibson (Deam) ; Jefferson (Young).

Leskeia nervosa nigrescens (Kindb.) Best.

Perry (Deam).

Leskeia polycarpa Ehrh.

Putnam (Naylor) ; Wayne (Mrs. Haines).

Anomodon apiculatus B. & S.

Putnam (Naylor).

Anomodon attenuatus (Schreb.) Hueben.

Harrison (Deam) ; Jefferson (Young) ; Monroe (Pickett & Nothmagel) ; Owen (Deam) ; Perry (Deam) ; Putnam (Allen, Naylor) ; Wayne (Mrs. Haines).

Anomodon fragilis (?)

Wayne (Mrs. Haines).

Anomodon minor (Beauv.) Fuern.

Jefferson (Young as *Anomodon obtusifolius*) ; Owen (Deam) ; Putnam (Naylor) ; Wayne (Mrs. Haines as *Anomodon obtusifolius*) ; Knox (Deam).

Anomodon rostratus (Hedw.) Schimp.

Crawford (Deam) ; Dearborn (Deam) ; Jefferson (Young as *Leskeia rostrata*) ; Hamilton (Wilson) ; Monroe (Pickett & Nothmagel) ; Montgomery (Barnes in Underwood) ; Owen (Deam, Underwood) ; Putnam (Naylor, Underwood) ; Ripley (Deam) ; Warrick (Deam) ; Wayne (Mrs. Haines) ; Wells (Deam).

Anomodon tristis (Cesat.) Sulliv.

Noble (Deam) ; Putnam (Naylor) ; Wayne (Mrs. Haines).

Thelia asprella (Schimp.) Sulliv.

Jefferson (Young) ; Putnam (Naylor) ; Wayne (Mrs. Haines).

*Dr. Grout states in his "Mosses" that this species is not known from North America.

Thelia hirtella (Schimp.) Sulliv.

Jefferson (Young) ; Monroe (Pickett & Nothmagel) ; Putnam (Naylor) ; Wayne (Mrs. Haines).

HYPNACEAE.

Brachythecium acuminatum (Hedw.) Kindb.

Dearborn (Deam) ; Jefferson (Young as *Hypnum acuminatum*) ; Putnam (Naylor) ; Wayne (Mrs. Haines as *Hypnum acuminatum*).

Brachythecium acutum (Mitt.) Sulliv.

Knox (Deam) ; Gibson (Deam).

Brachythecium campestre B. & S.

Wayne (Mrs. Haines as *Hypnum campestre*).

Brachythecium cyrtophyllum Kindb.

Wells (Deam).

Brachythecium oxycladon (Brid.) J. & S.

Jefferson (Deam, Young as *Hypnum laetum*) ; Monroe (Pickett & Nothnagel) ; Montgomery (Barnes in Underwood as *Hypnum tactum*) ; Putnam (Naylor, Underwood as *Hypnum lactum*) ; Steuben (Deam) ; Wayne (Mrs. Haines as *Hypnum lactum*) ; Wells (Deam).

Brachythecium plumosum (Sw.) B. & S.

Monroe (Pickett & Nothmagel) ; Putnam (Naylor).

Brachythecium rivulare B. & S.

Jefferson (Young as *Hypnum rivulare*).

Brachythecium rutabulum (L.) B. & S.

Monroe (Pickett & Nothnagel) ; Putnam (Underwood as *Hypnum rutabulum*) ; Wayne (Mrs. Haines as *Hypnum rutabulum*).

Brachythecium salebrosum (Hoffm.) B. & S.

Crawford (Deam) ; Monroe (Pickett & Nothmagel) ; Putnam (Allen, Naylor) ; Steuben (Deam) ; Wayne (Mrs. Haines as *Hypnum salebrosum*).

Brachythecium Starkei (Brid.) B. & S.

Monroe (Pickett & Nothmagel).

Bryinia graminicolor (Brid.) Grout.

Putnam (Naylor).

Eurychium hians (Hedw.) J. & S.

Jefferson (Young as *Hypnum hians*) ; Putnam (Naylor) ; Wayne (Mrs. Haines as *Hypnum hians*).

Eurychium serrulatum (Hedw.) Kindb.

Crawford (Deam) ; Dearborn (Deam) ; Grant (Deam) ; Harrison (Deam) ; Jefferson (Young as *Hypnum serrulatum*) ; Lagrange (Deam) ; Monroe (Pickett & Nothmagel) ; Posey (Deam) ; Putnam (Allen, Naylor, Underwood as *Hypnum serrulatum*) ; Ripley (Deam) ; Wayne (Mrs. Haines as *Hypnum serrulatum*).

Eurychium strigosum (Hoffm.) B. & S.

Jefferson (Young as *Hypnum strigosum*) ; Putnam (Naylor) ; Wayne (Mrs. Haines as *Hypnum strigosum*).

Eurychium strigosum robustum Roell.

Jefferson (Deam) ; Putnam (Naylor).

Cirriphyllum Boscii (Sehwaegr.) Grout.

Crawford (Deam) ; Jefferson (Young as *Hypnum Boscii*) ; Monroe (Blatchley in Underwood as *Hypnum Boscii*) ; Putnam (Naylor, Underwood as *Hypnum Boscii*) ; Scott (Deam) ; Switzerland (Deam) ; Wayne (Mrs. Haines as *Hypnum Boscii*).

Homalotheciella subcapillata (Hedw.) Card.

Wayne (Mrs. Haines as *Homalothecium subcapillatum*).

Climaciump Americanum Brid.

Hamilton (Wilson) ; Jefferson (Young) ; Monroe (Pickett & Nothnagel) ; Montgomery (Deam) ; Owen (Deam) ; Putnam (Allen, Naylor, Underwood) ; Wayne (Mrs. Haines) ; Wells (Deam).

Porotrichum Alleghaniense (C.M.) Grout.

Jefferson (Young as *Hypnum Alleghaniense*) ; Putnam (Underwood as *Hypnum Alleghaniense*).

Drepanocladus fluitans (Dill.) Warnst.

Wayne (Mrs. Haines as *Hypnum fluitans*).

Drepanocladus vernicosus (Lindb.) Warnst.

Noble (Deam).

Cratoneuron filicinum (L.) Roth.

Lagrange (Deam) ; Tippecanoe (Deam).

Calliergon cordifolium (Hedw.) Kindb.

Lagrange (Deam) ; Owen (Deam) ; Wayne (Mrs. Haines as *Hypnum cordifolium*).

Campylium chrysophyllum (Brid.) Bryhn.

Monroe (Pickett & Nothnagel) ; Putnam (Naylor) ; Switzerland (Deam).

Campylium hispidulum (Brid.) Mitt.

Crawford (Deam) ; Jefferson (Deam, Young as *Hypnum hispidulum*) ; Montgomery (Deam) ; Owen (Deam) ; Posey (Deam) ; Putnam (Naylor) ; Scott (Deam) ; Steuben (Deam) ; Wayne (Mrs. Haines as *Hypnum hispidulum*) ; Wells (Deam).

Campylium radicale Beauv.

Montgomery (Barnes in Underwood as *Hypnum radicale*).

Amblystegium fluviatile (Sw.) B. & S.

Monroe (Pickett & Nothnagel) ; Montgomery (Barnes in Underwood) ; Putnam (Naylor, Underwood) ; Randolph (Deam) ; Shelby (Deam).

Amblystegium irriguum (Wils.) B. & S.

Putnam (Naylor).

Amblystegium irriguum spinifolium Sch.

Lagrange (Deam) ; Steuben (Deam).

Amblystegium Juratzkanum Schimp.

Crawford (Deam) ; Harrison (Deam) ; Randolph (Deam) ; Steuben (Deam).

Amblystegium Kochii B. & S.

Decatur (Deam) ; Monroe (Pickett & Nothnagel).

Amblystegium orthocladon (P.B.) Kindb.

Monroe (Pickett & Nothnagel) ; Wayne (Mrs. Haines as *Hypnum serpens orthocladon*).

Amblystegium riparium B. & S.

Decatur (Deam); Jefferson (Young as *Hypnum riparium*); Monroe (Pickett and Nothnagel); Putnam (Naylor).

Amblystegium serpens (L.) B. & S.

Crawford (Deam); Dearborn (Deam); Grant (Deam); Hamilton (Wilson as *Hypnum serpens*); Jefferson (Young as *Hypnum serpens*); Lagrange (Deam); Putnam (Naylor, Underwood); Wayne (Mrs. Haines as *Hypnum serpens*).

Amblystegium varium (Hedw.) Lindb.

Lagrange (Deam); Monroe (Pickett & Nothnagel); Jefferson (Deam); Putnam (Naylor); Wayne (Mrs. Haines as *Hypnum varium*); Wells (Deam); Allen (Deam); Whitley (Deam).

Hypnum cupressiforme L.

Hamilton (Wilson); Putnam (Underwood).

Hypnum curvifolium Hedw.

Harrison (Deam); Jefferson (Young); Monroe (Pickett & Nothnagel); Putnam (Allen, Naylor).

Hypnum Haldanianum Grev.

Jefferson (Young); Putnam (Naylor).

Hypnum imponens Hedw.

Jefferson (Young); Martin (Deam); Monroe (Pickett and Nothnagel); Putnam (Naylor); Wayne (Mrs. Haines).

Hypnum Patientiae Lindb.

Putnam (Underwood as *Hypnum arcuatum*).

Hypnum recurvens (Mx.) Schwaegr.

Jefferson (Young).

Hypnum riparium cariosum (?).

Wayne (Mrs. Haines).

Hypnum serpens radicle (?).

Wayne (Mrs. Haines).

Hypnum tenuirostris B. & S.

Jefferson (Young as *Hypnum cylindrocarpum*); Wayne (Mrs. Haines as *Hypnum cylindrocarpum*).

Raphidostegium adnatum (Mx.) B. & S.

Jefferson (Young as *Hypnum adnatum*).

Raphidostegium Carolinianum (C.M.) J. & S.

Crawford (Deam); Monroe (Pickett & Nothnagel); Putnam (Naylor).

Raphidostegium Carolinianum admixtum Sulliv.

Martin (Deam); Monroe (Pickett & Nothnagel); Crawford (Deam).

Plagiothecium denticulatum (L.) B. & S.

Allen (Deam); Putnam (Naylor).

Plagiothecium deplanatum (Sch.) Grout.

Floyd (Deam); Jefferson (Young as *Hypnum deplanatum*); Monroe (Pickett & Nothnagel); Putnam (Naylor); Wayne (Mrs. Haines as *Hypnum deplanatum*).

Plagiothecium elegans (Hook.) Sulliv.

Putnam (Naylor).

Plagiothecium geophilum Aust.

Monroe (Pickett & Nothnagel); Putnam (Naylor).

Plagiothecium Roseanum (Hampe) B. & S.

Putnam (Naylor); Switzerland (Deam).

Plagiothecium sylvaticum (Huds.) B. & S.

Putnam (Naylor).

Amblystegiella adnata (Hedw.) Nichols.

Jefferson (Deam); Montgomery (Deam); Perry (Deam).

Amblystegiella conferoides (Brid.) Loeske.

Perry (Deam).

Entodon brevisetus (H. & W.) J. & S.

Wayne (Mrs. Haines as *Cylindrothecium brevistylum*).

Entodon cladorrhizans (Hedw.) C. M.

Jefferson (Young as *Cylindrothecium cladorrhizans*) ; Monroe (Pickett & Nothnagel) ; Putnam (Allen, Naylor, Underwood) ; Wayne (Mrs. Haines as *Cylindrothecium cladorrhizans*).

Entodon seductrix (Hedw.) C. M.

Clark (Deam) ; Dearborn (Deam) ; Jay (Deam) ; Jefferson (Young as *cylindrothecium seductrix*) ; Lagrange (Deam) ; Monroe (Pickett & Nothnagel) ; Noble (Deam) ; Perry (Deam) ; Putnam (Allen, Naylor, Underwood) ; Warwick Deam) ; Wayne (Mrs. Haines as *Cylindrothecium seductrix*).

Platygyrium repens (Brid.) B. & S.

Harrison (Deam) ; Monroe (Pickett & Nothnagel) ; Perry (Deam) ; Putnam (Allen, Naylor) ; Wayne (Mrs. Haines) ; Wells (Deam).

Pylaisia intricata (Hedw.) R. & C.

Jefferson (Young) ; Putnam (Naylor) ; Wayne (Mrs. Haines as *Pylaisia velutina*).

Pylaisia Schimperi R. & C.

Monroe (Pickett & Nothnagel) ; Wayne (Mrs. Haines as *Pylaisia intricata*).

Pylaisia subdenticulata Schimp.

Wayne (Mrs. Haines as *Pylaisia denticulata*).

LEUCODONTACEAE.

Leucodon brachypus Brid.

Wayne (Mrs. Haines).

Leucodon julaceus (Hedw.) Sulliv.

Jefferson (Young) ; Monroe (Blatchley in Underwood, Pickett & Nothnagel) ; Putnam (Naylor, Underwood) ; Wayne (Mrs. Haines).

Forsstroemia Ohioensis (Sulliv.) Lindb.

Wayne (Mrs. Haines as *Leptodon Ohioense*).

Forsstroemia trichomitria (Hedw.) Lindb.

Jefferson (Young as *Leptodon trichomitron*) ; Monroe (Pickett & Nothnagel) ; Wayne (Mrs. Haines as *Leptodon trichomitron*).

NECKERACEAE.

Neckera pennata (L.) Hedw.

Wayne (Mrs. Haines).

FONTINALACEAE.

Fontinalis Dalecarlica B. & S.

Putnam (Allen).

Fontinalis Lescurii Sulliv.

Putnam (Naylor).