

Maryland Bryophytes
Collected by
Elmer G. Worthley

Edward C. Uebel

Published by the
Maryland Native Plant Society, Inc.

2000

Maryland Bryophytes Collected by Elmer G. Worthley
Edward C. Uebel, editor

The Maryland Native Plant Society uses education, research, and community service to increase awareness and appreciation of native plants and their habitats leading to their conservation and restoration. Membership is open to all who are interested in Maryland's native plants and their habitats. Preserving Maryland's natural heritage, increasing knowledge about native plants, and helping to further the Society's missions are our goals.

The Maryland Native Plant Society sponsors monthly meetings, workshops, field trips, and an annual fall conference.

The Maryland Native Plant Society is a non-profit organization. All gifts to MNPS are tax deductible.

Copyright © 2000 by Maryland Native Plant Society
P.O. Box 4877, Silver Spring, Maryland 20914
www.mdflora.org

The late Dr. Elmer George Worthley resided in Baltimore County, Maryland on Bonita Avenue at Lone Hickory Farm, a farm owned by his mother-in-law, Mrs. Waiva D. Reese. Many of Elmer Worthley's collections of bryophytes were made at Lone Hickory Farm and on the neighboring farm of Upper Melinda, as well as from wooded areas bordering Bonita Avenue such as on the Foster property, and the woods behind the Hunter-Wilson Distillery. Other favorite collecting sites in Baltimore County were on the serpentine barrens of the Soldiers' Delight Natural Environment Area, and near Pretty Boy and Loch Raven Reservoirs. Elmer Worthley worked at the U.S. Army Chemical Center at Edgewood in Harford County and collected extensively at that location. Numerous bryophyte collections came from Maryland State Parks: Cunningham Falls State Park in Frederick Co.; Swallow Falls State Park and Casselman Bridge State Park in Garrett County; Shad Landing State Park and Milburn Landing State Park in Worcester Co. Some of his mosses and hepatics were collected from unique substrates such as the roofs of houses, cement interstices of stone and brick walls, flower pots of greenhouses, and mud flats along the water's edge of reservoirs.

Elmer kept his bryophyte collection in the basement of his house at Lone Hickory Farm until he moved to Two-Below Farm in Carroll County in June 1986, and then he stored it in a disorganized fashion in his garage. In April 1999, all of the bryophytes in his herbarium were sent to the Missouri Botanical Garden and are presently under the supervision of Dr. Bruce Allen.

While Elmer Worthley made many of the determinations on the identity of the specimens, he frequently acquired the assistance from well known Bryologists. The initials of the person making the identification are given for each of the species listed in this manuscript. The initials used are as follows: [FB = Floyd Bartley, HLB = H. L. Blomquist, HSC = Henry S. Conard, HC = Howard Crum, EGF = Elizabeth G. Fisher, MF = Margaret Fulford, HR = Harold Robinson, WDR = William Dean Reese, EGW = Elmer G. Worthley, and WHW = Winona H. Welch].

Since very few of the packets had a collection or identification number, numbers were assigned to each packet; and are shown in parentheses for each collection. In cases where a collection had deteriorated and was discarded, the collection number contains a "strikethrough". (A number of the collections of *Atrichum* species were in bad shape and were discarded.) In many cases, one collection was split into 2 or more packets, and these are indicated by multiple packet numbers.

The classification of the bryophytes used here is similar to the provisional classification scheme posted on the Internet by the Bryophyte Flora of North America Editorial Center. The nonvascular plants are placed in 3 divisions: Anthocerotophyta

(hornworts), Bryophyta (mosses) and Marchantiophyta (hepatics or liverworts). The numbers preceding the families were obtained by numbering every family listed by the BFNA Editorial Committee

For the most part, the data presented here were obtained by copying the notes from the collection packets just as it was written. Each collection is listed under the appropriate species, with the Maryland county where it was collected, the location of the collection, the substrate on which it was growing, the plants (both Bryophytes and other families of plants) growing nearby and associated with the collection, the date of collection, the collection number, and the initial of the person making the identification.

Dr. Worthley's herbarium contained 15 collections of hornworts, with 4 species; 1138 collections of mosses with 191 species; and 291 collections of hepatics with 56 species.

MARYLAND HORNWORTS COLLECTED BY ELMER WORTHLEY

ANTHOCEROTACEAE *Anthoceros crispulus* (Mont.) Douin [**Baltimore Co.:** ****Carl F. Francis & Son Greenhouses, 8732 Old Harford Road and Satyr Hill Road, growing on soil in pots of azalea cuttings, associated with *Trematodon longicollis*, 22 Mar 1963 (A1) (A2) EGW; ****Lone Hickory Farm, in a moist clay ditch along Bonita Ave., growing with *Anthoceros laevis*, *Notothylas orbicularis* and *Fossombronia wondraczekii*, 2 Oct 1966 (A3) EGW; **on soil of a roadside ditch with *Fossombronia* sp., 21 Jul 1968 (A4) EGW] [**Carroll Co.:** ****Liberty Reservoir, on the northwest slope of Little Morgan Mill Run, 10 Nov 1969 (A5) EGW].

Anthoceros laevis Linnaeus [**Baltimore Co.:** ****Lone Hickory Farm, growing in a ditch beside the road near the horse pond, with *Notothylas orbicularis*, 17 Oct 1965 (A8) EGW; **on bare soil of a ditch among grasses and sedges, 9 Oct 1966 (A9) EGW] [**Carroll Co.:** ****Liberty Reservoir near Mineral Hill Road, on soil in a seepage from a spring about 60 feet from the water level of the reservoir, 24 Oct 1964 (A7) EGW] [**Garrett Co.:** ****Carey Run Sanctuary, on soil on the side of a small stream in a meadow, growing with *Odontoschisma prostratum* and *Philonotis fontana*, 5 Oct 1963 (A6) HR] [**Harford Co.:** ****Route #40, about 100 yards northeast of the overpass at Edgewood, growing near the edge of a tributary of Lauderick Creek off Bush River, on soil in a woods of Sycamore, Box Elder, White Ash and Black Willow, 11 Oct 1967 (A10) EGW].

Anthoceros punctatus Linnaeus [**Baltimore Co.:** ****Greenhouse of C. Francis & Son at 8732 Old Harford Road and Satyr Hill Road, on soil in the greenhouse, growing with *Trematodon lonicollis*, 13 Feb 1963 (A11) HR; **on soil in pots of Azalea cuttings, 22 Mar 1963 (A12) EGW; **growing on potting soil of rose flats, 17 Apr 1966 (A14) EGW; ****Lone Hickory Farm, on clay soil on a bank of a road drainage ditch, associated with *Physcomitrium pyriforme*, 11 Dec 1965 (A13) EGW; **on bare soil at the lower end of an apple orchard, growing with *Fossombronia* sp., *Notothylas* sp. and *Ditrichum pusillum*, 21 Oct 1973 (A15) EGW].

Notothylas orbicularis (Schwein) Sullivant [**Baltimore Co.:** ****Bonita Ave., across from Kendig's Mill Road, growing on bare clay soil amongst a thin scattering of grasses, mosses and *Anthoceros crispulus*, 2 Oct 1966 (A18) EGW].

MARYLAND MOSSES COLLECTED BY ELMER WORTHLEY

1. **SPHAGNACEAE** [Sphagnales] *Sphagnum capillaceum* (Ehrhart) Hedwig [**Anne Arundel Co.**: ****Angel's Bog, growing in association with Leatherleaf, Purple Pitcherplant and Largefruited Cranberry, 8 Nov 1959 (3171) (3175) EGW] [**Garrett Co.**: ****Swallow Falls State Park, on soil along a path in a hemlock woods about 200 yards above the Falls, 28 Sep 1963 (3176) (3178) EGW].

Sphagnum capillifolium var. *tenellum* (Schimper) Crum [**Baltimore Co.**: ****Soldiers' Delight, about 50 feet from Holy Grass but on the other side of the brook, among clumps of *Andropogon* and Indian grass, 29 Jul 1959 (3177) (3180) (3181) HLB; **among grass on a stream bank in an open sunny area near *Phlox subulata* and *Hierochloe odorata*, 2 Oct 1965 (3179) EGW].

Sphagnum compactum de Candolle *ex* Lamark & de Candolle [**Baltimore Co.**: ****Lone Hickory Farm, on soil in a swamp next to the woods, 27 Oct 1963 (3188) (3189) HR] [**Garrett Co.**: ****Swallow Falls State Park, on rocky ledges above the falls, 28 Sep 1963 (3194) EGW]. [**Harford Co.**: ****Near Mt. Road, in a rut of the road in a seepage swamp under Red Maple, Sour Gum and White Oak, 15 Feb 1960 (3191) (3192) (3193) (3196) (3197) (3198) HLB; ****Army Chemical Center, on soil at the edge of a small woodland pool, 1 May 1961 (3183) (3186) EGW; ****Edgewood, in woods along the Bush River in a depression of moist soil in an oak, hickory, Red Gum and Sour Gum woods, associated with *Aulacomnium palustre*, 8 May 1962 (3184) (3185) (3190) EGW]

Sphagnum fimbriatum Wilson *ex* Wilson & J. D. Hooker [**Allegany Co.**: ****Near Route 40, on soil in a bog, 10 Oct 1965 (3203) EGW].

Sphagnum girgensohnii Russell [**Garrett Co.**: ****Swallow Falls State Park, on soil under Possum-haw and Witch Hazel, 28 Sep 1963 (3210) EGW; ****Casselman Bridge State Park, on soil near the Casselman River, 26 Sep 1964 (3211) (3212) (3213) (3214) EGW].

Sphagnum imbricatum Hornschuch *ex* Russell [**Baltimore Co.**: ****Upper Melinda, on soil of a small stream bank, 13 May 1959 (3230) (3231) (3232) (3233) EGW; ****Frank Price's woods, on swampy soil in a Red Maple, Tulip-tree woods, 15 Nov 1959 (3226) (3227) (3228) (3229) EGW; **10 Feb 1963 (3225) EGW, 31 Oct 1965 (3220) EGW;

****Woods near Hunter-Wilson Distillery, Bonita Ave., Owings Mills, on wet soil at the base of a Red Maple and among tussocks of *Carex stricta*, 16 Nov 1963 (3224) HR; **24 Sep 1964 (3218) HR; ****Park Heights Avenue, on moist soil near a small stream, 6 Jun 1965 (3219) EGW; ****Pretty Boy Reservoir, on soil near the edge of the shore line, 21 Nov 1965 (3221) EGW] [**Garrett Co.:** ****Casselman Bridge State Park, on soil near the river, 26 Sep 1964 (3222) EGW] [**Worcester Co.:** ****Milburn Landing State Park, on swampy soil under *Ilex opaca*, and *Clethra alnifolia*, 24 Jul 1965 (3223) EGW].

Sphagnum palustre Linnaeus [**Allegany Co.:** ****Near Route 40, on soil in a bog, 10 Oct 1965 (3239) (3240)] [**Baltimore Co.:** ****Lone Hickory Farm, in a swampy area adjoining a mesophytic woodland, 21 May 1961 (2012) WDR; ****Kendig's Mill Road, on soil in a swampy Red Maple woods, 26 Oct 1963 (3241) HR; ****Estate of Daniel Brewster on Dover Road, on soil in a woods above the falls, 6 Jul 1964 (3237) (3238) EGW].

Sphagnum quinquefarium (Lindberg ex Braithwaite) Warnstorf [**Baltimore Co.:** ****Woods of Frank Price at Bonita Ave. and Gwynnbrook Ave., on moist soil along a small rill in a Red Maple and Tulip-tree woods, 15 Nov 1959 (3244) (3245) EGW].

Sphagnum recurvum Palisot de Beauvois [**Anne Arundel Co.:** ****Angel's Bog, associated with Leatherleaf, Purple Pitcherplant and Large-fruited Cranberry, 8 Nov 1959 (3246) EGW; **19 Sep 1963 (3247) EGW; ****Severn Run, on acid soil under *Clethra alnifolia*, 16 Sep 1962 (3248) HLB].

Sphagnum subsecundum Nees ex Sturm [**Anne Arundel Co.:** ****Severn Run, growing in acid soil in association with *Lygodium palmatum*, *Uniola laxa*, *Mnium cuspidatum* and *Ilex opaca*, 16 Sep 1962 (3252) (3253) (3254) (3255) (3256) HLB].

4. ANDREAEACEAE [Andreaeales] *Andreaea rothii* Weber & Mohr [**Baltimore Co.:** ****Gunpowder River at Falls Road, in a woodland on rock where water drips down, 7 Feb 1960 (2306) EGF, **on Wissahickon mica schist ledges on the bank of the river, 28 Apr 1962 (2308) EGW].

5. TETRAPHIDACEAE [Tetraphidales] *Tetraphis pellucida* Hedwig [**Allegany Co.:** ****Green Ridge State Forest, 3-4 May 1975 (2411) EGW] [**Baltimore Co.:** ****Greenspring Avenue, on rocks of a small cliff, 13 Aug 1957 (3289) EGW; **on soil

near a small stream, 14 Aug 1959 (2642) WDR; **on ledges of a small falls, 9 Jan 1966 (2141) EGW; **on a rotten log, 16 Mar 1966 (2917) EGW; **on soil of a wooded stream, growing with *Odontoschisma prostratum*, *Diplophyllum apiculatum* and *Dicranella heterophylla*, 6 Jul 1968 (2142) EGW; ****Padonia Road, on the bank of a stream, 23 Jan 1960 (2547) EGF; ****Soldiers' Delight, on the underside of a Wissahickon schist ledge beside a woods' road, 2 Mar 1968 (2919) EGW; ****Park Heights Ave., on a rotting stump base in a mesophytic woods, 22 Feb 1975 (2119) EGW] [**Cecil Co.:** ****Route 40 about 4.5 miles north of the Susquehanna Bridge, on soil in a mesophytic woods in association with White Oak, Chestnut Oak and *Vaccinium corymbosum*, 7 Dec 1962 (2143) EGW] [**Garrett Co.:** ****Swallow Falls State Park, on a rotting hemlock log, 14 Jun 1958 (2543) EGW; **rotting hemlock log 1.5 feet in diameter, 28 Sep 1963 (2140) (2145) EGW; ****Carey Run Sanctuary, on rotting hemlock log, 5 Oct 1963 (2139) EGW] [**Wicomico Co.:** ****Pocomoke Swamp, 12 May 1962 (2918) WDR].

6. POLYTRICHACEAE [Polytrichales] *Atrichum angustatum* (Bridel) Bruch, Schimper & GümbeL [**Baltimore Co.:** ****Frank Price's woods, on soil under a Tulip-tree, 15 Nov 1959 (2339) EGW; ****Paper Mill Road, on soil under Spicebush, Red Maple and Black Walnut, 29 Feb 1960 (2341) HSC; ****Lone Hickory Farm, on soil in an open field, 4 Apr 1964 (2345) EGW; **growing inside the entrance of a groundhog hole, 8 Apr 1967 (2344) EGW; ****Soldiers Delight, in association with *Ceratodon purpureus*, 14 Mar 1965 (2286) HR; ****Greenspring Ave., on a bare patch of soil under a Tulip-tree in a woodland, 13 Mar 1966 (2311) EGW] [**Harford Co.:** ****Army Chemical Center, on soil under Red Gum, Red Maple and Sour Gum, 17 Sep 1959 (2343) EGW].

Atrichum crispum (James) Sullivant [**Baltimore Co.:** ****Lone Hickory Farm, on soil of a stream bank in a woods of Red Maple and Pin Oak, 30 Aug 1959 (2342) EGW; ****Pretty Boy Reservoir at Possum Cove, on a freshly disturbed clay bank of a stream, 29 Nov 1962 (2335) EGF] [**Harford Co.:** ****Edgewood Arsenal, on soil in a woods along a small rill, 23 Apr 1968 (2332) EGW; **back of Bldg. 3330, on soil in moist swale with *Uniola laxa*, 23 Oct 1968 (2333) EGW] [**Garrett Co.:** ****Swallow Falls State Park, on rocky ledges above the falls, 28 Sep 1963 (2336) HR] [**Prince George's Co.:** ****Beltsville Agricultural Research Center, on soil on the bank of a small rill in a seepage area of a Coastal Plain swamp woods, 8 Feb 1965 (2330) HR; ****Patuxent Wildlife Refuge, on soil, 27 Apr 1958 (3270) EGW] [**Wicomico Co.:** ****Whaleysville, on a rotting log under Bald Cypress, 10 May 1964 (2331) EGW; **9 May 1965 (2328) EGW].

Atrichum undulatum (Hedwig) Palisot de Beauvois [**Baltimore Co.:** ****Lone Hickory Farm, on low moist ground, associated with *Leucobryum glaucum*, 17 Oct 1958 (3084) EGW; **on shady hillside, associated with *Panicum clandestinum*, 15 May 1961 (1979) EGW; **near tile inlet of trout pond, 6 Jun 1961 (1980) EGW; ****Near Dolfield Road, on ledges of mica schist, 27 Jul 1959 (2337) EGW; ****G. P. Mahoney's woods near Bonita Avenue, on soil in a Red Maple swamp, 17 Nov 1963 (2334) HR; ****Bonita Avenue, among grass in an open field, 3 Apr 1966 (2314) EGW] [**Frederick Co.:** ****Cunningham Falls State Park, on rock, associated with Hop Hornbeam, Black Birch and Canada Hemlock, 30 Jul 1961 (1981) EGW] [**Garrett Co.:** ****Swallow Falls State Park, on rocky ledges above the falls, 28 Sep 1963 (3368) HR; ****Carey Run Sanctuary, on soil at the edge of a small stream in a meadow, 5 Oct 1963 (2340) HR; **moist soil near a brook, 9 Oct 1964 (2338) HR].

Pogonatum pensilvanicum (Hedwig) Palisot de Beauvois [**Baltimore Co.:** ****Lone Hickory Farm, on the bank of a stream in the upper swamp, 13 Aug 1957 (3290) (3291) EGW; ****Piney Grove Road and Longnecker Road, on bare soil along the side of a woods' road, 24 Oct 1965 (2461) EGW; ****Upper Melinda, on the bank of a small rill in the woods, 9 Jan 1966 (2554) EGW; ****Lake Roland, on bare soil among clumps of *Danthonia spicata*, *Agrostis perennans* and *Carex pensylvanica*, 3 Nov 1963 (1942) (2438) EGW; on bare soil in the trolley museum area, 14 Sep 1969 (2536) EGW; ****Bonita Avenue, on bare soil of a ditch at the edge of the road, 21 Oct 1973 (3129) Jean Worthley] [**Harford Co.:** ****Army Chemical Center, on soil under Red Maple, Red Gum and Sour Gum, 17 Sep 1959 (2603) EGW] [**Garrett Co.:** ****Swallow Falls State Park, on bare soil along the roadside, associated with *Fissidens*, 28 Sep 1963 (2436) EGW].

Polytrichum commune Hedwig [**Baltimore Co.:** ****Upper Melinda, growing along a road cut in mesophytic woods with *Dicranum scoparium* and *Dicranella heteromalla*, 31 May 1958 (3328) EGW; ****Lone Hickory Farm, on soil in a mesophytic woodland of oak, hickory and Red Maple, 17 May 1961 (2008) EGW] [**Cecil Co.:** ****Elk Neck State Park, growing in sandy loam of an open area of a road cut, 9 Jul 1965 (1855) (1857) EGW] [**Garrett Co.:** ****Swallow Falls, on Rocky ledges above the falls, 28 Sep 1963 (1858) EGW; ****Casselman State Park, on soil under White Oaks, 26 Sep 1964 (1869) EGW] [**Harford Co.:** ****Edgewood Arsenal, on soil in a frondose woods of Black Gum, Willow Oak, Spanish Oak, Black Oak and Pin Oak, 1 Mar 1965 (1865) EGW; **in open

swampy land under a power line in the back of building #3330, associated with *Sphagnum*, 8 Jun 1966 (1859) EGW].

Polytrichum commune var. *perigoniale* (Michaux) Hampe [**Baltimore Co.:** ****Lone Hickory Farm, on rather dry soil in an oak-hickory woods, 27 Jun 1959 (1864) EGW].

Polytrichum juniperinum Hedwig [**Baltimore Co.:** ****Soldiers' Delight, on soil at the base of *Andropogon scoparius* clumps in an open field, 19 Apr 1966 (1863) EGW; ****Soldiers' Delight, on soil on the bank of a small stream near Holygrass, 19 Apr 1966 (1863) (1890) (1891) EGW; **along Chimney Branch brook, growing with *Frullania eboracensis*, *Lophocolea heterophylla*, *Polytrichum ohioense* and *Platygyrium repens*, 28 Jan 1968 (1861) EGW] [**Washington Co.:** ****100 yards from the Potomac River, on open dry soil along a woodland road, 1959 (1848) EGW].

Polytrichum ohioense Renauld & Cardot [**Allegany Co.:** ****Near Route 40, 1 mile east of Shipway's Motel, on soil, 10 Oct 1965 (2555) EGW] [**Baltimore Co.:** ****Soldiers' Delight, on soil on the bank of a small stream in the serpentine barrens, 15 Aug 1959 (1878) EGW; ****Upper Melinda, on a rock ledge with less than ½ inch of soil, 8 Oct 1959 (1896) EGW; ****Hillside Road, ½ mile from Falls Road, on bare soil of a roadside bank, 12 Mar 1966 (1004) EGW] [**Carroll Co.:** ****Deer Park Road near power lines and about 200 yards from the bridge over Liberty Reservoir, on clay loam, 25 May 1959 (2471) EGW; ****Off Hughes Road, in a mesophytic woodland of Black Oak, Red Oak, Red Maple and Witch Hazel, 17 May 1961 (2009) EGW] [**Frederick Co.:** ****Cunningham Falls State Park, on rock, associated with Hop Hornbeam, Canada Hemlock, Black Birch and Beech, 30 Jul 1961 (2010) (2518) EGW] [**Garrett Co.:** ****Swallow Falls State Park, on soil under *Quercus alba*, *Tsuga canadensis* and *Viburnum acerifolium*, 28 Sep 1963 (1892) EGW] [**Harford Co.:** ****Green's Road, on the ledges of "Castle Rock" beside Deer Creek in a woods, 9 Jul 1959 (2557) EGW; ****Army Chemical Center, on soil under Red Gum, Red Maple and Willow Oak, 17 Sep 1959 (1860) EGW; ****Edgewood Arsenal, on soil, associated with *Poa pratensis* and *Juncus tenuis*, 26 Jun 1963 (1862) EGW; ****Willoughby Beach Road, in a mesophytic frondose woods, 7 Dec 1967 (1893) EGW]. [**Howard Co.:** ****Daniels Road along the Patapsco River and Dam, on a thin layer of dry soil on the ledges along the road, 29 Sep 1962 (1894) EGW] [**Washington Co.:** ****Mt. Aetna Road and Lena Road near Smithsburg, in a meophytic frondose woods of oak, hickory, Spicebush and Tulip-tree, 27

Jul 1969, (2575) EGW] [**Worcester Co.:** ****West Ocean City, on a rotting stump, 15 May 1966 (1897) EGW].

7. **BUXBAUMIACEAE** [Buxbaumiales] *Buxbaumia aphylla* Hedwig [**Allegany Co.:** ****Green Ridge State Forest, Carpenter Road, on soil of a cleared road bank in a mixed mesophytic, frondose woods, 30 May 1971 (2676) (3099) (3100) (3101) EGW].

8. **FUNARIACEAE** [Funariales] *Aphanorrhagma serratum* (W. J. Hooker & Wilson ex Drummond) Sullivant [**Baltimore Co.:** ****Corner of Bonita Ave. and Gwynnbrook Ave, on bare soil of a cornfield, growing with *Ephemerum* sp., *Bryum argenteum*, *Weissia controversa* and *Riccia* sp., 1972 (2309) EGW] [**Harford Co.:** ****Edgewood, near the edge of the tributary of Lauderick Creek off Bush River, on silty soil, 11 Oct 1967 (2347) EGW].

Funaria flavicans Michaux [**Baltimore Co.:** ****Between Babikov Road and Philadelphia Road, on a bare patch of soil under Red Maple and White Oak, 13 Apr 1962 (2372) EGW; ****Soldiers' Delight, on bare soil among the bases of *Andropogon scoparius*, 14 Mar 1965 (2369) EGW; ****Carroll Island, first road to the left after entering main gate, on soil along the edges of a dirt road in the open, 26 Mar 1975 (2387) EGW]. [**Harford Co.:** ****U.S. Army Chemical Center, on a moist bare spot at the edge of a lawn, 2 May 1962 (2382) EGW; ****Edgewood Arsenal, 40th St. and 38th St., on recently bulldozed soil in an open bare space in the sun, 17 Apr 1973 (2378) EGW].

Funaria hygrometrica Hedwig [**Baltimore City.:** ****Druid Hill Park near the zoo, growing on soil at the site of an old campfire with bits of charred wood, 10 Apr 1960 (2391) EGW] [**Baltimore Co.:** ****Paper Mill Road, on ¾ inch of soil on an abandoned cement road leading into Loch Raven Reservoir, 22 Sep 1959 (2380) EGW; ****G. P. Mahoney farm on Bonita Ave., on bare soil of an open field among weeds, 5 Apr 1964 (2385) HR; ****Western Maryland Railroad near Kendig's Mill Road, on open soil along the railroad, associated with *Ceratodon purpureus*, 12 Apr 1964 (2375) HR; ****Timonium Fair Grounds, in cement joints of crevices of a stone wall, growing with *Ceratodon purpureus*, *Tortula muralis* and *Bryum caespiticium*, 14 Nov 1966 (2379) EGW; ****Soldiers' Delight, on soil of an old campfire, growing with *Ceratodon purpureus*, 13 Oct 1967 (2386) EGW; ****Farm at Bond Road off Md.#439, on mortar in the crevices of a rock barn foundation, growing with *Tortula muralis*, *Ceratodon purpureus* and *Bryum caespiticium*, 19 Nov 1967 (2353) EGW; ****Pretty Boy Reservoir,

wooded slope above Grave Run, on bare patches of soil beside the road, 12 May 1968 (2388) EGW; ****Bonita Ave., on the cement crevices of an old foundation of a torn down farm house, 1 Jan 1973 (2392) EGW; ****Bonita Ave., at the site of the torn down Hunter-Wilson Distillery buildings, on soil in an open area, 11 Apr 1984 (3117) EGW]. [**Carroll Co.:** ****Carroll Gardens in Westminster, on soil in pots in the greenhouse, growing with *Leptobryum pyriforme*, *Bryum argenteum* and *Poa annua*, 1 Nov 1969 (2381) EGW] [**Frederick Co.:** ****Fort Detrick, on dry, gravelly soil at edge of parking lot, 28 May 1963 (2377) EGW] [**Harford Co.:** ****Rock Run Road near Level, on the stone wall of an old barn that had burned down, growing with Ebony Spleenwort, *Setaria viridis* and *Cystopteris fragilis*, 20 Nov 1960 (2566) EGW; ****Army Chemical Center at Edgewood, on a bare spot of soil among *Danthonia spicata* in a woods, 26 Jun 1961 (2390) EGW; **on soil at the edge of a lawn, associated with *Physcomitrium turbinatum* and lawn grasses, 9 Apr 1962 (2389) EGW; **behind the Medical Research Laboratory, on bare soil beside the road, growing with *Poa pratensis*, 29 May 1969 (2376) EGW; ****Vacant Lot near the Sinclair Gas Station in Edgewood, on bare sandy soil, associated with *Cassia nictitans*, *Panicum clandestinum*, *Andropogon virginicus* and *Aster pilosus*, 27 May 1964 (2374); **5 Jun 1964 (2384) EGW].

Physcomitrium immersum Sullivant [**Baltimore Co.:** ****Pretty Boy Reservoir, Possum Cove at Bollingers Road, on a bare, dried mud shore, 21 Nov 1965 (1853) (2500) EGW].

Physcomitrium pyriforme (Hedwig) Hampe [**Baltimore Co.:** ****Lone Hickory Farm, along a wire fence of a flower garden, 6 Apr 1959 (2501) EGW; **on soil at the edge of a garden, associated with Blue Grass, Orchard Grass and *Rhynchostegium serrulatum*, 24 Apr 1961 (2003) EGW; **on poor soil on a hillside, associated with *Panicum clandestinum*, 15 May 1961 (2002) EGW; **on soil near the trout pond, growing with other mosses, 6 Jun 1961 (2004) (2006) EGW; **on bare patches of soil in an open field, with *Weissia controversa*, *Pleuridium subulatum* and *Astomum muehlenbergianum*, 21 Apr 1966 (2758) EGW; **in an open field on a slope facing a trout pond, 8 Apr 1967 (2505) EGW; **on soil in an apple orchard, 15 May 1971 (2504) EGW; ****"The Century Greenhouse", Reisterstown Road and Roaches Lane, growing on soil underneath the greenhouse benches with the liverwort, *Lunularia cruciata*, 1 Jun 1959 (2508) EGW; ****Soldiers' Delight, on soil in a bare spot among *Andropogon scoparius*, 3 Jun 1959 (2877) EGW; ****G. P. Mahoney Farm on Bonita Ave., on bare soil in an open field among weeds, 5 Apr 1964 (1836) EGW; ****Silver Spring Road near Magnolia Ave., on bare patches of soil along the road bank, 15 Apr 1966 (2533) EGW; ****Rosewood State

Hospital in Owings Mills, on bare patches of soil above a steampipe, partially grown in with *Erodium cicutarium* and *Draba verna*, 30 Mar 1969 (2503) EGW] [**Calvert Co.:** ****Y.M.C.A. Camp Mohawk in Huntingtown, on soil among Virginia Pines and *Quercus falcata*, 11 Jun 1966 (2474) EGW] [**Harford Co.:** ****Edgewood, on muddy soil at edge of a lawn, associated with *Funaria hygrometrica* and lawn grass, 9 Apr 1962 (2509) EGW] [**St. Mary's Co.:** Sotterley Plantation in Hollywood, on bark of *Ulmus americana*, 26 Apr 1969, (2903) EGW].

11. **EPHEMERACEAE** [Funariales] *Ephemerum cohaerens* (Hedwig) Hampe [**Baltimore Co.:** ****Moore's Branch in Rockland, on sandy soil in a lowland, 5 Nov 1961 (2769) EGF].

Ephemerum crassinervium (Schwaegrichen) Hampe [**Kent Co.:** ****Kent Island, on soil in a corn field at the southern end of the island, 2 Oct 1965 (2770) EGF].

Ephemerum serratum (Hedwig) Hampe [**Baltimore Co.:** ****Pretty Boy Reservoir at Possum Cove, on a mud bank where the water had receded, growing with an abundance of *Physcomitrium immersum*, 21 Nov. 1965 (2773) (2774) EGW] [**Harford Co.:** ****Near the edge of the tributary of Lauderick Creek off Bush River, 11 Oct 1967 (2771) EGW].

Ephemerum sinulosum Bruch & Schimper *ex* Schimper [**Baltimore Co.:** ****Pretty Boy Reservoir, Possum Cove near Bollinger's Road, on mud flats produced by the receded water of the reservoir, 21 Nov 1965 (2775) EGW; **5 March 1966 (2772) HR].

Micromitrium austinii Austin [**Baltimore Co.:** **** Pretty Boy Reservoir, Possum Cove near Bollinger's Road, on the mud flats of the reservoir, and growing with *Micromitrium megalosporum*, *Physcomitrium immersum*, *Riccia frostii* and *Riccia fluitans*, 21 Nov 1965 (2233) HR].

Micromitrium megalosporum Austin [**Baltimore Co.:** **** Pretty Boy Reservoir, Possum Cove near Bollinger's Road, on mud flats produced by receded water, 21 Nov 1965 (2234) EGW].

16. **DIPHYSICIACEAE** [Diphysciales] *Diphyscium foliosum* (Hedwig) Mohr [**Baltimore Co.:** ****Bond Ave. near Timber Grove Road, on disturbed soil of a thrown down tree, 26 Feb 1961 (2567) EGW; ****Goucher College Campus in Towson, on soil in

a mesophytic woods of White Oak, Mockernut Hickory, etc., 21 Mar 1963 (2989) EGW; ****Dolfield Road, Owings Mills, on soil on the ledges of Wissahickon schist in a woods of White Oak, Black Oak, Chestnut Oak, Mockernut Hickory and Red Maple, 21 Apr 1968 (2988) EGW; ****Pretty Boy Reservoir, on the slope above Grave Run, on the bark at the base of a Red Maple along a small woodland rill, 12 May 1968 (2987) EGW; ****Upper Melinda, on the soil of a road bank on Bonita Ave. in a woods of Beech, Tulip-tree, Black Gum and White Oak, 26 Jun 1971 (2986) EGW; ****Soldiers' Delight, on soil of a wooded hillside, growing with *Diplophyllum apiculatum*, 6 Apr 1983 (2894) EGW] [**Harford Co.:** ****Morse Road near Winter's Run, on soil in a hillside woods of White Oak and Beech, 11 Mar 1966 (1003) EGW; ****Atkisson Reservoir, on soil at the base of a Tulip-tree, 2 Mar 1982 (3114) EGW] [**Washington Co.:** ****Mt. Aetna Youth Camp, on soil at the edge of an oak, hickory, Spicebush and Tulip-tree woods, 27 Jul 1969 (2578) EGW].

17. **POTTIACEAE** [Pottiales] *Acaulon muticum* var. *rufescens* (Jaeger) Crum [**Carroll Co.:** ****Liberty Reservoir Boat Dock, on soil in bare spots of a lawn, 15 Dec 1965 (2312) EGF].

Astomum muhlenbergianum (Swartz) Grout [**Baltimore Co.:** ****Lone Hickory Farm, growing in open patches of soil among grasses, associated with *Weissia controversa* and *Pleuridium subulatum*, 12 Apr 1964 (2277) EGW; **on open patches of soil among grasses, growing with *Weissia controversa*, *Physcomitrium pyriforme* and *Pleuridium subulatum*, 21 Apr 1966 (2763) EGW; **8 Apr 1967 (2278) EGW; ****Foster's Pond, Worthington Ave., on a dried mud bank left by a receding pond, growing among Clotbur, grasses and sedges, 9 Jan 1966 (2279) (2541) (2549) (2556) HR; ****Franklin Senior High School in Reisterstown, on bare patches of soil in a lawn, growing with *Bryum argenteum* and *Phascum cuspidatum*, 3 Mar 1966 (1007) (2281) EGW; ****Park Heights Ave., driveway of H. Pumpian, growing on bare places in a lawn with *Ceratodon purpureus*, *Pleuridium subulatum*, *Rhynchostegium serrulatum* and *Haplocladium microphyllum*, 8 Apr 1968 (2280) EGW] [**Carroll Co.:** ****Liberty Reservoir Boat Dock, on soil in bare spots of a lawn, 15 Dec 1965 (2867) EGF].

Barbula fallax Hedwig [**Baltimore Co.:** ****All Saint's Church in Reisterstown, on soil beside the church among Crabgrass in a shady spot, 15 Nov 1963 (2678) HR].

Barbula unguiculata Hedwig [**Baltimore Co.:** ****Ebenezer Road in Chase, on soil under White Oak and Black Gum on a Coastal Plain, 7 Feb 1961 (2679) EGW; ****Bonita Ave., on soil along the edge of a woods road, among grasses, 16 Nov 1963 (2659) (2660) HR; ****Lone Hickory Farm, on soil on the side of road, 9 Mar 1968 (2661) EGW; **on open batches of soil along a farm road in front of the barn, 20 Apr 1968 (2664) (2764) EGW; **on bare soil under an apple tree by the driveway, 5 Apr 1970 (2693) EGW; **5 Mar 1970 (2765) EGW; ****Phoenix Road about 125 feet from Paper Mill Road, on a steep roadside bank growing near lots of *Weissia controversa* and *Physcomitrium pyriforme*, 2 Mar 1985 (2908) EGW] [**Harford Co.:** ****Edgewood, on soil, 8 Apr 1958 (3273) FB; **Skipper's Point Road, on soil in a woods of Red Gum and White Oak, 18 Apr 1963 (2663) EGW].

Phascum cuspidatum Hedwig [**Baltimore Co.:** ****Lone Hickory Farm, on soil in an open field, associated with *Bryum capillare*, *Brachythecium oxycladon*, *Amblystegium varium*, *Atrichum angustatum* and *Dicranella heteromalla*, 4 Apr 1964 (2494) HR; ****Lake Roland at the upper end, on soil at the edge of a lawn in the shade of small *Acer negundo* trees, 31 Dec 1965 (2493) EGF; ****Franklin Senior High School in Reisterstown, on bare soil, associated with *Astomum muehlenbergianum*, 3 Mar 1966 (3126) EGW].

Tortella humilis (Hedwig) Jennings [**Allegheny Co.:** ****Town Hill Mountain, elevation 1595 feet, on soil along a road cut, 29 Sep 1963 (2104) (2105) EGW] [**Baltimore Co.:** ****Soldiers' Delight, on the bark at the base of a *Quercus stellata*, from ground level up the trunk to a height of 10 inches, growing with *Tortella humilis*, *Porella platyphylloidea* and *Anomodon tristis*, 15 Aug 1959 (2921) EGW; ****Gwynnbrook Ave., on stone masonry of a small bridge near the railroad, associated with *Leskea gracilescens*, *Bryum argenteum* and *Grimmia apocarpa*, 28 Jul 1961 (2922) EGW; ****Ashland Furnace in Cockeysville, on soil in an open area on a slag pile, 22 Dec 1965 (2923) EGF] [**Harford Co.:** ****Edgewood, Army Chemical Center, on the bark of *Liquidambar styraciflua* from ground level up to about 3 feet, 8 May 1962 (2100) EGW] [**Wicomico Co.:** ****Pocomoke Swamp, on a rotting log, 12 May 1962 (2107) WDR].

Tortula muralis Hedwig [**Anne Arundel Co.:** ****Annapolis, West St., between the crevices or joints of an old stone wall, associated with *Bryum argenteum*, 12 Feb 1969 (2931) EGW] [**Baltimore City:** ****Kittery Lane, ½ block south of University Parkway, on a brick and mortar wall, 6 May 1958 (3343) EGW; ****Wyman Park, on a rock

retaining wall along the bottom of the park, growing on old cement in the crevices between the rocks of the wall, 7 Apr 1973 (2158) EGW] [**Baltimore Co.:** ****Seiler's Road, on a stone barn foundation, 11 Nov 1959 (2112) EGW; ****Reisterstown Road, Owings Mills, on the cemented crevices of a stone wall near Marion's Grocery, 27 Mar 1965 (2928) EGW; ****Soldiers' Delight, on the vertical face of a cement bridge over a rill near *Gentiana crinita*, 25 Sep 1965 (2924) EGW; **on mortar of the stone walls of Red Dog Lodge, associated with *Bryum argenteum*, 30 Dec 1967 (2933) EGW; **on stone fireplace of Red Dog Lodge, growing with *Platygyrium repens*, *Grimmia apocarpa*, *Hedwigia ciliata* and *Entodon cladorrhizans*, 6 May 1973 (2157) EGW; **on the rock interstices of cement on a fireplace chimney, growing with *Grimmia apocarpa*, *Entodon julaceus*, *Caloplaca ferracissima* and *Acarospora fuscata*, 8 Jan 1984 (2425) EGW; ****Timonium State Fair Grounds, on the cement crevices of a stone wall, associated with *Ceratodon purpureus*, *Funaria hygrometrica* and *Bryum caespiticium*, 14 Nov 1965 (2929) EGW; ****Bond Road off Md. #439, on the mortar of a stone barn foundation, 19 Nov 1967 (2925) EGW; ****Dulaney Valley Road, in and around the Bosley Road Quarry, on marble rocks with a thin covering of soil; 10 Mar 1968 (2108) (2109) (2110) (2111) (2926) (2927) (2934) EGW; ****Foster's estate at Bonita Ave. and Worthington Ave., on cement in the crevices of a stone wall beside the house, growing with *Orthotrichum strangulatum*, *Tortula muralis* and *Anomodon attenuatus*, 23 Dec 1972 (2136) (2932) EGW; ****Reisterstown, Cockey's Mill Road, on a brick cement wall next to the Library, 25 May 1977 (2065) (3144) EGW; ****Reisterstown Methodist Cemetery, on a brick wall surrounding the cemetery, growing with *Candelariella vitellina*, *Lecanora dispersa*, *Caloplaca ferricissima*, *Caloplaca citrina* and *Phaeophyscia adiaetola*, 6 Mar 1984 (3143) EGW] [**Carroll Co.:** ****Westminster, on the stone wall around the cemetery across the road from the Church of the Brethren, growing with *Ceratodon purpureus*, *Weissia controversa* and *Cladonia pyxidata*, 26 Aug 1984 (7) (10) EGW] [**Harford Co.:** ****Susquehanna State Park, in the crevices of a stone wall on mortar, growing with *Asplenium platyneuron*, *Cystopteris fragilis*, *Lepraria finkii*, *Akebia quinata*, *Weissia controversa*, *Funaria hygrometrica*, *Grimmia apocarpa* and *Cymbalaria muralis*, 28 Apr 1984 (8) EGW] [**Washington Co.:** ****Fort Frederick State Park, on mortar between blocks of stone, growing with *Pellea atropurpurea* and *Asplenium platyneuron*, 29 Oct 1967 (2935) EGW].

Tortula pagorum (Milde) De Notaris [**Baltimore Co.:** ****Rockland, on a railroad bridge foundation, 2 Jan 1961 (2113) EGF; **8 Oct 1961 (2936) EGF].

Tortula papillosa Wilson *ex* Spruce [**Worcester Co.:** ****Snow Hill, on the bark of a Norway Maple, 7 feet above the ground, 22 Jul 1960 (2114) HR].

Trichostomum tenuirostre (Hooker & Taylor) Lindberg [**Garrett Co.:** ****Casselman River and Route 40, on soil, intermixed with *Sematophyllum marilandicum*, 26 Sep 1964 (2941) HR].

Weissia controversa Hedwig [**Allegheny Co.:** ****Town Hill Mountain, elevation 1595 feet, on soil along a road cut, 29 Sep 1963 (2115) EGW] [**Baltimore City:** ****Between Cold Spring Ave. and Wynhurst Ave., on soil, 21 Apr 1959 (2967) EGF] [**Baltimore Co.:** ****Soldiers' Delight, on open barrens, 5 Sep 1955 (3342) WDR; **on soil in the open among the bases of *Andropogon scoparius*, 14 Mar 1965 (2943) EGW; **on soil along a road into Red Dog Lodge, growing with *Dermatocarpon hepaticum* and *Aristida dichotoma*, 8 Jan 1984 (2424) EGW; ****Lock Raven Reservoir, upper bridge, on rocks along the road in soil filled crevices, 18 May 1958 (3272) EGW; ****Reisterstown, All Saints Cemetery, on ground among grass around the gravestones, growing with *Ditrichum pallidum*, 24 May 1959 (2965) (2968) EGW; ****Queens Ferry Road, grounds of H. Rizner, on soil beside a cement sidewalk leading into the house, 10 Jun 1959 (2954) EGW; ****Seiler's Road, on an old barn wall foundation of stone, 11 Nov 1959 (2947) EGW; ****Worthington Ave., on soil at the bottom of an unused, small limestone quarry, 6 Dec 1959 (2966) EGW; ****Bond Ave., at the edge of a woods on top of a 2 foot high road embankment, on clayey soil, 20 Mar 1960 (2944) EGW; **about 150 yards from the intersection with Timber Grove Ave., on soil of a road bank along a woodland, 28 Nov 1971 (2948) EGW; ****Lone Hickory Farm, on open patches of soil among grasses, 12 Apr 1964 (2953) EGW; **on soil of a pasture, associated with *Poa pratensis*, 6 Feb 1965 (2942) EGW; **7 Apr 1968 (2956) EGW; **on soil among grasses in field between carriage house and swimming pool, 21 Apr 1966 (2757) EGW; **on bare soil among grasses at the edge of a farm road, 13 Mar 1966 (2961) EGW; **on soil of lawn under Redbud, 27 Apr 1968 (2958) EGW; ****Silver Spring Road, on bare patches of soil of a road bank, 15 Apr 1966 (2960); ****Dulaney Valley Road, around the Bosley Road Quarry, growing on marble rocks, 10 Mar 1968 (2577) EGW; ****Park Heights Ave., driveway of H. Pumpian, on bare places in a lawn, 8 Apr 1968 (2955) (2957) EGW; ****Foster estate, Bonita Ave. and Worthington Ave., on cement in crevices of a stone wall, 23 Dec 1972 (2959) (2963) EGW; ****Rosewood State Training School, growing over steam pipes on the lawn, 4 Mar 1973 (2916) EGW; **on bare spot amongst lawn grasses, 25 Mar 1973 (2915) EGW; ****Bonita Ave., Hunter-Wilson Distillery area,

where the buildings were torn down, on soil in the open between tufts of *Danthonia compressa* and *Andropogo virginicus*, 11 Apr 1984 (3154) EGW] [**Garrett Co.:** ****Swallow Falls, on bare soil along a road, associated with *Pogonatum pennsylvanicum*, 28 Sep 1963 (2116) EGW] [**Harford Co.:** ****Greene's Road, on a boulder on the road bank, 2 Nov 1959 (2970) EGW; ****Army Chemical Center, on open bare soil underneath White Oak, Black Gum and Pin Oak, 10 Dec 1959 (2950) (2951) (2964) EGW; **on soil in low swampy ground in an open woods near the Bush River, 8 Jan 1960 (2952) EGW; **on soil under White Oaks in open woods, 29 Mar 1960 (2971) EGW].

18. CALYMPERACEAE [Pottiales] *Syrhodon texanus* Sullivant [**Sommerset Co.:** ****5 miles south of Rehobeth, on the road to Shelltown, on the base of a *Nyssa* in a mixed swamp; 21 Aug 1964 (1786) WDR] [**Worcester Co.:** ****Md. #354, 5 miles northwest of Snow Hill, at the base of a cypress in a wet swamp, 20 Aug 1964 (1787) WDR; ****U.S. 113, 6 miles southwest of Snow Hill, at the base of a cypress in a swamp along a stream, 21 Aug 1964 (1785) WDR].

20. DICRANACEAE [Dicranales] *Dicranella heteromalla* (Hedwig) Schimper [**Baltimore City:** ****600 University Parkway, on bare soil under a Barberry bush, 19 Jan 1963 (2994) EGF] [**Baltimore Co.:** ****Soldiers' Delight, in open places; 5 Sep 1955 (3278) EGW; **on soil on the bank of a small stream on the serpentine barren, 15 Aug 1959 (3026) EGW; **on soil in a woods of oak-hickory-amelanchier, growing with *Leucobryum glaucum*, *Dicranum scoparium* and *Dicranum fulvum*, 28 Jan 1968 (2985) EGW; ****Greenspring Ave., 4 miles from Glyndon, 13 Aug 1957 (3263); ****Bonita Ave., soil along the road edge in a deciduous woods, 5 Jan 1958 (2468) (3279) FB; ****Lone Hickory Farm, on soil of an overhanging stream bank, growing with *Atrichum crispum*, 30 Aug 1959 (2996) EGW; **on soil on the roots of an uprooted Pin Oak, 6 Jun 1961 (1990) EGW; ****Gwynnbrook Ave., F. Price's woods, growing on soil, rootlets and fallen branchlets in a swampy woods of Red Maple, 31 Oct 1965 (2982) EGW] [**Carroll Co.:** ****Old Liberty Road, on soil under Spicebush on a roadcut, 22 Nov 1963 (2992) EGW] [**Cecil Co.:** ****4.5 miles north of the Susquehanna Bridge, on soil in a mesophytic woods, 7 Dec 1962 (2984) EGW] [**Garrett Co.:** ****Casselman Bridge State Park, on rocks along a small rill, growing with *Dicranella varia*, 26 Sep 1964 (2983) EGW; ****Carey Run Sanctuary, on the base of a Canada Hemlock and surrounding soil, 9 Oct 1964 (2995) EGW] [**Harford Co.:** ****Edgewood Arsenal, on soil in a woods of Black Gum, White Oak and Red Gum, along the Bush River, 20 Mar 1962 (2997) EGW; **on soil of a mound from a fall-down, 28 Mar 1962 (2981) EGW] [**Talbot Co.:** ****Md.

Route 662, about 1 mile southwest of Wye Mills, on soil in a seepage swamp along a small stream in a woods of Sycamore, Tulip-tree and Swamp White Oak, 19 Feb 1966 (2990) EGW] [**Washington Co.:** ****Along the Potomac River, 5 miles west of Hancock, on soil on the bank of a woodland road, 19 Jul 1959 (2993) EGW].

Dicranella rufescens (Withering) Schimper [**Baltimore Co.:** ****Bond Road, off Md. #439, soil on a farm, 19 Nov 1967 (2998) EGW].

Dicranella varia (Hedwig) Schimper [**Garrett Co.:** ****Casselman Bridge State Park, on rocks along a small rill, 26 Sep 1964 (3000) EGW] [**Harford Co.:** ****Edgewood Arsenal, Skipper's Point Road, on soil in a mesophytic woods of Willow Oak, Red Gum, Sour Gum and Virginia Pine, 5 Dec 1967 (2999) EGW].

Dicranodontium denudatum (Bridel) E. G. Britton *ex* Williams [**Carroll Co.:** ****Kay's Mill Road in Finksburg, on a damp rock face, 12 Sep 1955 (3275) FB].

Dicranum condensatum Hedwig [**Baltimore Co.:** ****Soldiers' Delight, on serpentine soil in an open sunny area, 3 Jun 1959 (3045) EGW; ****Along the Gunpowder River, north of Gunpowder Road, on a soil covered bank above a schist outcrop in a deciduous woods, 28 Mar 1962 (3046) EGW] [**Frederick Co.:** ****Gambril State Park, on soil along a ridge road on the mountain top just north of the State Park, 21 Oct 1960 (3044) EGW] [**Worcester Co.:** ****Shad Landing State Park, on soil among needles under *Pinus taeda*, 1 Jul 1965 (3047) EGW].

Dicranum flagellare Hedwig [**Baltimore Co.:** ****Timbergrove Ave. and Bond Ave., in a woods on the rotting surface of an old, barkless oak log, 2 Jun 1962 (2655) EGW; ****Bonita Ave., in a woods on soil at the base of a Red Maple, 24 Sep 1964 (1950) HR] [**Carroll Co.:** ****Kay's Mill Road, on the bark at the base of a White Oak, growing with *Frullania asagrayana*, *Dicranum flagellare*, *Aulacomnium heterostichum* and *Atrichum undulatum*, 15 Mar 1969 (2654) EGW] [**Cecil Co.:** ****US Route 40, 4.5 miles north of the Susquehanna Bridge, on bark at the base of a Chestnut Oak, 7 Dec 1962 (2766) EGW] [**Garrett Co.:** ****Swallow Falls State Park, at the base of *Amelanchier canadensis*, from the ground up to 4.5 inches, 28 Sep 1963 (1944) HR] [**Harford Co.:** ****Edgewood Arsenal, on the base of a rotting stump in a seepage swamp, 19 Sep 1966 (1945) EGW; **near the Bush River, on soil in a mesophytic woods, growing with *Leucobryum glaucum* and *Odontoschisma prostratum*, 7 Jul 1967 (1957) EGW; ****Rock Run Sanctuary, on the

bark of a tree about 5 feet above the ground, 11 Feb 1973 (1947) EGW] [**Somerset Co.:** ****Irish Grove Sanctuary, on soil at the base of *Pinus taeda*, 1 Dec 1968 (2612) EGW] [**Wicomico Co.:** ****Pocomoke Swamp near Whalesville, on a rotting log under Bald Cypress, 10 May 1964 (1949) (1952) HR] [**Worcester Co.:** ****Pocomoke Swamp, on a soil bank along a road ditch, 9 May 1959 (2652) (2658) EGW; ****Milburn Landing State Park, on sandy loam among pine needles under an open stand of *Pinus taeda*, 24 Jul 1965 (1948) EGW; ****Near US Route 113, about 2 miles southwest of Shad Landing, on the bark of a stump in a swampy woods with lots of Sphagnum and *Dicranum scoparium*, 20 Feb 1966 (1943) EGW; ****Along the road to Assateague Island in a woods on the north side of the road, on the base of a very rotten stump, 22 Apr 1967 (2576) EGW].

Dicranum fulvum Hooker [**Baltimore Co.:** ****Paper Mill Road, about 75 yards from the bridge over the upper end of Lock Raven Reservoir, on garnetiferous schist ledges in a mixed deciduous woods on a hillside, 8 Apr 1960 (1954) (3036) EGW; **along the Gunpowder River, on a large boulder, 14 Apr 1963 (1992) EGW; **in the woods on the ridge above the large iron bridge over Loch Raven Reservoir, on soil on rock outcrops, 12 Mar 1983 (3109) EGW; ****Gunpowder River, about 1 mile above Pretty Boy Reservoir, on Wissahickon schist ledges, 28 Apr 1962 (3031) (3108) EGW; ****Hollowfield, on moist rocks in a mesophytic woods, associated with *Fissidens minutulus*, 29 Sep 1962 (3035) EGW; ****Dover Road at the Brewster estate, on a boulder at the waterfall, 6 Jul 1964 (3034) EGW; ****Oregon Ridge-Ivy Hill Park, on ledges near a small pond in the woods, 1 Feb 1970 (2562) EGW] [**Carroll Co.:** ****Off Hughes Road, on the side of a rock, in a mesophytic woodland of Black Oak, Red Maple, and Witch Hazel, 17 May 1961 (1991) EGW] [**Frederick Co.:** ****Cunningham Falls State Park, on a boulder in a woods of Beech, Hop Hornbeam, Canada Hemlock and Black Birch, associated with *Ulota americana* and *Hedwigia ciliata*, 30 Jul 1961 (3032) (3033) EGW] [**Garrett Co.:** ****Casselman Bridge State Park, on a boulder in the picnic grove, 26 Sep 1964 (2656) (2670) (2673) (3030) EGW] [**Montgomery Co.:** ****Great Falls National Park, on rock outcrops in a woods about 100 yards from the Potomac River, 28 Feb 1983 (3107) EGW].

Dicranum fuscescens Turner [**Garrett Co.:** ****Swallow Falls State Park, Camp #97, on the base of a rotting hemlock stump in a Canada Hemlock, White Pine and White Oak woods, associated with *Tetraphis pellucida*, 27 Sep 1964 (3038) EGW].

Dicranum montanum Hedwig [**Garrett Co.:** ****Swallow Falls State Park, on the trunk of a large hemlock that had fallen across a stream in the woods, 28 Sep 1963 (3051) (3350)

EGW; ****Casselman Bridge State Park, on bark of a large *Quercus alba*, associated with *Frullania eboracensis* and *Platygyrium repens*, 26 Sep 1964 (3049) EGW; ****Carey Run Sanctuary, on a rotten hemlock log, 5 Oct 1963 (1951) EGW; **23 Sep 1989 (2857) EGW].

Dicranum scoparium Hedwig [**Allegany Co.:** ****Route 40, 1 mile east of Shipway's Motel, on soil on ledges in woods, 10 Oct 1965 (2571) EGW] [**Baltimore Co.:** ****Soldiers' Delight, near Dolfield Road, 3 Jun 1959 (1977) EGW; **on soil among *Andropogon scoparius*, *Panicum depauperatum* and *Sorghastrum nutans*, 21 Jun 1959 (1968) (1975) EGW; **on soil on the bank of a small stream on the serpentine barrens, 15 Aug 1959 (1955) (1965) (1966) (1972) EGW; **on soil in an open woods of Virginia Pine and oak, 8 Apr 1960 (1969) EGW; **on soil in an oak-hickory-Red Maple woods, 2 Oct 1967 (1974) EGW; **on soil on a wooded oak-hickory-*Amelanchier* hillside above Chimney Branch and the Fringed Gentian area, 28 Jan 1968 (3027) EGW; ****Bonita Ave., on soil in a deciduous woods, 5 Jan 1958 (3280) FB; ****Upper Melinda, Bonita Ave., on mica schist ledges along the road in a mixed deciduous woods, 11 Apr 1960 (1958) (1959) (1961) EGW; ****Paper Mill Road, on rock outcrops in the woods on the ridge above the large iron bridge over Loch Raven Reservoir, 12 Mar 1983 (3112) EGW] [**Carroll Co.:** ****Off Hughes Road, on soil in a mesophytic woods of Black Oak, Red Maple and Witch Hazel, 17 May 1961 (1993) EGW] [**Cecil Co.:** ****Near Route 40, 4.5 miles north of the Susquehanna Toll Bridge, on soil at an open spot at the edge of a woods, 7 Dec 1962 (1964) EGW] [**Harford Co.:** ****Greene's Road, on the land of the Jolly Acres Camp of the Lutheran Inner Missions, Inc., on the ledges of "Castle Rock" beside Deer Creek in a mesophytic woods, 9 Jul 1959 (1967) (1976) EGW] [**Montgomery Co.:** ****Great Falls National Park, on soil in a woods between the canal and the Potomac River, growing with *Bryoandersonia illecebra*, 10 Feb 1984 (2422) EGW] [**Somerset Co.:** ****Irish Grove Sanctuary near Marion, 1 Dec 1968 (2582) EGW] [**Worcester Co.:** ****Milburn Landing State Park, on soil under *Pinus taeda*, 24 Jul 1965 (1960) EGW; **on soil in a swamp along the edge of the Pocomoke River, 1 Jun 1968 (3028) EGW; ****US Route 113, about 2 miles southwest of Shad Landing, on soil in a very swampy woods of *Magnolia virginiana* and *Acer rubrum*, 19 Feb 1966 (3029) (1971) EGW].

Dicranum viride (Sullivant & Lesquereux) Lindberg [**Garrett Co.:** ****Casselman Bridge State Park, on a boulder in the picnic grove, associated with *Dicranum fulvum* and *Hedwigia ciliata*, 26 Sep 1964 (3113) HR].

21. **LEUCOBRYACEAE** [Dicranales] *Leucobryum albidum* (Bridel) Lindberg [**Baltimore Co.:** ****Soldiers' Delight, on soil in a deciduous woods off the serpentine barren, 16 Oct 1963 (2620) EGW] [**Garrett Co.:** ****Swallow Falls State Park, on soil under *Quercus alba*, *Tsuga canadensis* and *Viburnum acerifolium*, 28 Sep 1963 (2629) EGW].

Leucobryum glaucum (Hedwig) [**Anne Arundel Co.:** ****Angel's Bog, Mountain Road, growing at the base of a dead *Nyssa*, growing on both the base of the tree and on soil, under Pond Pine, Sep 1963 (2630) EGW] [**Baltimore Co.:** ****Greenspring Ave., 13 Aug 1957 (3262) EGW; ****Soldiers' Delight, on the ground under oak trees, 3 Jun 1959 (2634) EGW; **on soil in the woods on the hillside overlooking the brook where *Gentiana crinita* grows, in an oak-hickory-Red Maple woods, 1 Oct 1965 (2628) EGW; **on a steep bank in a woods above Chimney Branch in the Fringed Gentian area, 28 Jan 1968 (2626) EGW; ****Dolfield Road, on ledges of mica schist near the road, 27 Jun 1959 (2635) EGW; ****Reisterstown, Bond Ave., on a rotting log, associated with *Hypnum imponens*, 24 Feb 1962 (2631) EGW; ****Lone Hickory Farm, on soil in a swamp under Red Maple, near the edge of the woods, 27 Oct 1963 (2622) HR; ****Lake Roland, Robert E. Lee Park, on soil on ledges under American Beech, Black Oak and Black Locust, 3 Nov 1963 (2636) EGW] [**Carroll Co.:** ****Kay's Mill Road, on soil in the woods under maple and oak, growing with Partridge Berry and *Agrostis perenens*, 5 Nov 1960 (2633) EGW] [**Cecil Co.:** ****US Route 40, east side, 4.5 miles north of the Susquehanna Toll Bridge, on soil at the base of a Chestnut Oak, associated with *Dicranum scoparium*, 7 Dec 1962 (2623) EGW] [**Garrett Co.:** ****Casselman Bridge State Park picnic area, on soil at the base of a *Quercus alba*, 26 Sep 1964 (2627) EGW] [**Harford Co.:** ****Edgewood Arsenal, on soil and on a very rotten log, under Red Gum, Red Maple and Sour Gum, 17 Sep 1959 (2572) EGW; **at the woods road at the north end of the airfield, on moist soil of a seepage plain, in a woods of Willow Oak, Spanish Oak, Pin Oak, White Oak, Black Oak and Black Gum, 1 Mar 1965 (2624) EGW] [**Howard Co.:** ****Woodbine Road, on ledges along the south branch of the Patapsco River, 16 Jun 1962 (2632) EGW] [**Montgomery Co.:** ****Great Falls National Park, on soil in the woodland between the C & O Canal and the Potomac River, 10 Feb 1984 (2421) EGW] [**Somerset Co.:** ****Irish Grove Sanctuary near Marion, on soil in a pine woods, 1 Dec 1968 (2586) EGW] [**Washington Co.:** ****Mt. Aetna Youth Camp, near Smithsburg, on soil in a mesophytic woods of oak, hickory, Spicebush and Tulip-tree, 27 Jul 1969 (2574) EGW] [**Worcester Co.:** ****West Ocean City, woods back of Wyatt's cabins, on decorticated rotting log, 10 May 1964 (2639) EGW; **growing with *Polytrichum ohioense*, 15 May 1966 (2625)

EGW; ****Woods along the road to Assateague Island, on soil in a woods of Red Maple, Red Gum, *Clethra alnifolia*, *Rhododendron nudiflorum*, *Vaccinium corymbosum*, *Pinus taeda* and American Holly, 22 Apr 1967 (2638) EGW].

22. **RHABDOWEISIAEAE** [Dicranales] *Rhabdoweisia crispata* (Withering) Lindberg [**Garrett Co.:** ****Swallow Falls State Park, on ledges along a wooded rill in woods above the Falls, 28 Sep 1963 (1898) EGW].

23. **DITRICHACEAE** [Dicranales] *Ceratodon purpureus* (Hedwig) Bridel [**Baltimore City:** ****Mt. Vernon Place, growing in a crack in the sidewalk at the edge of a building curb, 6 Aug 1965 (2223) EGW] [**Baltimore Co.:** ****Loch Raven Reservoir near Bosley Road, on soil in crevices of rocks, 18 May 1958 (3264) EGW; ****Soldiers' Delight, on barren serpentine rock in the sun, Feb 1960 (2216) EGW; **on rocks of the stone fireplace outside of the Red Dog Lodge, about 5 feet above the ground, 22 Jun 1963 (2211) EGW; **on bare soil along a dirt road leading to Red Dog Lodge, growing with *Ditrichum pallidum*, *Funaria hygrometrica* and *Dicranella heteromalla*, 6 May 1973 (2856) EGW; ****Gwynnbrook Ave. near the railroad, on burned wood of an old barn foundation, associated with *Bryum argenteum* and *Funaria hygrometrica*, 6 Jun 1961 (2208) EGW; ****Lone Hickory Farm, growing on concrete blocks of the laundry steps, 28 Jun 1961 (1987) EGW; ****Wards Chapel Road, about ¼ mile from the quarry and the shooting range, growing on Wissahickon mica schist ledges along the road, Sep 1963 (2203) EGW; ****Valley Inn at Falls Road, on a stone wall, 8 Feb 1964 (2217) EGW; ****Silver Spring Road, near Magnolia Ave., on bare patches of soil on a road bank, 15 Apr 1966 (2526) EGW] [**Carroll Co.:** ****Glenn Falls, on ledges along the railroad on a thin layer of soil, 12 Nov 1961 (2202) EGW; ****Hughes Road and Kay's Mill Road, on ledges with small pockets of soil, 1 May 1965 (2215) EGW] [**Cecil Co.:** ****US Route 40, 4.5 miles north of the Susquehanna Toll Bridge, growing on a pile of gravel dumped in an opening at the edge of the woods, 7 Dec 1962 (2201) EGW] [**Prince George's Co.:** ****Beltsville Agricultural Research Center, on soil among shrubs on the bank of an exit road, growing with *Chamberlainia oxyclada* and *Bryum capillare*, 8 Feb 1965 (2209) (2213) HR] [**Somerset Co.:** ****Irish Grove Sanctuary, on sandy loam soil, 20 Apr 1968 (2580) EGW] [**Saint Mary's Co.:** ****Saint Mary's City at Maryland's first statehouse built in 1636, on crevices of a brick wall, 28 Apr 1969 (2901) EGW] [**Worcester Co.:** ****Woods along the road to Assateague Island, on soil at the edge of a woods along the main road, growing with *Pleuridium subulatum* and *Ditrichum pallidum*, 22 Apr 1967 (2900)].

Ditrichum lineare (Schwaegrichen) Lindberg [Cecil Co.: ****Elk Neck State Park, on sandy loam of an open road cut, 9 Jul 1965 (3004) EGW].

Ditrichum pallidum (Hedwig) Hampe [Baltimore Co.: ****Soldiers' Delight, on soil in a bare spot among grasses, 3 Jun 1959 (3006) EGW; ****Gwynnbrook Ave. at F. Price's woods, on soil in a Tulip-tree and Red Maple woods, 15 Nov 1959 (3013) EGW; ****Harford Road, about 3 miles south of the Gunpowder River, on clay loam in a road cut under Tulip-trees, 4 Nov 1964 (3012) EGW] [Frederick Co.: ****Middletown, on soil in a mesophytic woods, 25 May 1958 (2467) EGW] [Harford Co.: ****Edgewood Arsenal, on soil in an open place in a mesophytic woods of oak, Red Gum and Willow Oak, 24 Mar 1960 (3007) EGW; **on soil along a small stream in a woods, 23 Apr 1968 (3008) EGW; ****Mountain Road, MD #152, growing with *Ceratodon purpureum*, 18 May 1960 (3005) EGW] [Worcester Co.: ****Milburn Landing State Park, on sandy loam under an open stand of *Pinus taeda*, 24 Jul 1965 (3010) EGW; ****Woods along the road to Assateague Island, on soil at the edge of the woods along the main road, growing with *Ceratodon purpureus* and *Pleuridium subulatum*, 22 Apr 1967 (2899) EGW].

Ditrichum pusillum (Hedwig) Hampe [Baltimore Co.: ****Duncan Hill Road northeast of Butler, on a freshly disturbed sandy road cut, 28 Nov 1961 (3017) EGF; ****Pretty Boy Reservoir at Possum Cove, on soil of a bank, 1 Dec 1961 (3015) EGF; ****Dover Road, 1 mile from Greenspring Ave., on barish earth of a road cut, associated with *Dicranella heteromalla*, and *Scapania nemorosa*, 6 Feb 1963 (3018) HR; ****Lone Hickory Farm, among grasses and sedges along a drainage ditch near a horse pond on Bonita Ave., growing with *Physcomitrium pyriforme*, 9 Jan 1965 (3014) EGW; ****Bond Road off Md. #439, on soil, 19 Nov 1967 (3016) EGW; ****Relay, near the railroad tracks below the I-95 overpass, in dense mats over a considerable area of poor soil, 19 Oct 1974 (2974) R.S. Farley].

Pleuridium subulatum (Hedwig) Rabenhorst [Baltimore Co.: ****Lone Hickory Farm, on open patches of soil among grass in a field on a hillside, growing with *Weissia controversa* and *Astomum muhlenbergianum*, 12 Apr 1964 (631) EGW; ****Lone Hickory Farm, on an open patch of soil among grass roots in an open field near an American Holly Tree, 30 May 1965 (625) EGW; **in an open field on bare patches of soil, 21 Apr 1966 (3022) EGW; **growing among grasses on a bare spot in an open field, growing with *Physcomitrium pyriforme*, *Weissia controversa* and *Draba verna*, **8 Apr 1967 (630) (633) (634) EGW; **in a pasture above an American Holly Tree, 7 Apr 1968 (629) EGW;

****Western Md. Railroad northwest of Kendig's Mill Road, on a bare patch of silty soil in an open area along the railroad, 12 Apr 1964 (632) EGW; ****Pretty Boy Reservoir at George's Creek Road, on woods' soil in a road in a *Pinus virginiana* forest, 19 Apr 1964 (626) EGF; ****Loch Raven Reservoir at Dulaney Valley Road, around the Bosley Road Quarry, on soil in an open field, 10 Mar 1968 (628) EGW; ****Park Heights Ave., driveway of H. Pumpian, on bare places in a lawn, associated with *Astomum muehlenbergianum*, *Ceratodon purpureus*, *Pleuridium subulatum* and *Rhynchostegium serrulatum*, 8 Apr 1968 (627) EGW] [**Somerset Co.:** ****Irish Grove Sanctuary near Marion, on soil on the top of an embankment around a pond, growing with *Ditrichum pallidum*, 12 Apr 1970 (2570) EGW] [**Worcester Co.:** ****Woods along the road to Assateague Island, on soil at the edge of a woods along the main road, growing with *Ceratodon purpureus* and *Ditrichum pallidum*, 22 Apr 1967 (2898) EGW].

24. **ARCHIDIACEAE** [Dicranales] *Archidium donnellii* Austin [**Baltimore City:** ****(No date or substrate), apparently from the herbarium of C. F. Austin (2276)].

25. **BRUCHIACEAE** [Dicranales] *Trematodon ambiguus* (Hedwig) Hornschuch [**Baltimore Co.:** ****Lone Hickory Farm, on soil between birches, 6 Jun 1961 (2016) EGW; ****Kendig's Mill on Bonita Ave., growing in the crevices of a stone wall that formed part of the Mill, growing with *Pellaea atropurpurea*, *Polystichum acrostichoides*, *Asplenium platyneuron* and *Dryopteris spinulosa*, 25 Mar 1973 (2074) EGW].

Trematodon longicollis Michaux [**Baltimore Co.:** ****Greenhouse of Mrs. C. Francis on Satyr Hill Road, on soil in the greenhouse, associated with *Anthoceros* sp., 13 Feb 1963 (2938) EGW].

27. **FISSIDENTACEAE** [Dicranales] *Fissidens bryoides* Hedwig [**Allegany Co.:** ****C & O Canal, vertical face of the stone blocks of the canal lock, 5 feet above the ground, 18 Jul 1959 (1817) EGW] [**Baltimore Co.:** ****Upper Melinda, 16 Aug 1959 (2024) EGW; **on stones in a small brook with plants growing above the water level, 6 Sep 1959 (2025) EGW; **on small rocks in a small stream in an oak-hickory-beech woods, 29 Jun 1963 (2027) EGW; ****Hollowfield, on a moist rock in a mesophytic woods (plants ≤ 5 mm!), associated with *Dicranum fulvum*, 29 Sep 1962 (2026) EGW; ****Lone Hickory Farm, on soil among grasses of a tennis court, 8 Oct 1968 (2028) EGW] [**Garrett Co.:** ****Carey Run Sanctuary, on a rock in a small stream under hemlocks, 5 Oct 1963 (2029) EGW; ****Crabtree Cave about 100 yards above the Savage River Dam, on reddish, soft shale

boulders, approximately at 2600 feet, 28 Oct 1972 (2030) EGW] [**Harford Co.:** ****Rock Run Sanctuary at the Susquehanna State Park, on the bank on the upper side of the main road by the sanctuary, on a rock in a woods under Black Walnut, Sassafras and Black Locust, 25 May 1973 (1831) EGW].

Fissidens bushii (Cardot & Thériot) Cardot & Thériot [**Baltimore Co.:** ****Mahoney Farm on Bonita Ave., on bare soil of an open field among weeds, associated with *Funaria* sp. and *Physomitrium* sp., 5 Apr 1964 (1800) EGW; ****Manor Road in Glen Arm, on soil in a frondose deciduous woods, 2 Aug 1968 (1822) EGW] [**Montgomery Co.:** ****Washington Grove, Route 355 at the Thompson estate, on soil along a small rill under a Red Maple tree, 3 Sep 1959 (1805) (1823) HR].

Fissidens cristatus Wilson ex Mitten [**Baltimore Co.:** ****Upper Melinda, on a small rock ledge of mica schist with *Hedwigia ciliata* and *Mnium cuspidatum*, 19 Mar 1961 (1832) EGW; **on Wissahickon mica schist ledges on the west side of Bonita Ave., associated with *Mnium cuspidatum* and *Cirriphyllum boscii*, 6 Feb 1963 (1830) EGW; ****Timber Grove Ave. and Bond Ave., in a woods on soil under a Tulip-tree, 2 Jun 1962 (1818) EGW; ****Lone Hickory Farm, on a switch road near the woods, on dryish soil on the bank of the road, under White Oak and Black Cherry, 21 Feb 1965 (1829) EGW; ****Ridgeway Ave., on soil in a mesophytic woods of beech, Tulip-tree, oak (Black, White, Scarlet), Red Maple, Mountain Laurel, *Desmodium nudiflorum*, *Rhododendron nudiflorum* and *Dennstaedtia punctilobula*, 8 Aug 1970 (1825) EGW] [**Frederick Co.:** ****Cunningham Falls State Park, on the roots and bark of an American Beech, 30 Jul 1961 (1801) EGW] [**Garrett Co.:** ****Swallow Falls State Park, on bare soil along the road, 28 Sep 1963 (1826) EGW] [**Harford Co.:** ****Edgewood Arsenal at the edge of a swamp behind building 3330, on the roots of *Quercus prinus*, growing with Sphagnum, *Helodium* sp. and *Hypnum* sp., 17 Oct 1967 (1824) EGW]

Fissidens exilis Hedwig [**Baltimore Co.:** ****Loch Raven Reservoir, near the junction of Jarrettsville Road and Dulaney Valley Road, on damp shaded soil, along a woods road on bare spots of soil among honeysuckle, 25 Mar 1964 (1803) EGF; ****Loch Raven Reservoir off Dulaney Valley Road, near the Bosley Road Quarry, on bare soil along a path, 10 Mar 1968 (1802) (1804) EGW; ****Loch Raven Reservoir, near Dulaney Valley Road in the Loch Raven Picnic Area, on soil under young *Pinus strobus*, very abundant and fruiting freely, 9 Apr 1975 (2018) (2019) (2020) EGW].

Fissidens osmundioides Hedwig [**Baltimore Co.:** ****Kendig's Mill Road, on soil on a road bank in woods of oak and hickory, growing with *Eurhynchium pulchellum*, *Physomitrium pyriforme* and *Aulacomnium heterostichum*, 25 Jul 1959 (2039) HR; ****Dolfield Road, on soil on the bank of a small stream, growing with *Atrichum undulatum* and *Thuidium delicatulum*, 8 Jul 1961 (2031) EGW; ****Chatsworth Ave., on the parsonage lawn of All Saints Church, associated with Sheep Fescue and Kentucky Blue Grass, 2 Jun 1962 (2034) EGW; ****Soldiers' Delight, on soil in the woods near Chimney Branch Creek, 7 Jan 1973 (2032) EGW].

Fissidens subbasilaris Hedwig [**Baltimore Co.:** ****Bonita Ave., on an inclined face of a boulder at the edge of a brook about 2 feet above the ground, in a deciduous woods of oak, Tulip-tree and Red Maple, 5 Jan 1958 (3295) FB; ****Soldiers' Delight, on soil, 7 Jan 1973 (2033) EGW].

Fissidens taxifolius Hedwig [**Baltimore Co.:** ****Paper Mill Road about 0.8 mile from the Loch Raven Bridge, on soil under Black Walnut, Red Maple and Spicebush, growing with *Eurhynchium hians*, *Rhynchostegium serrulatum* and *Mnium cuspidatum*, 29 Feb 1960 (2057) EGW; ****Pikesville at Woodholm Road, on soil under trees near a bridle path, fruiting abundantly, 20 Mar 1960 (2048) (2049) (2059) EGW; ****Goucher College, on moist soil, 28 Nov 1960 (2427) EGW; ****Cockeys Mill Road on the Old Norris house grounds, on rich loamy soil under *Halesia tetraptera* and *Ailanthus*, 4 Dec 1960 (2054) (2060) EGW; ****Upper Melinda, on soil along a road cut, 29 Jun 1963 (2042) EGW; ****Glyndon at Worthington Ave., on soil in a woods, 7 Oct 1963 (2040) EGW; **on soil around a spring, 8 Oct 1963 (2043) EGW; **on soil along a woodland path, growing with *Dicranella heteromalla*, 17 Oct 1963 (2044) EGW; ****Bonita Ave at Foster's woods, on soil in a mesophytic woods of oak-hickory-Tulip-tree, associated with Yellow Ladyslippers, 23 May 1964 (2053) EGW; ****Owings Mills, on soil of a hillside in a woods of Black Walnut, Tulip-tree and White Ash, 10 Apr 1965 (2045) (2063) EGW; ****Chrome Road on the estate of Vincet, on soil along a path in a mesophytic woods of Black Oak, Chestnut Oak, Tulip-tree and Black Birch, associated with *Atrichum undulatum*, 2 Oct 1965 (2828) EGW; ****Painter's Mill Road at McDonogh School, on soil along an edge of a woods near the road, among 2 feet tall weeds, 8 Nov 1965 (2051) EGW; ****Towson State College campus, on soil in large patches on a bank near the professional center parking lot, 11 Apr 1973 (2058) R. S. Farley] [**Frederick Co.:** ****Cunningham Falls State Park, on soil in a mesophytic woods of Beech, Hemlock, Black Birch and Hop Hornbeam, associated with *Mnium cuspidatum*, 30 Jul 1961 (2041)

(2050) EGW; **growing on a stump, 30 Jul 1961 (1995) EGW] [**Harford Co.:** ****Philadelphia Road near the Little Gunpowder Falls, on soil on a bank of a very small rill in a woods of Sycamore, White Ash and Japanese Honeysuckle, 15 Jun 1965 (2046) EGW].

30. PTYCHOMITRIACEAE [Grimmiales] *Ptychomitrium incurvum* (Schwaegrichen) Spruce [**Baltimore Co.:** ****Pretty Boy Reservoir at Possum Cove on dry rocks at the bridge ravine and the site of the city line, 25 Apr 1958 (3266) EGW; ****Bank of the Little Gunpowder River at the Old Philadelphia Road, on a large boulder in the woods on the bank of the river, associated with *Hedwigia ciliata*, 1 Jul 1965 (1868) EGW; ****Maryland Line, at a farm in northern Baltimore Co., on rocks forming a rip-rap of a dam of a former farm pond, associated with *Grimmia apocarpa* and *Hedwigia ciliata*, 28 Apr 1968 (1887) EGW] [**Harford Co.** ****Atkisson Reservoir, on Wissahickon Schist in a woods about 130 feet from the Reservoir, in a woods of Tulip-trees, *Quercus falcata*, *Q. rubra*, *Cornus florida*, *Sassafras albidum* and *Carpinus caroliniana*, growing with *Dicranum fulvum*, 2 Mar 1984 (3136) EGW].

31. GRIMMIACEAE [Grimmiales] *Grimmia apocarpa* Hedwig [**Baltimore Co.:** ****Gwynnbrook Ave., on the vertical rock masonry of a bridge over a small stream, growing on the cemented crevices between the stones of the bridge, associated with *Bryum argenteum* and *Leskea gracilescens*, 16 Jul 1961 (2358) EGW; ****Caves Road, 35 yards from Park Heights Ave., on a cement wall of a small bridge over a rill, 10 Dec 1961 (2393) HR; ****Soldiers' Delight, on the rocks of a fireplace at Red Dog Lodge, growing with *Weissia controversa*, 22 Jun 1963 (2406) EGW; ****Bonita Ave., along the edge of the Baltimore Colts practice field, on the top of an old stone foundation in a woods, on a horizontal cement surface about 5 feet above the ground, 24 Feb 1984 (3118) EGW; ****St. Thomas Lane and Garrison Forest Road, on cement interstices of a rock wall around St. Thomas Church, growing with *Orthotrichum strangulatum*, *Anomodon attenuatus* and *Tortula muralis*, 9 Jan 1985 (482) EGW] [**Montgomery Co.:** ****Great Falls National Park, on a rock outcrop about one mile below the park headquarters on the edge of the Potomac River in full sun, 10 Feb 1984 (3119) EGW].

Grimmia laevigata (Bridel) Bridel [**Montgomery Co.:** ****Great Falls National Park, on a slight layer of soil on the ledges of the rocky sides of the Potomac River, in an open sunny site, 10 Feb 1984 (2423) (2895) (3120) EGW].

Grimmia pilifera Palisot de Beauvois [**Baltimore Co.:** ****Dover Road at Daniel Brewster's estate, on a boulder at the waterfall, 6 Jul 1964 (2408) EGW; ****Paper Mill Road, near the Lock Raven Reservoir Bridge, on ledges of Wissahickon schist, growing with *Atrichum*, and *Reboulia hemisphaerica*, 21 Mar 1966 (2405) HR] [**Carroll Co.:** ****Kay's Mill Road in Finksburg, on granitic outcrops in a mesophytic woods of oak, hickory, and Tulip-tree, 10 Jul 1959 (2407) EGW].

Racomitrium aciculare (Hedwig) Bridel [**Garrett Co.:** ****Swallow Falls State Park, on the vertical face of a boulder in a stream above the falls, 28 Sep 1963 (1899) EGW; ****On rocks in a stream (Andrews Foray 22-24 Sep 1989, identified by Anna Felton) (3363)].

Racomitrium heterostichum (Hedwig) Bridel [**Garrett Co.:** ****Swallow Falls State Park, on Rocky ledges above the falls, 28 Sep 1963 (1904) EGW].

35. **ORTHOTRICHACEAE** [Orthotrichales] *Orthotrichum anomalum* Hedwig [**Baltimore Co.:** ****St. Thomas Lane in Owing Mills, on the stone wall surrounding St. Thomas Church, 30 Apr 1967 (3125) EGW].

Orthotrichum obtusifolium Bridel [**Baltimore Co.:** ****Lone Hickory Farm, on the bark of a Norway Maple, associated with *Platygyrium repens*, 2 May 1961 (2005) EGW; **on the bark of a Norway Maple by the tennis court, 5 Nov 1967 (2458) EGW].

Orthotrichum ohioense Sullivant & Lesquereux ex Austin [**Baltimore Co.:** ****Bunker Hill Road at Camp Wood on the Gunpowder River, on the bark of an elm (2454) EGF; ****Glyndon, at 220 Central Ave., on the bark of a Norway Maple about 5 feet above the ground, 7 Sep 1959 (605) EGW; ****Gunpowder River between Bunker Hill Road and Masemore Road, on the trunk of a Butternut tree along the river flat, 5 Apr 1961 (606) EGF] [**Carroll Co.:** ****Greenmount, on the bark of *Acer platanoides* about 4-8 feet above the ground, associated with *Platygyrium repens* at the lower portion of the trunk, 18 Sep 1965 (2442) EGW; ****Oakland Road, Shervettes Corner, "Mt. Nebo", on the bark of an elm tree on the lawn of a housesite, 29 Dec 1965 (993) EGF].

Orthotrichum pumillum Swartz [**Baltimore City.:** ****Alley between Cold Spring Lane and Overhill Road, on the shaded damp top of a stucco wall of a garage, 16 Jan 1966 (607) EGF; ****Glyndon, on the bark of *Acer saccharinum* on the lawn in front of the Post

Office, growing with *Xanthoria fallax*, *Platygyrium repens* and *Physcia millegrana*, 13 Jun 1984 (9) EGW; ****Lone Hickory Farm, on the bark of a Norway Maple, 5 feet above the ground, 20 Jun 1964 (2450) EGW] [**Washington Co.:** ****Gathland State Park, on the bark of a Box Elder, 2 feet DBH and 5 feet above the ground, growing with *Platygyrium repens*, 7 Aug 1959 (2972) EGW] [**Worcester Co.:** ****Snow Hill, on the bark of a Norway Maple, 2 feet DBH and 7 feet above the ground, associated with *Tortula papillosa* and *Tortula pagorum*, 22 Jul 1960 (2001) EGW]

Orthotrichum pusillum Mitten [**Carroll Co.:** ****Hampstead, N. Main Street, on the bark of a Norway Maple on Main St., 6 feet above the ground, growing with *Leskea gracilescens* and *Platygyrium repens*, 19 Jan 1960 (608) HR].

Orthotrichum sordidum Sullivant & Lesquereux ex Austin [**Montgomery Co.:** ****Swain's Landing along the C & O Canal, on the bark of a Box Elder, *Acer negundo*, 25 Apr 1965 (2465) EGF].

Orthotrichum stellatum Bridel [**Baltimore Co.:** ****Piney Grove Road and Longnecker Road, D. Rhode's estate near McGill Run, on the bark of *Cornus florida*, 3.5 inches DBH and 5 feet above the ground, 24 Oct 1965 (2671) HR] [**Carroll Co.:** ****Hughes Road near Beaver Run, on the bark of a White Ash 4 feet above ground, 8 inches DBH, in association with *Frullania eboracensis* and *Platygyrium repens*, 11 Jul 1959 (2459) EGW] [**Harford Co.:** ****Edgewood, in a Sycamore, Black Willow, White Ash flood plain woods along a creek where the new bridge from Edgewood Road will cross Route 40, on the bark of a Black Willow, 10 inches DBH, 25 Oct 1967 (611) (613) EGW] [**Worcester Co.:** ****Near Ocean City, about 4 miles from Route 50 on a road to Whaleysville in a swamp, on the bark of *Acer rubrum*, 14 inches DBH and about 4-6 feet from the ground, 13 May 1961 (2456) EGW; ****Whaleysville, Pocomoke Swamp, on the bark of a Red Maple, 18 inches DBH, 10 May 1964 (2669) EGW; **at the Pocomoke Swamp, on the bark of *Acer rubrum*, 1 foot DBH, 9 May 1963 (2667) EGW].

Orthotrichum strangulatum Palisot de Beauvois [**Baltimore City.:** ****Overhill Road, on the vertical surface of concrete steps, 14 Apr 1964 (2453) EGF] [**Baltimore Co.:** ****Ridge Road, near Walter Uebel's Farm, on the concrete of a bridge abutment, associated with *Tortella tortuosa*, 26 May 1961 (2447) EGW; ****Bonita Ave. and Worthington Ave. on the Foster estate, on cement crevices of a stone wall beside a house, growing with *Tortella muralis* and *Anomodon attenuatus*, 23 Dec 1972 (609) (610) EGW;

****Garrison Forest Road and St. Thomas Lane, on a stone wall, especially the interstices of the cement mortar, at the St. Thomas Church, growing with *Asplenium platyneuron*, *Caloplaca flavescens*, *Caloplaca citrina*, *Placynthium nigrum*, *Grimmia apocarpa*, *Lecanora dispersa*, *Parmelia subrudecta* and *Anomodon attenuatus*, 9 Jan 1985 (2906) EGW] [**Carroll Co.:** ****McKinsey's Mill, on a stone bridge abutment, growing with *Grimmia apocarpa*, 15 Apr 1961 (2446) EGF] [**Frederick Co.:** ****Sam's Creek, north of McKinsey's Mill, on a limestone cliff along Sam's Creek, 15 Apr 1961 (2668) EGF] [**Harford Co.:** ****Between Jerusalem and Franklinville on a cement wall top of a covered bridge foundation, associated with *Leskea*, 12 Dec 1962 (2455) EGF] [**Washington Co.:** ****C & O Canal, on a cement wall, 9 Apr 1961 (2452) EGF].

Ulotia coarctata (Palisot de Beauvois) Hammerschmid [Garrett Co.: ****Swallow Falls State Park, on the bark of a maple tree, 14 Jun 1958 (2546) EGW].

Ulotia crispa (Hedwig) Bridel [**Baltimore City:** ****29 Mar 1889 (2946) W. V. Metcalf] [**Baltimore Co.:** ****Gunpowder Road, along the bank of Silver Run about 1 mile north of Pretty Boy Dam, on the bark of a hickory, 3 inches DBH and 4-7 feet above the ground, 28 Apr 1962 (2945) EGW] [**Garrett Co.:** ****Swallow Falls, on the bark of a maple tree, 14 Jun 1958 (2545) EGW; **associated with *Pyxine sorescens*, *Frullania eboracensis*, *Platygyrium repens* and *Parmelia sulcata*, 1963 (1809) EGW].

Ulotia hutchinsiae (Sm.) Hammerschmid [**Frederick Co.:** ****Cunningham Falls State Park, on boulders in a mesophytic woods of Black Birch, Beech, Canada Hemlock and Black Oak, growing as a mixture with *Hedwigia ciliata* and *Dicranum fulvum*, 30 Jul 1961 (2015) (2445) EGW; ****Catoctin National Park, on a boulder in the woods in Charles Hickey's quadrat study, growing with *Hedwigia ciliata*, 28 Sep 1974 (2657) EGW].

37. HEDWIGIACEAE [Hedwigiales] *Hedwigia ciliata* (Hedwig) Palisot de Beauvois [**Allegany Co.:** ****Green Ridge State Forest, Fifteen Mile Creek Campground, on a large boulder in the woods, 3-4 May 1975 (2354) (2355) (2356) EGW] [**Baltimore Co.:** ****Woodstock College, on a ledge in a mesophytic woods, 6 Aug 1959 (142) EGW; ****Soldiers' Delight, on soil in an oak-hickory-Red Maple woods on the hillside overlooking the brook where *Gentiana crinita* grows, 1 Oct 1965 (2885) EGW] [**Carroll Co.:** ****Route 97, ½ mile east of Bridgeport, on a thin layer of Gettysburg Red Shale, associated with *Rhus aromatica*, *Hedwigia ciliata* and *Cheilanthes lanosa*, 17 Apr 1966 (130) (132) (133) (135) (137) EGW; ****Kay's Mill Road in Finksburg, on a Wissahickon

schist ledge along the road, 15 Mar 1969 (138) EGW] [**Frederick Co.:** ****Libertytown, J. Grabenstein farm, on small rocks in a woods of Black Cherry and White Oak along the driveway, 27 Dec 1959 (141) EGW; ****Catoctin Mountain Park, on boulders near a stream, in a woods of Black Cherry, Canada Hemlock, Scarlet Oak and Chestnut Oak, 30 Apr 1966 (2539) EGW] [**Garrett Co.:** ****Pleasant Valley, on rocks, 14 Jun 1958 (2542) EGW; ****Casselman Bridge State Park, on a boulder in the picnic grove, 26 Sep 1964 (139) EGW; ****Muddy Falls, on rocks below the falls, 27 Sep 1964 (140) EGW] [**Harford Co.:** ****Route #1, 2 miles north of Kingsville, on the northwest side of the road, on dry boulders at the edge of a mesophytic woods and meadow, 14 Mar 1962 (136) EGW] [**Montgomery Co.:** ****Great Falls National Park, on a rock outcrop in a woods about 100 yards from the Potomac River, just below the canal flood gate #11, 28 Feb 1983 (3122) (3123) EGW].

38. BRYACEAE [Bryales] *Bryum argenteum* Hedwig [**Anne Arundel Co.:** ****Annapolis, between the parking lot next to the Army-Navy Stadium and the street, on a grassy strip, growing on a bare place among *Poa pratensis* and *Ceratodon purpureus*, 16 Feb 1984 (3096) EGW] [**Baltimore City:** ****10 West Chase Street, fruiting, 30 Jun 1969 (3373) EGW] [**Baltimore Co.:** ****Owings Mills, Franks Nursery and Garden Center, growing in pots with *Hosta* sp., 27 Sep 1949 (2859) EGW; ****Soldiers' Delight, in an opening among *Andropogon scoparius*, *Aristida dichotoma*, *Liatris graminifolia*, *Polygonum tenue*, *Riccia* sp., *Dermatocarpon hepaticum* and *Fimbristylis autumnalis*, 15 Oct 1984 (3) EGW] [**Harford Co.:** ****Edgewood Arsenal, behind Building 3330, on asphalt, 5 Dec 1967 (2558) EGW] [**Saint Mary's Co.:** ****St. Mary's City, at Maryland's first statehouse built in 1636, on a brick wall and in crevices of the wall, 28 Apr 1969 (2902) EGW].

Bryum caespiticium Hedwig [**Baltimore Co.:** ****Soldiers' Delight, on dryish bare soil along the road leading into the Red Dog Lodge picnic area, growing with *Cladonia subtenuis*, *Andropogon scoparius*, *Aristida dichotoma*, *Solidago nemoralis*, *Pinus virginiana*, *Quercus stellata*, *Quercus marilandica*, *Ceratodon purpureus* and *Cladonia chlorophaea* (2893) EGW; ****Glyndon, Railroad Ave., on mortar between the bricks on the east side of the building housing the Glyndon Post Office, about 3 feet above the ground, growing with *Mnium cuspidatum*, 12 Sep 1971 (3097) EGW].

Bryum lisae var. *cuspidatum* (Bruch, Schimper, & Gümbe) Margadant [**Baltimore Co.:** ****Garrison Forest Road, on a stone wall surrounding the St. Thomas Episcopal Church, growing with Ebony Spleenwort and *Orthotrichum* sp., 16 Jan 1977 (3025) EGW].

Leptobryum pyriforme (Hedwig) Wilson [**Baltimore Co.:** ****Lone Hickory Farm, on soil in the garden with Kentucky Blue Grass, 24 May 1961 (1997) EGW; ****Pikesville at Reisterstown Plaza, on soil with a potted plant, 1 Apr 1966 (483) EGW; ****Bluemount Nurseries, growing in flower pots out of doors, common in the flower pots, 28 Jun 1975 (2613) EGW] [**Carroll Co.:** ****Westminster at "Carroll Gardens", in pots in the greenhouse, 28 Apr 1966 (3023) EGW; ****Westminster at "Carroll Gardens", on soil in pots in the greenhouse, associated with *Funaria hygrometrica*, *Bryum argenteum* and *Poa annua*, 1 Nov 1969 (484) EGW] [**Harford Co.:** ****Susquehanna State Park, in crevices of a stone wall at the intersection of Stafford Road and Lapidum Road, growing with *Cymbalaria muralis*, *Weissia controversa*, *Funaria hygrometrica*, *Tortula muralis*, *Asplenium platyneuron* and *Cystopteris fragilis*, 28 Aug 1984 (5) EGW].

Pohlia annotina var. *decipiens* Loeske [**Harford Co.:** ****Susquehanna River at Lapidum, on wet soil on the bank of an old canal, 1 Nov 1961 (3131) EGF].

Pohlia cruda (Hedwig) Lindberg [**Baltimore Co.:** ****Dolfield Road, on a mica schist ledge near the road, 27 Jul 1959 (3132) HR].

Pohlia nutans (Hedwig) Lindberg [**Baltimore Co.:** ****Lone Hickory Farm, on soil in a woods, Apr 1961 (2007) EGW; ****Bonita Ave., on a road into the woods near the distillery, on the soil of a woods' road, growing with *Dicranum flagellare*, 24 Sep 1964 (3134) EGW] [**Garrett Co.:** ****Swallow Falls State Park, on the vertical face of the ledge forming Swallow Falls, 28 Sep 1963 (2466) EGW] [**Harford Co.:** ****U.S. Army Chemical Center, on fairly moist soil in a low woods under White Oak, Black Gum and Red Maple, 2 May 1961 (1984) EGW].

Pohlia wahlenbergii (Weber and Mohr) Andrews [**Carroll Co.:** ****Hughes Road in Finksburg, on a cement bridge abutment, 3 inches above the water level of Beaver Run, 11 Jul 1959 (2275) EGW; **on bare soil of the stream bank, 11 Jul 1959 (3135) EGW].

Rhodobryum roseum (Hedwig) Limpricht [**Baltimore Co.:** ****Bonita Ave., on the horizontal surface of a boulder, intermingled with *Thuidium delicatulum*, in a White Oak,

Red Maple, Sour Gum woods on the side of a small stream, 31 Jan 1960 (1905) EGW; ****Windsor Mill Road, on boulders along a small rill in a woods of White Ash and White Oak, 12 Nov 1960 (1908) EGW; ****Upper Melinda, on soil on ledges by a woodland stream on the property of A. Bell; growing with *Thuidium delicatulum*, 17 Mar 1973 (1910) EGW] [**Carroll Co.:** ****Estate of Bob Farley, on the bark of a 14 inch DBH *Quercus velutina*, growing at the base of the trunk, 5 Aug 1968 (1912) EGW] [**Frederick Co.:** ****Cunningham Falls State Park, on soil among the roots of trees (Black Birch, Canada Hemlock, Hop Hornbeam and Beech), growing with *Thuidium delicatulum*, 30 Jul 1961 (1907) (1909) EGW] [**Garrett Co.:** ****Pleasant Valley Recreation Area in Grantsville, 14 Jun 1958 (2544) EGW; **on the base of a White Oak, 14 Jan 1959 (1916) EGF].

39. MNIACEAE [Bryales] *Mnium affine* Bland ex Funck [**Baltimore Co.:** ****Gwynnbrook Ave. in F. Price's woods, in swampy soil in a Red Maple and Tulip-tree woods, associated with *Lophocolea heterophylla*, 10 Feb 1963 (2237) (2244) EGW; ****Garrison at the edge of a private road leading to the Greenbaum estate, on soil and partially on the rotting bark at the base of a Canada Hemlock, under Flowering Dogwood, 14 Mar 1964 (2243) EGW; ****Dover Road at D. Brewster's estate, on soil on boulders above a waterfall, 6 Jul 1964 (2247) EGW; ****Bonita Ave., 28 Jan 1968 (2246) EGW; ****Painter's Mill Road, on soil on the game refuge of McDonogh School, 3 Feb 1968 (2240) EGW] [**Carroll Co.:** ****Eldersburg at Martz Road, on loose clay and loam on a shaded bank, mixed with *Atrichum undulatum* and *A. crispum*, 19 Nov 1972 (2241) R. S. Farley] [**Garrett Co.:** ****Carey Run Sanctuary, on soil on the bank of a small stream under Canada Hemlock, 5 Oct 1963 (2236) HR; ****On rocks in a stream, Andrews Foray, 22-24 Sep 1989 (3361) Anna Felton] [**Washington Co.:** ****Along the Potomac River, 1 mile south of Route 40 and 5 miles west of Hancock, on soil on the bank of a woodland road, 19 Jul 1959 (2238) (2239) HR].

Mnium affine var. *rugicum* (Laurer) Bruch, Schimper, & Gumbel [**Baltimore Co.:** ****Windsor Mill Road, farm of R. Lucke, on a decorticated log in an open woods of Red Maple, White Oak, Swamp White Oak and Tupelo, 3 Feb 1968 (2245) EGW] [**Harford Co.:** ****Patterson Mill Road, on soil of the bank of Winter Run in a woods of American Beech, Mockernut Hickory, Red Maple, Sycamore and Witch Hazel, growing with *Mnium cuspidatum*, and *Conocephalum conicum*, 1 Nov 1967 (2242) EGW].

Mnium cuspidatum Hedwig [**Anne Arundel Co.:** ****Severn Run, on swampy soil, associated with *Sphagnum* and *Lygodium palmatum*, 16 Sep 1962 (2251) EGW] [**Baltimore Co.:** ****Kendig's Mill Road, on soil among grasses, associated with *Cirriphyllum illecebrum*, 7 Apr 1959 (2258) EGW; ****Garrison Forest Road and St. Thomas Lane, on the top and sides of a stone wall surrounding St. Thomas Church, 18 May 1959 (2253) EGW; **on bare places in the lawn of St. Thomas Church, 18 May 1959 (2257) EGW; ****Lone Hickory Farm, on the roots of Black Gum in a stream gully, from ground level to 1 foot high, 30 Aug 1959 (2517) EGW; **on soil near a pipe from an upper spring, under Red Maple and Arrow-wood, 27 Mar 1961 (2254) EGW; **on poor soil on a hillside, associated with *Panicum clandestinum*, 15 May 1961 (1999) EGW; **on the bank of a Gwynn Falls stream, on soil in a woods of Red Maple, and Black Willow, 28 Jan 1968 (2249) EGW; ****Painter's Mill Road, on soil near the bridge, 20 May 1961 (2000) EGW; ****Kendig's Mill Road, along the Western Maryland railroad, on the silty bank of a small rill in a Red Maple, Black Willow woods, 12 Apr 1964 (2252) EGW; ****Patterson, private woods of Dr. Hartline, on soil of the woods' road, growing with *Rhynchostegium serrulatum*, 9 Dec 1966 (2259) EGW; ****Park Heights Ave., on the sides of the driveway of H. Pumpian, on bare places in a lawn, and growing with *Astomum muehlenbergianum*, *Ceratodon purpureus*, *Pleuridium subulatum* and *Rhynchostegium serrulatum*, 8 Apr 1968 (2250) EGW; ****Old Belfast Road, on soil of a road bank, growing with *Bryhnia novae-angliae* and *Amblystegium varium*, 19 Feb 1973 (2248) EGW] [**Carroll Co.:** ****Hughes Road, on soil in a mesophytic woodland of Black Oak, Red Maple and Witch Hazel, 17 May 1961 (1998) EGW; ****Westminster Pike, on the bottom land of Liberty Reservoir in an open field which would be inundated if the lake were filled, 7 May 1966 (2256) EGW] [**Garrett Co.:** ****Casselman River and Route 40, on soil on a boulder near the river and picnic grove, 26 Sep 1964 (2515) EGW] [**Harford Co.:** ****Edgewood Arsenal at the woods road near the end of the airfield, on soil in a woods of Black Gum, Willow Oak, Spanish Oak and Pin Oak, 1 Mar 1963 (2255) HR].

Mnium hornum Hedwig [**Garrett Co.:** ****Casselman Bridge State Park, on the muddy bank of the Casselman River among grasses, 26 Sep 1964 (2261) EGW; ****Swallow Falls State Park, on soil under *Ilex decidua* and Witch Hazel, 28 Sep 1963 (2260) EGW] [**Harford Co.:** ****Mt. Road, in a seepage swamp under Red Maple, Sour Gum and White Oak, in a rut where water collected, mixed with *Aulacomnium palustre*, 15 Feb 1960 (2262) EGW].

Mnium medium Bruch, Schimper, and Gümberl [**Baltimore City**: ****Druid Hill Park, on soil under trees near a stream, 6 Mar 1966 (1127) EGW].

Mnium punctatum Hedwig [**Baltimore Co.**: ****Dover Road on D. Brewster's estate, on soil on a boulder at the edge of a stream above a waterfall, in an oak-Red Maple woods, 6 Jul 1964 (2265) EGW] [**Frederick Co.**: ****Cunningham Falls State Park, on thin soil covering boulders in a nearly dry stream in a woods of Canada Hemlock, Beech and Black Birch, associated with *Plagiochila asplenioides*, 30 Jul 1961 (2263) EGW] [**Garrett Co.**: ****Swallow Falls State Park, on rotting twigs and sticks on boulders in a nearly dry brook bed, 27 Sep 1964 (2266) EGW; ****On rock in a stream, Andrews Foray, 22-24 Sep 1989 (3362) Anna Felton] [**Prince George's Co.**: ****Beltsville Road, on moist soil and the lower portion of the trunk of *Nyssa sylvatica*, 10 Oct 1962 (2267) EGW].

Mnium punctatum var. *elatum* Schimper [**Baltimore Co.**: ****Greenspring Ave., 4 miles from Glyndon, 13 Aug 1957 (3271) EGW].

42. BARTRAMIACEAE [Bryales] *Bartramia pomiformis* Hedwig [**Allegheny Co.**: ****Green Ridge State Forest, Fifteen Mile Creek Campground, 3-4 May 1975 (2552) EGW] [**Baltimore Co.**: ****Upper Melinda, on soil along a road in a mesophytic woods, growing with *Aulacomnium heterostichum* and *Cirriophyllum boscii*, 21 Jun 1961 (2696) EGW; ****Pretty Boy Reservoir near Gunpowder Road, on ledges along the river, 28 Apr 1962 (2662) EGW; ****Soldiers' Delight, on soil of a steep bank along the road just before the covered spring, 2 Mar 1968 (2699) EGW; ****Dolfield Road, on ledges of Wissahickon schist in a woods of White Oak, Black Oak, Chestnut Oak, Mockernut Hickory and Red Maple, 21 Apr 1968 (2684) (2695) EGW; ****Upper Melinda, on the northeast side of Bonita Ave., in a mesophytic woodland of Tupelo, Beech, Tulip-tree and White Oak, 26 Jun 1971 (2692) EGW; ****Pretty Boy Reservoir, on soil on a rock in a woods along the Gunpowder River downstream from the dam, growing interspersed with *Plagiochila asplenioides* and *Thuidium delicatulum*, 22 Mar 1975 (2521) EGW] [**Carroll Co.**: ****Hughes Road, on soil in a woodland of Black Oak, Red Maple and hickory, 17 May 1961 (1985) Waiva D. Reese; **on ledges, 1 May 1965 (2697) EGW; **on soil along a wood's road running parallel to a small tributary stream, 4 Oct 1974 (2691) EGW; ****Kay's Mill Road, on ½ inch of soil on Wissahickon schist ledges near the bridge, growing with *Frullania asagrayana* and *Aulacomnium heterostichum*, 15 Mar 1969 (2698) EGW] [**Harford Co.**: ****Greene's Road, on the ledges of "Castle Rock" beside Deer Creek, in a mesophytic woodland, 1959 (2684) EGW].

Philonotis fontana (Hedwig) Bridel [**Baltimore Co.**: ****Soldiers' Delight, on soil at bases of *Andropogon scoparius* and *Sorghastrum nutans*, in fairly moist soil along a small stream, 21 Jun 1958 (2879) EGW; **on soil on the bank of a small rill in the serpentine barrens, 15 Aug 1964 (2880) HR] [**Garrett Co.**: ****Pleasant Valley Recreation Area in Grantsville, on lake shore mud, 14 Jun 1959 (2495) EGW; ****Carey Run Sanctuary, on soil at the edge of a small stream in a meadow, 5 Oct 1963 (2496) EGW; ****Casselman Bridge State Park, on wet soil along the Casselman River, 26 Sep 1964 (2497) EGW].

Philonotis marchica (Hedwig) Bridel [**Garrett Co.**: ****Swallow Falls State Park at Muddy Falls, on wet ledges of the falls in trickling water, 27 Sep 1964 (2498) EGW].

Philonotis uncinata (Schwaegrichen) Bridel [**Baltimore Co.**: ****C. G. Francis & Son Green Houses, on Old Harford Road, on soil in pots of rose cuttings in the greenhouse, associated with *Anthoceros punctatus* and *Trematodon longicollis*, 22 Mar 1963 (2499) HR].

43. AULACOMNIACEAE [Bryales] *Aulacomnium heterostichum* (Hedwig) Bruch, Schimper & Gumbel [**Allegheny Co.**: ****Green Ridge State Forest, Fifteen Mile Creek Campground, 3-5 May 1975 (2548) EGW] [**Baltimore Co.**: ****Dolfield Road, on mica schist ledges near the road, 27 Jul 1959 (2611) EGW; ****Soldiers' Delight, on soil in an open woods of Virginia Pine and oak, growing with *Lophocolea heterophylla*, *Thuidium delicatulum* and *Dicranum scoparium*, 8 Apr 1960 (2588) EGW; ****Upper Melinda, on soil along a road cut in a woods of Tulip-trees, Mockernuts, etc., associated with *Bartramia pomiformis* and *Cirriphyllum boscii*, 24 Jun 1961 (2589) EGW; **on soil along a road cut in a mesophytic woods of Tulip-trees, abundant along the road, associated with *Cirriphyllum boscii* and *Bartramia pomiformis*, 21 Jun 1961 (2590) WDR; ****Silver Run near Gunpowder Road above Pretty Boy Reservoir, on soil along the bank of Silver Run under oaks, hickories and hemlocks, 28 Apr 1962 (2609) EGW] [**Carroll Co.**: ****Hughes Road, on soil in a mesophytic woodland of Black Oak, Red Maple and Witch Hazel, 17 May 1961 (1982) EGW; ****Hughes Road, Finksburg, on soil of a road bank of a woods' road, 1 May 1965 (2587) EGW; **on a shaded bank, 18 Nov 1973 (2283) R, S. Farley III; ****Kay's Mill Road, on about 1 inch of soil covering ledges of Wissahickon schist, growing with *Bartramia pomiformis*, 15 Mar 1969 (2284) EGW] [**Washington Co.**: ****Along the Potomac River, 1 mile south of Route 40 and 5 miles west of Hancock, on soil of the bank of a woodland road, 19 Jul 1959 (2581) EGW; ****Mt.

Aetna Youth Camp near Smithsburg, on soil in a woods of oak, hickory, Spicebush and Tulip-tree, 27 Jul 1969 (2579) EGW].

Aulacomnium palustre (Hedwig) Schwaegrichen [**Anne Arundel Co.:** ****Route 50, 1 mile west of the Bay Bridge, on a very rotten fallen log in the mud, associated with *Alnus serrulata* and *Ilex decidua*, 19 Nov 1960 (2598) EGW; ****Log Inn Road at the Cocoran Environmental Study Area, on the edge of a transient pool in a low wet woods, 16 Feb 1984 (2416) EGW]. [**Baltimore Co.:** ****Lone Hickory Farm, on soil at the base of *Dryopteris cristata*, *Osmunda cinnamomea*, *Dryopteris thelypteris* and *Carex stricta*, intermixed with *Sphagnum palustre* and *Polytrichum ohioense*, 4 Jun 1967 (2564) EGW; ****Soldiers' Delight, on soil near a stream (2593) EGW; **at the edge of a small stream on soil among grass roots, 15 Aug 1959 (2591) (2596) (2597) EGW; **on soil near a stream, Feb 1960 (2604) EGW; **on wet swamp soil along a small rill, 22 Nov 1962 (2606) EGW; **near a big storm pipe under Dolfield Road, on soil (duff) under *Pinus virginiana*, 14 Mar 1965 (2323) EGW; **on soil along bank of small rill, 14 Mar 1965 (2592) EGW; **on soil among *Andropogon scoparius* and *Sorghastrum nutans*, in an open field along a small stream, 13 Oct 1967 (2602) EGW; ****Ebenezer Road at Grace's Quarters, on moist soil of a seepage swamp, associated with Red Gum and Willow Oak, 26 Apr 1961 (1983) (2607) EGW; ****Timber Grove Road and Bond Ave., on moist swamp soil in a woods along a small rill, associated with *Pallavicinia lyellii*, 22 Sep 1962 (2310) EGW] [**Carroll Co.:** ****Hughes Road, on soil of the bank of a road in a woods of Black Oak, Red Maple, Witch Hazel and American Hazelnut, associated with *Dicranella heteromalla*, *Mnium cuspidatum*, *Bartramia pomiformis* and *Atrichum undulatum*, 17 May 1961 (2599) EGW] [**Cecil Co.:** ****Route 40 between Elkton and Perryville, on moist soil in depressions from a wagon wheel, in a Red Maple, Red Gum and Sour Gum woods, 12 May 1965 (2605) EGW] [**Garrett Co.:** ****Pleasant Valley, growing in the upper bog, 14 Jun 1958 (2537) EGW; ****Finzel Swamp, on low swampy ground with *Picea rubens*, *Festuca ovina*, *Pallavicinia lyallii* and *Sphagnum* sp., 3 Jun 1984 (2904) (2529) EGW] [**Harford Co.:** ****Mountain Road, in a seepage swamp in ruts of a woods' road where water collects, under Red Maple and Sour Gum, mixed with *Polytrichum commune*, 15 Feb 1960 (2608) (2595) EGW; ****Edgewood Arsenal, on soil in a woods of Black Gum, Pin Oak, Willow Oak, White Oak, Spanish Oak and Black Oak, at the end of the airfield, 1 Mar 1965 (2594) HR; **near a dirt road into the woods at the end of the airfield, on soil in woods of Pin Oak, Large-toothed Aspen, Oblongleaf Shadblow, Red Gum, Maleberry and Pinkster-bloom Azalea, 25 Apr 1968 (2601) EGW] [**Somerset Co.:** ****Irish Grove

Sanctuary near Marion, on soil in wagon ruts partially filled with water, in a *Pinus taeda* woods, 1 Dec 1968 (2584) EGW; **on soil, 12 Apr 1970 (2559) EGW].

47. CLIMACIACEAE [Leucodontales] *Climacium americanum* Bridel [**Allegany Co.:** ****Green Ridge State Forest at Fifteen Mile Creek Campground, 3-4 May 1975 (2550) (2551) EGW] [**Baltimore Co.:** ****Loch Raven Dam, growing on soil in the open on a bank with *Rhytidiadelphus triquetrus* and *Ctenidium molluscum*, Mar 1975 (2225) EGW; ****Pretty Boy Reservoir, on wet soil in woods along the Gunpowder River down stream from the dam, woods of Yellow Birch, Hop Hornbeam, Black Birch, White Oak, American Hazelnut, Mockernut Hickory, Hornbeam, Red Maple, Oblong-leaf Shadbush and Mountain Laurel, 22 Mar 1975 (2224) (2228) EGW] [**Frederick Co.:** ****Cunningham Falls State Park, on soil in a field surrounded by Hop Hornbeam, Canada Hemlock, Black Birch and Beech, 30 Jul 1961 (1988) (1989) EGW].

Climacium dendroides (Hedwig) Weber & Mohr [**Baltimore Co.:** ****Little Gunpowder Falls at Bottom Road, on ledges and boulders of Wissahickon schist along a stream, near the U. S. Geological Survey stream flow measuring station, 7 Mar 1966 (1005) EGW].

48. NECKERACEAE [Leucodontales] *Thamnobryum alleghaniense* (C. Müller) Nieuwland [**Carroll Co.:** ****McKeldin Park, on damp rocks on the shaded north side, associated with Walking Fern, Maidenhair Fern, Silvery Spleenwort, Bladdernut, *Rhodobryum* and *Bazzania*, 9 Oct 1963 (1854) EGF].

51. LEUCODONTACEAE [Leucodontales] *Antitrichia curtispindula* (Hedwig) Bridel [**Baltimore Co.:** ****Valley Nursery on Valley Road, in flower pots sold by Valley Nursery, probably from the Pacific Coast, 15 Jun 1961 (2305) EGW].

Leucodon julaceous (Hedwig) Sullivant [**Baltimore Co.:** ****Soldiers' Delight, on the base of a Blackjack Oak, 5 Sep 1955 (3317) WDR].

54. LESKEACEAE [Hypnales] *Amomodon attenuatus* (Hedwig) Hübener [**Allegany Co.:** ****Little Orleans, on the vertical face of the stone blocks of the canal, 18 Jul 1959 (2719) EGW] [**Baltimore Co.:** ****Woodstock College, on the bark of a Pignut Hickory at the base of the trunk, 6 Aug 1959 (2723) EGW; ****Worthington Ave., on the roots of a large (DBH 3 feet) White Oak beside a small pond, 16 Aug 1959 (2728) EGW; ****Lone Hickory Farm, on the bark of a White Oak, about 1¼ feet up from the ground

level, 26 Dec 1959 (504) (2712) EGW; ****Pikesville at Woodholm Road, on the vertical face of the stone side of a small bridge, 20 Mar 1960 (2709) EGW; **at Woodholm Road, on the bark of a White Oak (2.5 feet DBH), growing from ground level to a height of 2 feet, 20 Mar 1960 (2718) (2729) (2730) EGW; ****Windsor Mill Road, on boulders along a small rill, in a woods of White Ash and White Oak, 12 Nov 1960 (2704) (2705) (2755) HR; **on soil at the base of a White Oak in a swampy woods, 3 Feb 1968 (2710) EGW; ****Caves Road, on the bark, in the crotch of an 18 inch DBH, *Ulmus americana*, about 2 feet above the ground, 6 Feb 1963 (2725) EGW; ****Reisterstown, on bricks of a window well of a church, 10 Feb 1963 (2724) EGW; ****Greenspring Ave., in a woods on the base of a White Oak, 13 inches DBH, 28 Feb 1965 (2713) (2714) EGW; ****Padonia Road, about 200 feet from May's Chapel Road, on bark at the base of a *Quercus alba*, 26 Apr 1966 (2726) EGW; ****Bonita Ave. and Worthington Ave. on the Foster estate, on cement in the crevices of a stone wall beside the house, associated with *Orthotrichum strangulatum* and *Tortula muralis*, 23 Dec 1972 (2302) EGW] [**Frederick Co.:** ****Cunningham Falls State Park, on boulders in a nearly dry small rill in a woods of Canada Hemlock, Black Birch and Hop Hornbeam; growing with *Eurhynchium riparioides*, 30 Jul 1961 (2708) (2716) EGW] [**Harford Co.:** ****Up river from Lapidium, on a dry rock, 17 Mar 1959 (2711) EGW; ****Greene's Road over Deer Creek near Norrisville, on the top edge of a concrete bridge abutment, growing with *Leskea gracilescens*, *Hedwigia ciliata* and *Grimmia apocarpa*, 9 Jul 1959 (2707) (2715) EGW; ****Laurel Brook Road, on the vertical face of a Wissahickon schist ledge in a woods of White Oak and Tulip-trees, 4 Mar 1966 (2865) EGW] [**Montgomery Co.:** ****Great Falls National Park, between the Billy Goat Trail and the C & O Canal, on the bark of *Fraxinus americana*, 28 inches DBH, in a mesophytic woods in a low moist area, 8 Mar 1984 (2527) EGW] [**Talbot Co.:** ****Wye Mills, Route 662, on the bark of *Ulmus americana*, 1¼ inches DBH, 4 feet above the ground, in a Sycamore and American Elm woods, 22 Jul 1958 (2700) EGW; **on the bark of the Wye Oak, 10 May 1964 (2721) HR; **at Route 662, 0.6 mile from Route 50, on soil in a seepage swamp along a small stream in a woods of Sycamore, Tulip-tree and Swamp White Oak, 19 Feb 1966 (2706) EGW; **at Route 662, 0.6 mile from Route 50, on the base of a large Sycamore and soil in a seepage swamp, 19 Feb 1966 (2722) EGW].

Anomodon minor (Hedwig) Furnrohr [**Baltimore Co.:** ****Patapsco State Park, on a rock abutment of a high stone bridge over a rill, 6 July 1963 (2732) EGW; ****Chatsworth Ave., at All Saint's Church yard in Reisterstown, on the bark of *Quercus*

alba leaning across the driveway, 30 inches DBH, from ground level to 18 inches up the trunk, 28 Nov 1971 (2748) EGW].

Anomodon rostratus (Hedwig) Schimper [**Baltimore Co.:** ****Worthington Ave., on soil at the base of a White Oak in a woods near a small pond, 16 Aug 1959 (2738) EGW; ****Upper Melinda, growing on a sloping (45°) boulder beside a small stream in a mixed mesophytic woods of White Oak, Sour Gum and Red Maple, 31 Jan 1960 (2742) EGW; ****Paper Mill Road, about 75 yards from a high bridge over the upper end of Loch Raven, on projecting ledges of mica schist in a mixed deciduous woods, 8 Apr 1960 (2737) EGW; ****Chatsworth Ave., at All Saint's Church yard in Reisterstown, on the bark of a White Oak, 4 feet DBH, moss growing from ground level to a height of 13 inches, 3 Apr 1961 (2745) EGW; ****Dover Road, 1/3 mile from Greenspring Ave., on a rotten Chestnut stump, 6 Feb 1963 (2741) EGW; ****Loch Raven Reservoir, Dulaney Valley Road near the Bosley Road Quarry, 10 Mar 1968 (2735) (2736) EGW; ****Brooklandville at Park School on Old Court Road, on Cockeysville marble in a wooded abandoned quarry, 3 Jul 1969 (2727) EGW] [**Carroll Co.:** ****Kay's Mill Road in Finksburg, at the base of a White Oak, from ground level to a foot up the trunk, in a woods of oak, hickory and Tulip-tree, 19 Jul 1959 (2740) EGW; **30 feet from Beaver Run, at the base of a stump (3 feet diameter), from ground level up to a height of 1½ feet, intermixed with small amounts of *Anomodon attenuatus* and *Mnium cuspidatum*, 13 Apr 1961 (1978) EGW] [**Harford Co.:** ****Lapidum, on rock in thick mats, 17 Mar 1959 (2747) EGW; ****U.S. Army Chemical Center, on the bark of a Red Gum tree (DBH 3 inches) from the ground to a height of about 3 inches, 8 May 1962 (2744) EGW] [**Washington Co.:** ****Potomac River, 1 mile south of Route 40 and 5 miles west of Hancock, on bark at the base of a White Oak (18 inches DBH) 19 Jul 1959 (2749) (2752) HR; ****Harpers Ferry, on rock ledges along the C & O Canal, about 50 feet from the canal, 7 Aug 1959 (2733) EGW] [**Worcester Co.:** ****Milburn Landing State Park, on a rotting stump, 24 Jul 1965 (2743) EGW].

Bryohaplocladium (Synonym: *Haplocladium*)

Bryohaplocladium microphyllum (Hedwig) Watson & Iwatsuki [**Baltimore Co.:** ****Lone Hickory Farm in the upper spring woods, on the prostrate roots (in the brook bed) of a White Ash, 30 Aug 1959 (2090) EGW; ****Perry Point Vets Hospital, on the bark of a large fallen oak, 27 Nov 1960 (124) EGW; ****Bonita Ave. at the G. P. Mahoney Farm, on a decorticated *Castanea dentata* log, in an oak and Tulip-tree woods, 5 Apr 1964 (125) HR; ****Park Heights Ave., on the property of H. Pumpian, on bare

places in the lawn, associated with *Astomum muehlenbergianum*, *Ceratodon purpureus*, *Pleuroidium subulatum* and *Rhynchostegium serrulatum*, 8 Apr 1968 (2093) EGW] [**Carroll Co.:** ****Kay's Mill Road, on bark at the base of a White Oak from near ground level to a height of about 1½ feet, in a mesophytic woods of oak, hickory and Tulip-tree, 10 Jul 1959 (2087) EGW] [**Harford Co.:** ****U. S. Army Chemical Center, near the edge of the Bush River, on an old log (2½ feet DBH) lying partly in the Bush River, 19 Jun 1961 (2094) EGW] [**Prince George's Co.:** ****Accokeek, near the bridge on the bank of Mattawoman Creek, on rotting wood in a mesophytic woods of *Rhus toxicodendron*, *Podophyllum peltatum*, *Liquidambar styraciflua*, *Quercus prinus*, *Polystichum acrostichoides*, *Asplenium platyneuron*, *Thelypteris noveboracensis* and *Smilax*, 9 Jul 1967 (2092) EGW] [**Talbot Co.:** ****Md. Route 662, about 0.6 mile from Route 50 and 1 mile southwest of Wye Mill, on the trunk of a fallen tree in a seepage swamp along a small stream, in a woods of Sycamore, Tulip-tree and Swamp White Oak, 19 Feb 1966 (126) HR] [**Wicomico Co.:** ****Pocomoke Swamp, 18 miles from Ocean City, on a rotting log, growing with *Tortella humilis* and *Thuidium delicatulum*, 12 May 1962 (2088) EGW].

Bryohaplocladium virginianum (Bridel) Watson & Iwatsuki [**Baltimore Co.:** ****Reisterstown at All Saints Cemetery, on soil in grass around the grave stones, 24 May 1959 (2099) HR; ****Soldiers' Delight, near a large storm pipe on Dolfield Road, on soil under *Pinus virginiana*, 14 Mar 1965 (2889) EGW; **near a deep mine opening by a lumber company off Deer Park Road, on soil with *Dicranum scoparium*, 30 Dec 1967 (2888) EGW; ****Pretty Boy Reservoir, near Bollinger Road, on the base of a White Oak, 9 Mar 1973 (127) EGW] [**Harford Co.:** ****U.S. Army Chemical Center, at the edge of the Bush River, on a decorticated old oak log (2½ feet DBH) lying partly in the Bush River, 19 June 1961 (2013) EGW].

Haplohymenium triste (Ces ex De Notaris) Kindberg [**Baltimore Co.:** ****Soldiers' Delight, on the bark at the base of a *Quercus stellata* from ground level up to 10 inches on the trunk, growing with *Anomodon tristis*, *Porella platyphylloides* and *Tortella humilis*, 15 Aug 1959 (2887) EGW; ****Bond Ave. and Timbergrove Ave., on the bark of a prostrate Tulip-tree log, 30 May 1962 (3370) EGW] [**Queen Anne's Co.:** ****Wye Mills on the bark of the Wye Oak, *Quercus alba*, associated with *Anomodon attenuatus* and *Leskea gracilescens*, 19 Nov 1960 (128) EGW].

Helodium paludosum (Sullivant) Austin [**Baltimore Co.:** ****Lone Hickory Farm, on soil at the base of *Carex stricta* dollops in swamp next to the woods, 27 Oct 1963 (145)

HR; **on moist soil in large mats at the edge of the bass pond, 4 Apr 1964 (144) HR; **on soil at the edge of the bass pond, growing with *Hynum lindbergii*, *H. patientiae* and *H. arcuatum*, mingled among the grasses and sedges at the very edge of the water, 16 Sep 1967 (148) EGW; **on soil in a swampy area between two meadows, 11 May 1968 (146) EGW; **on swampy soil near a stream, growing with *Viola primulifolia*, 28 May 1966 (149) EGW] [**Harford Co.:** ****Edgewood, Willoughby Beach Road, 100 yard west of Flying Point Road, in a mesophytic frondose woods, 7 Dec 1967 (147) EGW; ****Edgewood, 1804 Nuttal Ave. on the estate of Lynn Sherman, on moist soil under trees on low swampy ground, 11 Aug 1984 (3371) EGW].

Leskea gracilescens Hedwig [**Allegany Co.:** ****Bank of the Potomac River, 5 miles upstream from Hancock, on a very rotten trunk of a dead cherry tree, 2 feet above the ground, 18 Jul 1959 (517) EGW; **on bark at the base of an American Elm, extending from soil level up the trunk for 10 inches (DBH 2½ feet) 18 Jul 1959 (515) EGW] [**Baltimore Co.:** ****Falls Road north of Shawan, on the top of a stone wall in the shade, 23 Jun 1958 (522) EGW; ****Lone Hickory Farm, on prostrate roots of White Ash in a brook bed in the upper spring swamp, growing with *Haplocladium microphyllum*, *Mnium* and *Campylium chrysophyllum*, 30 Aug 1959 (508) (521) HR; **on the wood of a rotting exposed root of a Norway Maple, 19 Sep 1963 (509) EGW; **at the base of a large White Oak tree (3 feet DBH) from near ground level up 1½ feet on the trunk, growing with *Platygyrium repens*, *Frullania eboracensis* and sterile *Parmelia* spp. and *Cladonia* spp., 26 Dec 1967 (520) EGW; ****Bond Ave., 100 feet from Timbergrove Road, on clayey soil on top of a 2 foot high road cut at the edge of a woods, 20 Mar 1960 (513) EGW; ****Gynnbrook Ave., on the stone masonry on the side of a small bridge, associated with *Bryum argenteum* and *Grimmia apocarpa*, 16 Jul 1961 (518) EGW; ****Caves Road, 35 yards from Park Heights Ave., on a cement wall of a small bridge over a rill, 10 Dec 1961 (514) EGW; ****Bonita Ave., Owings Mills, on the bark of *Salix nigra*, 9 inches DBH, associated with *Platygyrium repens*, 24 Mar 1962 (516) EGW; ****Patapsco State Park, on a decorticated root of a dead tree along a small stream in an oak-hickory-beech woods, 6 Jul 1963 (511) EGW; ****Harford Road near Notch Cliff Road, on the bark at the base of *Salix nigra*, 4 Nov 1964 (519) HR; ****Milton Inn on Old York Road, at the base of a large Sycamore, DBH 3 feet 8 inches, growing from ground level up the trunk about 2½ feet, 7 Mar 1973 (507) EGW] [**Carroll Co.:** ****Hughes Mill Road, on the trunk of a White Oak, from ground level up 1 foot, DBH 1½ feet, 14 Nov 1959 (502) HR; ****Hampstead, North Main Street, on the bark of a Norway Maple, 6 feet above the ground, 19 Jan 1960 (503) (3124) HR] [**Frederick Co.:** ****Libertytown, farm of J.

Grabenstein, on the base of a Black Locust on the lawn, from ground level to 10 inches high, 27 Dec 1959 (506) EGW; ****Cunningham Falls State Park, on boulders near a dry stream, moss not submerged, associated with *Eurhynchium riparioides*, in a woods of Canada Hemlock, Hop Hornbeam and Black Birch, 30 Jul 1961 (505) (512) EGW] [**Washington Co.:** ****Near the Potomac River, about 1 mile south of Route 40 and 5 miles west of Hancock, on bark at the base of a 4 inch Red Maple about 3 inches above the ground; 19 Jul 1959 (510) EGW].

Leskea obscura Hedwig [**Baltimore Co.:** ****Reisterstown on the grounds of the old Franklin High School, on the bark of a Norway Maple, 3 feet DBH, growing 5 feet above the ground, 12 Nov 1962 (523) EGW] [**Carroll Co.:** ****Hughes Road at Beaver Run, closely adherent to a large boulder (4 x 3 feet) in a stream, moss was ½ foot above the surface of the stream (524) EGW].

Leskea polycarpa Hedwig [**Baltimore City:** ****Gwynns Falls Park, about 1/3 mile from Gwynns Falls Parkway, on a steeply sloping ledge on Clifton Ave., 17 May 1959 (529) HR] [**Baltimore Co.:** ****Lone Hickory Farm, on the bark of Red Maple roots exposed at the edge of a small stream gully, 5 Apr 1964 (526) HR] [**Harford Co.:** ****Little Gunpowder River near the Old Philadelphia Road, on shady soil on the bank of the river under Tulip-trees and Sycamores, 1 Jun 1965 (525) EGW].

Lindbergia brachyptera (Mitten) Kindberg [**Baltimore City:** ****Alley between Cold Spring Lane and Overhill Road, on the shaded damp top of a stucco wall of a garage, 16 Jan 1966 (2614) EGF].

55. **FONTINALACEAE** [Hypnales] *Dichelym capillaceum* (Withering) Myrin [**Kent Co.:** ****About 0.7 miles north of Golts, in hanging festoons on bark at the bases of Buttonbush, *Cephalanthus occidentalis*, 4 Feb 1962 (2975) (2976) (2977) (2978) EGW; ****About 2 miles east of Massey, on the bark of Persimmon, 10 inches DBH, on bark up the trunk to a height of 1 foot (also at the base of a Red Maple 12 inches DBH) 5 Mar 1963 (259) EGW] [**Washington Co.:** ****Reichard Road (east side) 2 miles south of Route 68, growing at the spring fed Marl Marsh, great masses of moss floating in and on fallen branches, 12 Apr 1984 (3106) A. Norden].

Fontinalis antipyretica Hedwig [**Frederick Co.:** ****Frederick Water Shed, growing on the bottom of a stream, entirely underwater, 21 Oct 1960 (2167) EGF].

Fontinalis dalecarlica Bruch, Schimper & Gmbel [**Baltimore Co.:** ****Padonia Road, growing in a stream, 23 Jan 1960 (2169) EGF; ****Upper Melinda, on rocks in a small rill, associated with *Fissidens minutulus*, 26 Aug 1962 (2168) (2170) (2171) WHW] [**Garrett Co.:** ****Swallow Falls State Park, underwater in a side stream, 14 Jun 1958 (2519) EGW].

Fontinalis hypnoides C. J. Hartman [**Frederick Co.:** ****Cunningham Falls State Park, on a wholly immersed boulder (9 inches in diameter) in a small stream near the camp area, 30 Jul 1961 (2172) EGW].

Fontinalis novae-angliae Sullivant [**Baltimore Co.:** ****Dover Road at D. Brewster's estate, on wet soil on boulders at a waterfall, inundated, 6 Jul 1964 (2178) EGW; ****Lone Hickory Farm, growing submerged on rocks in a brook, 6 Jan 1968 (2173) (2174) (2175) (2176) (2177) (2585) WHW] [**Garrett Co.:** ****Carey Run Sanctuary, on a rock in a rill under hemlocks, 5 Oct 1963 (2180) EGW; **on rocks in a small stream in an open field, submerged except during dry periods, 9 Oct 1964 (2179) EGW] [**Worcester Co.:** ****Milburn Landing State Park, on the base and roots of Bald Cypress along the edge of the Pocomoke River, associated with *Bignonia capreolata*, *Campsis radicans* and *Nuphar advena*, very abundant all along the shore near the wooden boat dock on roots of trees-- mostly Bald Cypress, 11 May 1963 (2181) (2182) (2183) WHW].

56. THUIDIACEAE [Hypnales] *Thuidium delicatulum* (Hedwig) Bruch, Schimper & Gmbel [**Allegany Co.:** ****Route 40, 1 mile east of Shipway's Motel, on leaves and twigs in a woods, 10 Oct 1965 (2078) EGW; **on soil in an oak-hickory-tupelo woods, 10 Oct 1965 (2079) EGW; ****Green Ridge State Forest at Fifteen Mile Creek Campground, 3-5 May 1975 (2553) EGW] [**Baltimore Co.:** ****Worthington Ave., on soil near a small pond in a mixed deciduous woodland of White Oak, Red Maple and Spicebush, 16 Aug 1959 (2084) EGW; ****Upper Melinda, on a sloping boulder beside a small stream in a mixed deciduous woods of White Oak, Red Maple and Sour Gum, growing with *Brachythecium plumosum*, 31 Jan 1960 (2098) EGW; **on a rotting log about 8 feet from a small stream under deciduous trees, growing with *Trichocolea tomentella*, 14 Feb 1960 (2075) (2085) HR; **growing in a low swampy spot along a brook in the woods, 9 Jan 1966 (2077) EGW; **on soil in tufts on a shaded bank beside the road, 18 Mar 1972 (2156) EGW; **on soil on a bank by the road, 4 Jan 1973 (2152) EGW; ****Timbergrove Road and Bond Ave., on the surface of a decorticated rotting log in a Chestnut Oak and

Flowering Dogwood woods, 2 Jun 1962 (2096) EGW; ****Lake Roland, Robert E. Lee Memorial Park, on soil on ledges under Black Oak, Beeches and Locust trees, 3 Nov 1963 (2082) HR; ****Bonita Ave in G. P. Mahoney's corner woods, on wet soil in a Red Maple woods, 17 Nov 1963 (2154) HR; ****Greenspring Ave., on soil in a woods, 16 Mar 1966 (2081) HR; ****Loch Raven Dam Road, about 0.3 mile from Cromwell Bridge Road, between the upper and lower dams, on soil in a grass verge between a woods and a road, growing with *Bryoandersonia illecebra*, *Rhytidiadelphus triquetrus* and *Climacium americanum*, 5 Apr 1975 (2155) EGW] [**Frederick Co.:** ****Cunningham Falls State Park, on a rock, associated with Hop Hornbeam, Canada Hemlock, Black Birch and Beech, 30 Jul 1961 (2014) EGW; **on the base of an American Beech tree, partly on the bark and partly on soil, associated with *Polytrichum ohioense*, 30 Jul 1961 (2076) EGW] [**Garrett Co.:** ****Casselman Bridge State Park at the picnic area, on the base of a White Oak and partly on soil, 26 Sep 1964 (2150) EGW] [**Harford Co.:** ****Little Gunpowder Falls at Bottom Road, on ledges and boulders of Wissahickon schist along a stream near the U. S. Geological Survey stream flow measuring station, 4 Mar 1966 (2866) EGW] [**Washington Co.:** ****Fort Frederick, on a rock culvert in the picnic area of the park, 28 Sep 1969 (2149) EGW] [**Worcester Co.:** ****Route 113, about 2 miles southwest of Shad Landing and 1 mile north of Route 756, on the base of a stump in a Red Maple swamp, 20 Feb 1966 (2080) EGW; ****Milburn Landing State Park, in a swamp along the edge of the Pocomoke River, 1 Jun 1968 (2148) EGW].

Thuidium minutulum (Hedwig) Bruch, Schimper, & Gmbel [**Harford Co.:** ****Big Gunpowder Falls tributary, on the east side of the stream, growing on moist soil along the bank, 22 Aug 1967 (2153) A. W. Westling]

Thuidium scitum (Palisot de Beauvois) Austin [**Baltimore Co.:** ****Brooklandville at Fallscroft Road near a swamp, on the base of a large White Oak, 22 Jan 1963 (2920) EGF] [**Carroll Co.:** ****Kay's Mill Road, on the cut surface of an old Chestnut stump in an oak-hickory woods, 11 Jul 1959 (2101) EGW].

58. THELIACEAE [Hypnales] *Thelia asprella* Sullivant [**Baltimore Co.:** ****Pretty Boy Reservoir at Backbone Road in the area near the Dam, on a rock wall at a spring, 25 Nov 1960 (2128) EGF; ****Soldiers' Delight, on dry soil among *Andropogon scoparius* bases near a small pool formed in a surface dig, 14 Mar 1965 (2132) EGW; ****Piney Grove Road and Longnecker Road at Dave Rhode's estate, at the base of a Black Oak with part on the trunk and part on the soil, 24 Oct 1965 (2130) EGW]. [**Carroll Co.:** ****Kay's

Mill Road, on the vertical side of a Chestnut stump from ground level up to a height of 11 inches with none growing on the soil, in a woods of White Oak, Black Oak, and Mockernut Hickory, 1 Jan 1960 (2125) (2126) (2127) EGW; ****Oakland Road, "Mt. Nebo" at Shervettes Corner, on a rotten stump in a swampy woods along a stream, 29 Dec 1965 (994) EGF] [**Garrett Co.:** ****Pleasant Valley, on bark at the base of a tree along the trail to the upper bog, 14 Jun 1958 (2525) EGW; ****Swallow Falls State Park, on the bark of a White Oak, growing from ground level to a height of 4 feet up the trunk, 28 Sep 1963 (2129) HR; **on the bark of a White Oak, from ground level up to 1 foot, 28 Sep 1963 (2147) EGW].

Thelia hirtella (Hedwig) Sullivant [**Baltimore Co.:** ****Ebenezer Road in Chase, near Grace's Quarters, on the bark of *Quercus alba*, in a seepage swamp on the Coastal Plain, 7 Feb 1961 (3139) EGW; ****King Point Road (west side) ½ mile north of Philadelphia Road, on the bark of a White Oak (18 inches DBH) from soil level to 1 foot up the trunk, at the edge of a Red Maple, White Oak and Sour Gum woods, 3 Apr 1962 (2069) EGW; ****Soldiers' Delight, on soil at the base of a *Quercus prinus* in the woods by Chimney Branch Creek, 7 Jan 1973 (2124) (2133) EGW] [**Harford Co.:** ****U.S. Army Chemical Center, on the bark of a White Oak (4 inches DBH) from ground level to a height of 10 inches but none on soil, in a mixed mesophytic deciduous woodland of Red Gum, Red Maple, Willow Oak and Spanish Oak, 23 Sep 1959 (2066) (2070) EGW; **at the base of a White Oak (8 inch DBH) 1 Mar 1965 (2134) EGW; **the back of the Biophysics Division, at the base of a very rotten White Oak stump, 12 Mar 1962 (2071) EGW] [**Somerset Co.:** ****Irish Grove Sanctuary near Marion, in a woods of *Pinus taeda*, *Quercus phellos* and *Liquidambar styraciflua*, 1 Dec 1968 (2583) EGW] [**Worcester Co.:** ****Pocomoke Swamp near Whaleyville, on the base of a tree in the swamp, 9 May 1959 (2073) EGW; **on the bark of a Red Maple, 10 May 1964 (2067) EGW; **on the roots of a Red Maple, 9 May 1965 (2131) EGW; **on a rotting log in the swamp, 9 May 1965 (3140) EGW; ****Route 113, about 2 miles southwest of Shad Landing and 1 mile north of Route 756, on the bark of a rotting stump, associated with *Frullania eboracensis*, 20 Feb 1966 (2068) EGW].

60. FABRONIACEAE [Hypnales] *Anacamptodon splachnoides* (Froel. ex Bridel) Bridel [**Baltimore Co.:** ****Soldiers' Delight, on a hillside on the south side of a small rill in an oak-hickory woods, growing in a knothole in the base of *Quercus prinus*, 28 Jan 1968 (2299) EGW] [**Harford Co.:** ****Edgewood Arsenal along Bush River Road, on the bark

of a *Quercus falcata* about 7 feet above the ground, growing in a rain track on the bark, 22 Jun 1967 (2300) EGW].

Schwetschkeopsis fabronia (Schwaegrichen) Brotherus [**Baltimore Co.:** ****Soldiers' Delight, in the woods along Chimney Branch stream, overlooking the *Gentiana crinita* area, on sticks (twigs) in a woods of White Oak, Chestnut Oak, Nine-bark, Mountain Laurel and American Beech, growing with *Cololejeunea biddlecomiae*, 7 Jan 1973 (1764) EGW; ****Bonita Ave. on the edge of the Baltimore Colt's practice field, on a stone wall in a woods about 30 feet from a small tributary of Gwynns Falls running under Bonita Ave., on a shady vertical surface, partly on cement between the interstices of the stones, 24 Feb 1984 (3137) EGW].

61. AMBLYSTEGIACEAE [Hypnales] *Amblystegium fluviatile* (Hedwig) Bruch, Schimper, & GümbeI [**Baltimore Co.:** ****Potts Spring Road at the northern end, growing under water on a rock, 25 Jan 1962 (183) EGF].

Amblystegium riparium (Hedwig) Bruch, Schimper, & GümbeI [**Allegheny Co.:** ****Middle of the Potomac River, ½ mile down stream from Little Orleans, on a submerged rock about 1 foot below the surface of the water; 18 Jul 1959 (2616) WHW] [**Baltimore Co.:** ****Route 40, ½ mile northeast of Edgewood Road, growing mostly above the water line on an old rotting, decorticated log lying in a swamp near the highway, 17 Jan 1961 (495) EGW; **on soil at the Horse Pond, associated with *Carex annectens* and cat-tails, 31 May 1961 (1996) EGW; **on a flat rock by the steps of the front porch, 5 Jun 1961 (2750) EGW; **on the cement sides of the upper spring well, 2 Dec 1962 (487) EGW; ****Reisterstown at the Wm. Goff feed store, on the wall of a wooden water tank in the attic of the store, 12 Jan 1963 (491) EGW; ****Paper Mill Road near Loch Raven Reservoir, on a decorticated rotting Chestnut branch, 3 inches in diameter lying on the ground in the woods near the high bridge, associated with *Ricciocarpus natans*; 16 Sep 1964 (489) EGW; ****Route 40, ¼ mile south of the Gunpowder River near picnic tables in a swampy woods, on soil and duff in a seepage swamp along the Gunpowder River, 20 Jan 1966 (492) EGW; ****Loch Raven Reservoir at Dulaney Valley Road, on marble rocks at the Bosley Road Quarry, moss submerged while growing but now exposed because the water had evaporated, 10 Mar 1968 (497) WDR] [**Harford Co.:** ****Army Chemical Center, on louvers on the inside of a large water cooler of wood, 5 Jan 1961 (488) (493) (496) HR; **under a large water cooled air conditioner, among *Lolium perenne* and *Poa pratensis*, on clay soil, 12 May 1961 (485) EGW; **on an old rotten oak

log lying prostrate and partly in the Bush River, 19 Jun 1961 (486) EGW] [**Talbot Co.:** ****Route 662, 0.6 mile from Route 50 & about 1 mile southwest of Wye Mills, on soil in a seepage swamp along a small stream in a woods of Sycamore, Tulip-tree and Swamp White Oak, 19 Feb 1966 (494) HR] [**Washington Co.:** ****Hagerstown, at the city park on Virginia Ave., on soil submerged in about a foot of water in a spring in the center to the park, 23 Dec 1968 (490) EGW].

Amblystegium serpens (Hedwig) Bruch, Schimper, & Gumbel [**Baltimore Co.:** ****Lone Hickory Farm, growing on a stick lying in mud under *Magnolia tripetala* near a spring in the upper swamp, 3 Oct 1965 (2318) EGW; **on soil under an Apple tree and Osage Orange tree, 13 Dec 1971 (2316) EGW] [**Harford Co.:** ****Edgewood Arsenal, on soil, 30 Aug 1967 (2315) EGW; **at the southwest corner of the airport runway, in a mesophytic woods of *Acer rubrum*, *Liquidambar styraciflua*, *Quercus falcata*, *Quercus phellos* and *Nyssa sylvatica*, 22 May 1980 (527) EGW] [**Howard Co.:** ****Woodbine Road, on rocky ledges along the south branch of the Patapsco River, 16 Jun 1962 (2319) EGW].

Amblystegium tenax (Hedwig) Jensen [**Allegany Co.:** ****Route 40, 1 mile east of Shipway's Motel, on soil in a woods, 10 Oct 1965 (168) EGW] [**Baltimore City:** ****Cylburn Wildflower and Garden Preserve, growing submerged in the goldfish pool, 4 May 1959 (157) HR; ****Worthington Ave., on a small branch (1½ inch in diameter) projecting 4 inches above the surface of a small woodland pool, growing with *Chiloscyphus* sp., 16 Aug 1959 (179) HR; ****Gwynns Falls Park, growing on the horizontal surface of a cement culvert at the edge of a macadam road in a mesophytic woods of Blue Beech, Red Oak, White Oak, Tulip-tree and Flowering Dogwood, 27 Sep 1959 (172) EGW; ****Wyman Park, opposite the Baltimore Museum of Art, in the cement crevices of a stone retaining wall running around the bottom of the park field, growing with *Barbula unguiculata* and *Tortula muralis*, 7 Apr 1973 (171) EGW] [**Baltimore Co.:** ****Upper Melinda, on a stone in a small brook, 13 May 1959 (161) EGW; ****Woodstock, on a rock with water dipping, 6 Aug 1959 (167) EGW; ****Caves Road, 35 yards from Park Heights Ave., on a cement wall of a small bridge over a rill, 10 Dec 1961 (160) EGW; ****Bond Ave. in Reisterstown, growing alone on a quartz rock in a small rill, 25 Feb 1962 (156) EGW; ****Timber Grove and Bond Ave., on a rock (6 inches in diameter) in the bed of a small rill in a woods, 2 Jun 1962 (178) EGW; ****G. P. Mahoney's corner woods near Bonita Ave., on a rock lying in mud in a Red Maple swamp, 17 Nov 1963 (176) HR; **on a small rock in a stream, moss not submerged but running

down to the water level on a rock, 5 Apr 1964 (164) HR; ****Kendig's Mill Road, in a woods along the Western Maryland Railroad, on a rock in a small stream, 12 Apr 1964 (162) HR; ****Park Heights Ave., in a woods on the bark of the roots of a Black Walnut, 24 Apr 1965 (175) EGW; ****Baltimore-Washington Expressway and Harbor Tunnel cutoff, on a small flat rock in a seepage area in a woods near the Patapsco River, under a Box Elder, 7 Aug 1965 (166) EGW; ****Soldiers' Delight, in a brook in a mesophytic frondose woods, 24 Feb 1968 (2881) EGW; ****Bonita Ave., on boulders in a stream running alongside a road in the woods, 4 Mar 1973 (182) EGW; ****Chattolane Hill Road off of Valley Road, growing on exposed rock surface in swiftly running water (Chattolane Springs) 2 Feb 1980 (2414) EGW] [**Carroll Co.:** ****Liberty Reservoir, on the vertical surface of a board abutment of a bridge across a small stream that runs into the reservoir, growing about 1 foot above the surface of the stream, 15 Jun 1959 (2882) EGW; ****Finksburg at Bob Farley's farm, on a rotting prostrate branch at the edge of a rill, near *Lycopodium clavatum*, 17 May 1961 (181) EGW] [**Harford Co.:** ****Big Gunpowder Falls, growing on a moist rock along the bank of a stream, 22 Aug 1967 (169) EGW] [**Garrett Co.:** ****Carey Run Sanctuary at Beall School Road, on a stone in a rill under hemlocks, growing with *Philonotis longiseta* and *Callicladium haldanianum*, 5 Oct 1963 (159) (170) (173) (174) (180) EGW] [**Worcester Co.:** ****Milburn Landing, on a rotting log in the Bald Cypress Swamp, 24 Jul 1965 (165) (177) EGW].

Amblystegium trichopodium (Schultz) Hartman [**Baltimore Co.:** ****Reisterstown Road and Bonita Ave., on the Wm. Groff property, on a flat rock surface flush with the lawn next to a building, 18 Jun 1959 (499) HR; ****Lone Hickory Farm, among tufts of *Panicum clandestinum* on shaded soil near the upper side of the corn crib embankment, 15 May 1961 (501) (2703) EGW; ****Paper Mill Road near Loch Raven Reservoir, on soil of schist ledges in a woods of Black Oak, Chestnut Oak, Beech, *Hydrangea arborescens* and Mt. Laurel, 13 Mar 1964 (500) HR] [**Howard Co.:** ****Glen Elg Country School, on a lawn among *Poa pratensis*, 4 May 1984 (2) EGW].

Amblystegium varium (Hedwig) Lindberg [**Baltimore Co.:** ****Upper Melinda, on rocks in a small rill (moss not submerged but in a moist position) 6 Sep 1959 (2292) HR; **on rocks in the bed of a small rill in a mesophytic woods, associated with *Brachythecium serrulatum*, 29 Jun 1963 (2294) EGW; ****Worthington Ave. near Bonita Ave., on soil in the bottom of a small limestone quarry, 6 Dec 1959 (2327) HR; ****Owings Mills, along a railroad cut of the Western Maryland Railroad, on a rock, 19 Apr 1964 (2293) EGW; ****Lone Hickory Farm, growing on a rotting knothole in an apple tree by the driveway,

about 2 feet above the ground, 4 Nov 1964 (2326) EGW; **on bare soil on the lawn under Redbud, associated with *Weissia controversa*, and Winter Aconite, 27 Apr 1968 (2296) EGW; ****Soldiers' Delight, along a small rill below a pipeline under Dolfield Road, on soil, 14 Mar 1965 (2325) EGW; ****Chrome Mine Road off of Berryman's Lane, on the horizontal surface of an oak stump, 22 May 1965 (2287) EGW; ****Bonita Ave. on the estate of G. P. Mahoney, along a road by an apple orchard on a white quartz boulder about 11 inches in diameter, 9 Mar 1969 (2295) EGW; ****Seminary Ave., on a stone wall growing with Purple Cliff Brake fern, 29 Apr 1972 (2329) EGW; ****Old Belfast Road about 150 yards east of Belfast Road, growing on the soil of a road bank with *Bryhnia novae-angliae* and *Mnium cuspidatum*, 19 Feb 1973 (2701) EGW] [**Carroll Co.:** ****Hughes Road in Finksburg, on soil in a bare spot among grass at the edge of the road, 12 Apr 1959 (2290) HR; ****Westminster at 92 West Main St., on a brick wall about 3 feet above the ground, 26 May 1959 (2615) EGW] [**Cecil Co.:** ****Elk Neck State Park at the picnic area, on the roots of a White Oak, 9 Jul 1965 (2324) EGW] [**Harford Co.:** ****Little Gunpowder Falls at Harford Road, on a decorticated rotting log lying partly in the river, 16 Nov 1964 (2322) (2289) EGW] [**Howard Co.:** ****Patapsco State Park, on mortar in a stone wall of an old house foundation, 6 Jul 1963 (2346) EGW] [**Prince George's Co.:** ****Kenilworth Aquatic Gardens, growing near the water level in one of the water lily pools, on bark at the base of a Button-bush, with some of the moss in water but most of it above, 20 Sep 1959 (2291) HR].

Calliergonella cuspidata (Hedwig) Loeske [**Frederick Co.:** ****Cunningham Falls State Park, 10 May 1958 (3274) EGW].

Campylium chrysophyllum (Bridel) J. Lange [**Baltimore Co.:** ****Soldiers' Delight, at the base of a Red Maple at ground level near the edge of a small stream, 15 Oct 1952 (2206) EGW; **on soil under *Pinus virginiana*, 14 Mar 1965 (2185) (2212) EGW; ****St. Thomas Church at Garrison Forest Road and St. Thomas Lane, on a bare spot in the lawn under a Basswood Tree, 18 May 1959 (2187) (2190) EGW; ****Lone Hickory Farm, on wood in a stream, 28 Apr 1961 (1986) EGW; ****Bonita Ave. in the corner woodland owned by G. P. Mahoney, at the base of a rotting stump in a Red Maple Swamp, 17 Nov 1963 (2193) HR; **on G. P. Mahoney's farm, on bare soil among weeds in an open field, growing with *Physcomitrium pyriforme* and *Funaria* sp., 5 Apr 1964 (2205) HR; ****Worthington Ave. near Glyndon, on a 4 inch diameter log lying in the water of a small pond, 8 May 1975 (2191) EGW] [**Garrett Co.:** ****Swallow Falls State Park, on rather bare soil along the roadside, growing with *Fissidens* sp. and *Pogonatum* sp., 28 Sep

1963 (2194) EGW; ****Carey Run Sanctuary, on a well rotted hemlock log, 5 Oct 1963 (2190) EGW] [**Harford Co.:** ****Route 40, ½ mile northeast of the Edgewood Road intersection, on an old rotting, decorticated log lying in a swamp, moss mostly above the waterline, associated with *Amblystegium varium*, 17 Jan 1961 (2200) EGW].

Campylium chrysophyllum var. *brevifolium* (Renauld & Cardot) Grout [**Baltimore Co.:** ****Timbergrove Road, about 100 yards from the Western Maryland Railroad track in an open field, on soil among grasses, *Solidago altissima* and other weeds, very abundant and often forming patches several feet in extent, 9 Feb 1973 (2188) EGW].

Campylium hispidulum (Bridel) Mitten [**Baltimore Co.:** ****Bonita Ave. and Worthington Ave. on the Foster estate, on a lawn next to a stone wall, 31 Dec 1972 (2218) EGW] [**Carroll Co.:** ****York Road #1, 100 yards west of Kern Road, on bare soil of a roadbank in a woods of *Acer rubrum*, *Quercus velutina*, Christmas Fern and Marginal Shield Fern, 22 Jun 1969 (2204) EGW] [**Howard Co.:** ****Patapsco State Park, on a rotting oak log (2 feet in diameter) in a mixed deciduous woods of White Oak, Black Oak, Black Gum and Flowering Dogwood, 20 Mar 1960 (2189) EGW].

Hygrohypnum eugyrium (Bruch, Schimper, & Gumbel) Loeske [**Garrett Co.:** ****Casselman Bridge State Park, on an emergent boulder in a picnic grove, 26 Sep 1964 (185) EGW].

Platylomella (Synonym: *Sciaromium*)

Platylomella lescurii (Sullivant in Gray) Andrews [**Baltimore Co.:** ****Deep Run on Ivy Hill Road, on a rock wet with spray in a stream, 3 Oct 1960 (1767) EGF; ****Upper Melinda, on small stones in a woodland brook, 20 Jun 1961 (1766) (1768) EGW; ****Greenspring Ave. on the Worthley property, on moist soil and sticks along a wooded stream below a falls, associated with *Pellia epiphylla*, *Thuidium delicatulum*, *Mnium affine* and *Mnium punctatum*, 4 Jul 1969 (1765) EGW].

62. BRACHYTHECIACEAE [Hypnales] *Brachythecium oxycladon* (Bridel) Jaeger & Sauerbeck [**Baltimore Co.:** ****Lone Hickory Farm, on soil of an open field above a holly tree, associated with *Amblystegium varium*, 4 Apr 1964 (2532) HR; ****Lone Hickory Farm, on soil in an open field above the swamp, 13 May 1968 (2767) EGW; ****Reisterstown at All Saints Church on Chatswoth Ave., on soil among lawn grasses, 7

Nov 1965 (2689) EGW] [**Frederick Co.:** ****Libertytown, on the farm of J. Grabenstein, on the soil on the bank of a small rill, 27 Dec 1959 (2768) EGW].

Brachythecium plumosum (Hedwig) Bruch, Schimper, & Gümbe] [**Baltimore Co.:** ****Bonita Ave., on a sloping boulder beside a small stream in a mixed deciduous woods of *Acer rubrum*, *Nyssa sylvatica* and *Quercus alba*, 31 Jan 1960 (3052) HR; ****Bank of Silver Run, 100 feet from where it runs into the Gunpowder River, on a thin layer of soil over a boulder in a stream, constantly wet by spray but not entirely immersed, 28 Apr 1962 (2653) EGW; ****Upper Melinda, on a mica schist ledge associated with *Dicranum scoparium* and *Bartramia pomiformis*, 20 Jan 1963 (2686) EGW; ****Liberty Reservoir, 25 Apr 1965 (2682) (2685) (2690) EGW] [**Carroll Co.:** ****Hughes Road at Beaver Run, on a large rock on a gently sloping surface about 1½ feet above the water level, 11 Jul 1959 (2677) EGW] [**Garrett Co.:** ****On a rock in a stream, Andrews Foray, 22-24 Sep 1989 (3359) Anna Felton].

Brachythecium rivulare Bruch, Schimper, & Gümbe] [**Baltimore Co.:** ****Patapsco State Park, on a rock surface of ledges in a trickle of water from a small rill along the "Nature Trail", 6 Jul 1963 (2680) EGW; ****Pretty Boy Reservoir at Frog Hollow near Parsonage Road, growing in the flush of a spring among grass on both the upper and lower sides of the road near the reservoir but on private property, 9 Mar 1973 (3053) (3086) (3087) (3091) (3102) EGW; ****Upper Melinda, near the driveway entrance to Arthur Bell, on rocks in a stream in a mesophytic woodland, moss covering wide areas from the water line up, 17 Mar 1973 (3088) (3090) EGW; ****Kendig's Mill, on soil of the old mill race of Kendig's Mill, 25 Mar 1973 (3054) (3089) EGW; ****Gwynnbrook Ave. along the road bordering the pond of the "State Game Farm", on soil in an open moist spot, 29 Mar 1975 (2694) EGW].

Brachythecium rutabulum (Hedwig) Bruch, Schimper, & Gümbe] [**Baltimore Co.:** ****Greenspring Ave., on soil in a swampy seepage area in a woods, 28 Feb 1965 (2687) EGW].

Brachythecium salebrosum (Weber & Mohr) Bruch, Schimper, & Gümbe] [**Baltimore Co.:** ****Upper Melinda, on a boulder in a stream (Councilman's Run) below the bridge at the entrance to Arthur Bell's estate, 2 Mar 1968 (3055) EGW].

Bryhnia graminicolor (Bridel) Grout [**Baltimore Co.:** ****Upper Melinda, on soil at the top edge of a Wissahickon schist ledge, on a roadside bank almost opposite the entrance of the Forster's estate, 31 Dec 1983 (3092) EGW] [**Carroll Co.:** ****Liberty Reservoir north of Oakland Road, on rock of an old foundation, 5 Jan 1966 (983) EGW].

Bryhnia novae-angliae (Sullivant & Lesquereux *ex* Sullivant) Grout [**Baltimore Co.:** ****Lone Hickory Farm, on the prostrate roots of Red Maple, 30 Apr 1959 (1754) EGW; **on soil on a bank of a small rill near the bass pond, growing among grass, 23 Apr 1961 (1753) EGW; **on the bank of a brook near the bass pond, 1 May 1965 (1744) EGW; **on soil and a piece of rock under the overflow pipe at the upper spring, 25 May 1969 (1740) EGW; ****Timber Grove Road and Bond Ave., on wet soil at the edge of a small rill in a woods of Chestnut Oak, Flowering Dogwood and Spicebush, 2 Jun 1962 (1750) EGW; ****Bonita Ave., on the bark of a stick lying in swampy ground in a Red Maple woods about 300 yards north of the Hunter-Wilson Distillery, 16 Nov 1963 (1738) HR; ****G. P. Mahoney's corner woods near Bonita Ave., on swampy soil under a Spicebush, 17 Nov 1963 (1749) HR; ****Northwest of Kendig's Mill Road in a woods along the Western Maryland Railroad, on a thin layer of silty soil on a boulder in a stream, 12 Apr 1964 (1751) (1752) (2520) HR; ****Upper Melinda, on rock ledges on the west side of a road near a small stream 100 feet away, associated with *Leskea gracilescens*, 16 Aug 1964 (1742) HR; ****Greenspring Ave., at the base of a White Oak (13 inch DBH) in an oak, Black Gum and Red Maple woods, 28 Feb 1965 (1739) EGW; ****Liberty Reservoir, with *Brachythecium plumosum*, 25 Apr 1965 (1757) EGW; ****Academy Ave. and Kendig's Mill Road, among grass at the edge of the road on L. Hooper's property, 28 Jan 1970 (1745) EGW; ****Pretty Boy Reservoir, on a hillside past the dam, Aug 1970 (1743) EGW; ****Old Belfast Road about 150 yards east of Belfast Road, on soil of a roadside embankment, 19 Nov 1973 (1741) EGW] [**Frederick Co.:** ****Cunningham Falls State Park, on thin soil on small boulders in a nearly dry rill in a woods of Canada Hemlock, Hop Hornbeam and Black Birch, 30 Jul 1961 (1747) EGW; ****Catoctin Park at Huntley Creek, on damp soil of a hemlock lined stream bank, 19 Oct 1965 (984) EGF] [**Garrett Co.:** ****Carey Run Sanctuary, on soil under *Tsuga canadensis*, 5 Oct 1963 (1756) EGW; ****Carey Run Sanctuary, on moist soil near a brook in an open field with scattered trees, 9 Oct 1964 (1746) EGW] [**Harford Co.:** ****Rocky Run near the Susquehanna River, Feb 1960 (1755) EGF] [**Prince George's Co.:** ****Beltsville Agricultural Research Center, 100 yards east of the police substation, on soil of a rill bank in a Coastal Plain seepage swamp woods of Red Gum, Red Maple and *Clethra alnifolia*, 8 Feb 1965 (1748) HR].

Bryoandersonia illecebra (Hedwig) Robinson [**Baltimore City:** ****Northeast Baltimore City, on shady soil, 10 Mar 1966 (1002) EGW] [**Baltimore Co.:** ****Dolfield Road, on ledges of mica schist near the road, 27 Jul 1959 (2522) EGW; ****Lake Roland at Robert E. Lee Memorial Park, on soil on ledges under American Beech, Black Locust and Black Oak, associated with *Leucobryum glaucum* and *Pellia epiphylla*, 3 Nov 1963 (1736) EGW; ****Gwynnbrook Ave., on soil of a road cut through a woods of Black Oak, White Oak and Tulip-trees, 7 Nov 1963 (3095) EGW; ****Soldiers' Delight, on a pocket of soil on a boulder along the stream where the Fringed Gentian grows, partly shaded by Blackjack Oak and Virginia Pine, 25 Sep 1965 (1735) EGW; ****Liberty Reservoir off of Ward's Chapel Road, growing in a lawn amongst grass alongside a parking lot, the area more or less shaded by White Pines and adjacent woods, 3 Nov 1984 (1) EGW] [**Harford Co.:** ****Greene's Road on the way to Norrisville, on "Castle Rock" beside Deer Creek, 9 Jul 1959 (2683) EGW; ****Susquehanna State Park, Rock Run Road along the Susquehanna River, on rocks on a steep wooded hillside, growing with *Brachythecium* spp., *Cirriphyllum piliferum* and *Mnium cuspidatum*, 17 Apr 1982 (88) EGW; ****Atkisson Reservoir, in a mesophytic woods between Atkisson Road and the reservoir, on soil along a small rill running down to the reservoir, 2 Mar 1984 (2530) EGW] [**Montgomery Co.:** ****Great Falls National Park, on soil in a woods between the canal and the Potomac River, growing intermixed with *Dicranum scoparium*, 10 Feb 1984 (2418) (2420) EGW] [**Washington Co.:** ****100 yards from the Potomac River, on soil shaded by a woods, 19 Jul 1959 (3094) EGW].

Eurhynchium hians (Hedwig) Sande-Lacoste [**Baltimore Co.:** ****Paper Mill Road at 0.8 mile east of the Loch Raven Bridge, on soil intermingled with *Eurhynchium serrulatum* and *Mnium cuspidatum*, 29 Feb 1960 (2779) (2783) (2784) HSC; ****Owings Mills, on a soil embankment along a railroad ditch, among grasses, 20 May 1962 (2785) EGW] [**Harford Co.:** ****Mountain Road, on rotting wood (stick of Red Maple, 3¼ inches in diameter, lying on the ground) in a moist shady spot under Red Maples and Silky Dogwoods in a seepage swamp, 15 Feb 1960 (2781) EGW].

Eurhynchium pulchellum (Hedwig) Jennings [**Baltimore Co.:** ****Kendig's Mill Road, on soil on a roadbank, in an oak and hickory woods, associated with *Fissidens osmundioides*, *Physcomitrium pyriforme* and *Aulacomnium heterostichum*, 25 Jul 1959 (2786) HR; ****Dover Road, 1 mile from Greenspring Valley Road, on the base of a

White Ash (9 inches DBH) on bark from partly on the ground up the trunk 8 inches, 6 Feb 1963 (2787) EGW].

Eurhynchium riparioides (Hedwig) Richard [**Baltimore Co.:** ****Gunpowder Road about 1 mile above Pretty Boy Reservoir, on ledges on the bank of Silver Run, 28 Apr 1962 (2796) EGW; ****Patapsco State Park, on the rock surface of a ledge in a trickle of water from a small rill along the "Nature Trail", associated with *Conocephalum conium* and *Pellaea epiphylla*, 6 Jul 1963 (2793) EGW; ****Dover Road at D. Brewster's estate, on a thin layer of soil on boulders, only partly underwater, 6 Jul 1964 (2794) EGW; ****Greenspring Ave., on about 2 inches of soil on ledges beside a small falls in an oak, Red Maple and Black Gum woods, 28 Feb 1965 (2789) EGW; ****Liberty Reservoir, 25 Apr 1965 (2790) EGW; ****Chattolane Hill Road off of Valley Road, at Chattolane Springs, water plants growing in a cement basin of a former spring house in an open sunlit area, 2 Feb 1980 (2892) EGW] [**Carroll Co.:** ****Hughes Road at Beaver Run, caught on tree roots in a shallow portion of a stream, evidently snagged on the roots when the water was higher, 11 Jul 1959 (2792) EGW] [**Frederick Co.:** ****Cunningham Falls State Park, on small boulders in a small stream with most of the moss out of the water, 30 Jul 1961 (2791) EGW] [**Garrett Co.:** ****On rocks in a stream, Andrews Foray, 22-23 Sep 1989 (3360) Anna Felton].

Stereocleus (Synonym: *Rhynchostegium*)

Stereocleus serrulatum (Hedwig) Robinson [**Allegheny Co.:** ****Town Hill Mountain, elevation of 1595 feet, on soil along a road cut, 29 Sep 1963 (3146) EGW; ****Route 40, about 1 mile east of Shipway's Motel, on the base of an oak in a woods, 10 Oct 1965 (3062) EGW] [**Baltimore Co.:** ****Soldiers' Delight, in a small pine grove on the serpentine barrens, 5 Sep 1955 (3332) EGW; **on soil on the bank of a rill in the serpentine barrens, associated with *Philonotis fontana*, 15 Aug 1964 (3056) HR; ****Kendig's Mill Road, on a shady bank in a mesophytic woods along a dirt road, growing with *Physcomitrium pyriforme* and *Mnium stellare*, 25 Jul 1959 (2805) EGW; ****Cockeys Mill Road, on soil that was rich and full of humus from rotting leaves, associated with *Halesia tetraptera*, *Ailanthus altissima* and *Lonicera japonica*, 4 Dec 1960 (2800) HR; ****Lone Hickory Farm, on soil in a garden, 24 Apr 1961 (2754) EGW; **on a concrete wall by the upper spring, 1 Oct 1961 (2753) EGW; **on a switch road near the corner woods on Bonita Ave., on soil under White Oak and Black Cherry, 21 Feb 1965 (3061) EGW; **on soil at the edge of a woods along a county road, 22 Sep 1973 (2891) EGW; ****Route 40, ½ mile south of the Gunpowder River, on soil under a Spicebush, 25

Apr 1962 (2809) EGW; **about ¼ mile south of the Gunpowder River, on soil in the woods by the picnic area, 17 Dec 1965 (3148) HR; **about 1/3 mile south of the Gunpowder River, near a picnic table on a decorticated *Salix nigra* log in a seepage swamp, 20 Jan 1966 (2802) EGW; ****Academy Lane on B. Poe's property in Owings Mills, on rather moist soil among grasses, 26 May 1962 (2808) EGW; ****Upper Melinda, on soil in a woods at the top of a hill, 26 Aug 1962 (2798) EGW; ****Goucher College in Towson, on the bark of a fallen oak log in a woods of White Oak, Chestnut Oak and Mockernut Hickory, 21 Mar 1963 (2799) EGW; ****Patterson Road, 1/3 mile from Sweet Air Road, near a woods road leading to the home of Dr. Hartline, on soil in a woods, 9 Dec 1966 (2801) EGW; ****Painter's Mill Road, on the game refuge of McDonogh School, on soil in a woods, 3 Feb 1968 (1914) EGW; ****Bonita Ave. by the bridge over Gwynns Falls, on soil in a Red Maple, Swamp White Oak, Box Elder woods, 18 Feb 1968 (1917) (1918) (1920) (1921) EGW; **in back of the Hunter-Wilson Distillery, on soil under shrubs on the side of a railroad embankment, growing intermixed with *Atrichum* sp., 18 Feb 1968 (1919) EGW; **in back of the Hunter-Wilson Distillery, on soil under Staghorn Sumac and *Alnus serrulata* along an embankment of the Western Maryland Railroad, 18 Feb 1968 (1923) EGW; **about 40 feet from the intersection with Gwynnbrook Ave., on soil on top of a small hummock in a swamp, only slightly shaded by a small *Acer rubrum* (3 inches DBH) 14 Mar 1984 (3149) EGW; ****Park Heights Ave. on the side of the driveway of H. Pumpian, on bare places in the lawn, 8 Apr 1968 (1922) (1925) EGW; ****Greenspring Ave., in E. R. Wilken's woods, on soil in an oak-beech woods, 16 Mar 1966 (3064) HR; ****Garrison Forest Road and St. Thomas Lane, on soil at St. Thomas Episcopal Church, 9 Jan 1977 (1924) EGW] [**Carroll Co.:** ****Kay's Mill Road, common on soil in a White Oak mesophytic woodland, 26 Feb 1961 (2807) EGW] [**Cecil Co.:** ****Elk Neck State Park, on a rock wall at the picnic area, 8 Jul 1965 (3063) HR] [**Frederick Co.:** ****Cunningham Falls State Park, on a brick left in a beech, hickory, oak, elm and hemlock woods, 14 Jun 1959 (3058) EGW] [**Garrett Co.:** ****Swallow Falls State Park, on bare soil along the road, associated with *Pogonatum* sp., 28 Sep 1963 (3057) EGW; **on the bark of a White Oak from ground to a height of 4 inches up the trunk, associated with *Anomodon* sp., 28 Sep 1963 (3065) HR] [**Harford Co.:** ****Mountain Road about 1 mile south of Belair Road, on very decayed wood and humus on low swampy ground of a seepage plain under *Cornus ammomum* and *Acer rubrum*, 2 Feb 1960 (1915) (3066) HR; **about 1 mile south of Belair Road, on a rotting stick about ¾ inch in diameter lying on the ground in a seepage swamp under Red Maples and Silky Dogwood, 15 Feb 1960 (2806) EGW; ****U.S. Army Chemical Center, on moist and partially shaded soil under a wooden water tank, associated with *Leptodictyum*

riparium, *Festuca elatior*, *Plantago virginiana*, *Lolium perenne* and *Veronica agrestis*, 4 May 1961 (2810) EGW; ****Edgewood at Willoughby Beach Road 0.4 mile southeast of Frey's Road, on soil in a woods, 7 Dec 1967 (2795) EGW] [**Prince George's Co.:** ****Beltsville Agricultural Research Center, 100 yards east of the police substation, on soil in a Red Gum and Red Maple seepage swamp of the Coastal Plain, 8 Feb 1965 (3147) HR] [**Somerset Co.:** ****Irish Grove Sanctuary, on soil, 12 Apr 1970 (2560) EGW] [**Talbot Co.:** ****Route 662, about 0.6 mile from Route 50 & about 1 mile southwest of Wye Mills, on soil in a seepage swamp along a small stream in a woods of Sycamore, Tulip-tree and Swamp White Oak, 19 Feb 1966 (3060) HR] [**Washington Co.:** ****5 miles west of Hancock and 1 mile south of Route 40, on soil at the edge of a wooded road, 19 Jul 1959 (3145) EGW].

64. HYPNACEAE [Hypnales] *Callicladium haldanianum* (Greville) Crum [**Baltimore Co.:** ****Upper Melinda on Bonita Ave., on a 10 inch rotting prostrate log about 15 feet from a small stream and 100 feet north of a small bridge, in a mixed deciduous woods of White Oak, Sour Gum and Red Maple, 1 Feb 1960 (116) (118) EGW; ****Hollofield Road, on a 1 inch layer of soil on ledges in a Chestnut Oak, Black Oak, White Oak and Mockernut Hickory woods, 29 Sep 1962 (120) H. Crum; ****Soldiers' Delight, on a decorticated rotting Chestnut Oak log, 22 Nov 1962 (2883) EGW; ****Towson at Goucher College, on soil near a small stream about 2 feet from the water, in a mesophytic woods of White Oak, Hickory, etc., 21 Mar 1963 (92) HR; ****Reisterstown at All Saints Church on Chatsworth Ave., 7 Nov 1965 (3104) EGW; ****Route 40 about ¼ mile southwest of the Harford County Line and the Gunpowder River, on moist soil in the flood plain woods of the Gunpowder River near a picnic area, 17 Dec 1965 (121) EGW] [**Garrett Co.:** ****Carey Run Sanctuary, on a rotting log in a hemlock woods, 5 Oct 1963 (112) (117) (122) EGW] [**Harford Co.:** ****Edgewood Arsenal, in a woods off Otto Road at the end of the airfield, on bare soil of a throwdown tree in a woods of *Populus grandidentata*, *Acer rubrum*, *Robinia pseudoacacia* and *Ilex opaca*, 12 Feb 1973(113) (114) (119) (123) EGW].

Ctenidium molluscum (Hedwig) Mitten [**Baltimore Co.:** ****Loch Raven Road about 0.2 mile north of Cromwell Bridge Road, on a steep bank along a road between the small and large dams, growing on soil among grasses, *Bryoandersonia*, *Climacium* and *Thuidium delicatulum*, 28 Feb 1973 (2184) EGW].

Herzogiella striatella (Bridel) Iwatsuki [**Garrett Co.:** ****Swallow Falls State Park, on soil on boulders under *Tsuga canadensis*, 28 Sep 1963 (2361) HR].

Herzogiella turfacea (Lindberg) Iwatsuki [**Worcester Co.:** ****Milburn Landing State Park, on sandy soil at the base of a White Oak in the camp area, 27 Apr 1973 (1763) (1792) EGW].

Homomallium adnatum (Hedwig) Brotherus [**Baltimore Co.:** ****Painter's Mill Road in the woods of the game refuge of McDonogh School, at the base of *Quercus alba*, mixed with *Platygyrium repens*, 3 Feb 1968 (2884) EGW] [**Carroll Co.:** ****Tracey's Mill Road, on the base of a White Oak in a deciduous forest, 5 Dec 1962 (152) EGF] [**Harford Co.:** ****Rock Run Sanctuary at Susquehanna State Park, on rocks under *Juglans nigra* on a hillside along the upper part of the main road by the sanctuary, growing with *Fissidens bryoides*, 25 May 1974 (153) EGW].

Hypnum cupressiforme (Hedwig) Brotherus [**Harford Co.:** ****Edgewood Arsenal, forming large mats often several feet square on humus and sandy loam in a White Oak woods, 4 Apr 1958 (3269) EGW].

Hypnum curvifolium Hedwig [**Baltimore Co.:** ****Upper Melinda, in a Tulip-tree woods, on rock ledges with ½ inch to no soil on them, 8 Oct 1959 (59) EGW; ****Dover Road at D. Brewster's estate, in a woods of White Oak, Black Oak and Chestnut Oak, on a bank at the edge of the trail above the falls, mixed with *Thuidium delicatulum*, 6 Jul 1964 (69) HR; ****Upper Melinda, in a Tulip-tree woods, on a rock ledge with ½ inch to no soil under the moss, 8 Oct 1964 (77) HR] [**Frederick Co.:** ****Cunningham Falls State Park, on soil among the roots of trees (Black Birch, Beech and Canada Hemlock) along the bank of a small stream, 30 Jul 1961 (82) EGW] [**Harford Co.:** ****Laurel Brook Road in Fallston, on the Old bed of the Ma & Pa Railroad, on a rotten log in the railroad bed, 22 Mar 1966 (58) HR] [**Worcester Co.:** ****Md./U.S. Route 113 about 2 miles southwest of Shad Landing and 1 mile north of Route 756, on sticks on the ground in a wooded Red Maple and Swampbay Magnolia swamp, 20 Feb 1966 (60) HR].

Hypnum fertile Sendtner [**Baltimore Co.:** ****Dolfield Road, on ledges of mica schist near the road, 27 Jul 1959 (74) HR] [**Garrett Co.:** ****Swallow Falls State Park, on soil under *Quercus alba*, *Tsuga canadensis* and *Viburnum acerifolium*, 28 Sep 1963 (97) (3369) EGW] [**Harford Co.:** ****U.S. Army Chemical Center, on soil under Red Gum,

Red Maple and Sour Gum in a shady spot, 17 Sep 1959 (70) HR; ****Rock Run Road near Level, in a mesophytic woods of White Oak-hickory, on a fallen White Oak log (about 3½ feet in diameter and somewhat rotten) 20 Nov 1960 (85) EGW].

Hypnum imponens Hedwig [**Allegany Co.:** ****Green Ridge State Forest at Fifteen Mile Creek Campground, 3-4 May 1975 (91) (3074) (3075) EGW] [**Baltimore Co.:** ****Bonita Ave. in Owings Mills, on a rocky ledge along the road, 13 May 1959 (66) (67) (72) EGW; **at the woods road near the distillery, on swamp soil at the base of a Red Maple, associated with *Sphagnum imbricatum*, 24 Sep 1964 (83) HR; ****Upper Melinda, on ledges beside the road in a mesophytic woods of oak, hickory and beech, growing with *Pohlia nutans*, 7 Jun 1959 (61) EGW; **on a mica schist ledge along the road in a woods of White Oak, Mockernut Hickory and Red Maple, associated with *Bartramia pomiformis* and *Dicranum scoparium*, 20 Jan 1963 (3072) EGW; ****Gunpowder Road, along the bank of Silver Run about 1 mile above Pretty Boy Reservoir, on soil (rotting leaf mold on an old rotten nearly disappeared log) in a hickory, oak, hemlock woods, 28 Apr 1962 (63) EGW; ****Kendig's Mill Road, on the rotting bark and wood of an old oak stump, 11 Oct 1963 (56) EGW] [**Cecil Co.:** ****U.S. Route 40 (east side) 4½ miles north of the Susquehanna Bridge, on soil in an open area at the edge of a woods of White Oak, Chestnut Oak and *Vaccinium corymbosum*, 7 Dec 1962 (75) EGW] [**Frederick Co.:** ****Catoctin National Park, on the site of a former campfire, 28 Jan 1973 (65) EGW] [**Garrett Co.:** ****Swallow Falls State Park, on soil under *Quercus alba*, *Tsuga canadensis* and *Amelanchier canadensis*, 28 Sep 1963 (79) EGW; ****Carey Run Sanctuary on Beall School Road, on the bark of a rotting hemlock log, 5 Oct 1963 (62) (81) EGW; **on a rotting log, 5 Oct 1963 (3067) EGW; **on soil on the bank of a rill under a hemlock, 5 Oct 1963 (3070) EGW; **on soil (including duff) under a hemlock on the bank of a rill, 5 Oct 1963 (3071) EGW; **on moist soil near a brook in an open field with scattered trees, 9 Oct 1964 (68) (78) EGW; **on moist soil near a brook in an open field with scattered Canada Hemlock, Red Maple and Sugar Maple trees, 9 Oct 1964 (3073) EGW] [**Harford Co.:** ****U.S. Army Chemical Center, on soil in a Chestnut Oak, Willow Oak and Red Maple woods, 29 Oct 1959 (76) EGW; ****Edgewood at Trimble Road, 14 Dec 1965 (55) HR] [**Worcester Co.:** ****Milburn Landing State Park, on humus and roots of *Taxodium distichum*, 24 & 25 Jul 1965 (57) (3069) EGW].

Hypnum lindbergii Mitten [**Baltimore Co.:** ****Greenspring Ave., 4 miles from Glyndon in a wet meadow among grass, 13 Aug 1957 (3265) EGW; ****Lone Hickory Farm, on moist muddy soil at the edge of the bass pond, 27 Oct 1963 (3078) HR; **on wet

soil at the edge of the bass pond covering large areas of many square feet with large mats either pure or mingled among grasses and sedges, 4 Apr 1964 (3077) HR; **on soil among grasses, sedges and *Helodium paludosum* at the edge of the bass pond, 6 Sep 1967 (3076) EGW; ****Greenspring Ave. at Foster's Pond, on a dried mud bank left by the pond drying up, among Clotbur, grasses and sedges, and associated with *Astomum muhlenbergianum* and *Ditrichum pallidum*, 9 Jan 1966 (2448) (3079) HR] [**Carroll Co.:** ****Near Westminster Pike, on the vertical face of boards on a bridge abutment about 1 foot above the surface of a stream that runs into Liberty Dam, 13 Jan 1959 (3024) HR; ****Hughes Road at Beaver Run, on bare soil of the stream bank, 11 Jul 1959 (2437) EGW] [**Garrett Co.:** ****Carey Run Sanctuary on Beall School Road, on rocks in a small rill, 5 Oct 1963 (2439) EGW; ****Casselman Bridge State Park, 2 miles west of Grantsville, on soil in an oak grove near a picnic table, 26 Sep 1964 (73) EGW] [**Harford Co.:** ****Little Gunpowder Falls near Harford Road, on a decorticated rotting log at the edge of the river and partly in the water; 16 Nov 1964 (1807) EGW; ****U.S. Army Chemical Center at Skipper's Point Road, on soil in a woods, 5 Dec 1967 (3267) EGW].

Hypnum pallescens (Hedwig) Palisot de Beauvois [**Baltimore Co.:** ****Greenbaum estate about 30 yards from Reisterstown Road, at the edge of a private drive, on soil under *Cornus florida* and partly on the base of a rotting hemlock stump, 14 Mar 1964 (2675) (3080) EGW; ****Oregon Ridge, Beaver Dam Road about ½ mile from Shawan Road, on a decorticated rotting juniper log in woods of Black Oak, Scarlet Oak, White Oak, Black Ash and Sour Gum, 11 Dec 1966 (3082) EGW] [**Garrett Co.:** ****Casselman Bridge State Park, 2 miles west of Grantsville, on a boulder in the picnic area, associated with *Hedwigia ciliata*, 26 Sep 1964 (3081) EGW; **23 Sep 1989 (2860) EGW] [**Harford Co.:** ****Edgewood Arsenal at Skipper's Point, on a rotting log in a mesophytic frondose woods with *Hypnum imponens*, 18 Sep 1967 (2907) EGW].

Isopterygium elegans (Bridel) Lindberg [**Baltimore Co.:** ****Greenspring Ave. on the Worthley's property, on a thin layer of soil on Wissahickon schist ledges with *Pellia epiphylla* and *Calypogeia trichomanis*, 4 Jul 1969 (2413) EGW] [**Garrett Co.:** ****23 Sep 1989 (2862) EGW] [**Harford Co.:** ****Greene's Road, on the ledges of "Castle Rock" beside Deer Creek on the Jolly Acres Camp of the Lutheran Inner Missions, Inc., 9 Jul 1959 (2365) (2412) HR].

Isopterygium tenerum (Swartz) Mitten [**Baltimore Co.:** ****Mahoney's corner woods on Bonita Ave., growing on a very rotted log in a Red Maple, Tulip-tree and Pin Oak damp

woods, 27 Jun 1966 (2368) HR; ****Gwynnbrook Ave. in Frank Price's woods, on very rotted wood in swampy soil surrounded by Red Maple and Tulip-trees, 10 Feb 1963 (2367) HR; **on a rotting log in a swampy woods, associated with *Leucobryum glacucm*, 31 Oct 1965 (2363) EGW] [**Carroll Co.:** ****Kay's Mill Road on the Farley Farm, on clay of a high stream bank with many other bryophytes, associated with *Blepharostoma trichophyllum*, *Scapania nemerosa* and *Hypnum imponens*, 28 Jan 1973 (2362) R.S. Farley III] [**Prince George's Co.:** ****Beltsville Agricultural Research Center, 100 yards east of the Police Substation, on the bark at the base of a Red Gum from the ground up about 1 foot, associated with *Plagiothecium micans*, 8 Feb 1965 (2359) EGW] [**Worcester Co.:** ****Milburn Landing State Park, on sandy loam under an open stand of *Pinus taeda*, 24 Jul 1965 (2364) EGW].

Platygyrium repens (Bridel) Bruch, Schimper & GümbeI [**Baltimore Co.:** ****Lone Hickory Farm on Bonita Ave., on a rotting horizontal knothole on *Cornus florida*, about 4 inches above the ground in an oak-hickory woods, 26 Dec 1959 (2440) EGW; **on a very rotten log 16 inches in diameter, in the upper spring woods, 30 Aug 1959 (624) EGW; **on the bark of a fallen and slightly rotted 8 inch diameter trunk of Sassafras, in the upper spring woods, 30 Aug 1959 (3151) EGW; **growing on a Norway Maple, 6 Feb 1972 (1883) EGW; ****Frank Price's woods on Bonita Ave., on the bark of a stump 3 feet in diameter, about 1½ feet above the ground, 15 Nov 1959 (1937) EGW; **on the bark of a rotting Black Oak log 2 feet in diameter, 10 Feb 1962 (2482) EGW, ****Padonia Road, northside, 23 Jan 1960 (614) EGF; ****Timber Grove Road and Bond Ave., on the bark of a Flowering Dogwood (8 inches DBH), about 4-6 feet above the ground, 30 May 1962 (616) EGW; ****Kendig's Mill Road, on bark at the base of a *Quercus velutina*, 11 Oct 1963 (1886) HR; ****G. P. Mahoney's corner woods near Bonita Ave., on the bark of a Red Maple, 5 feet above the ground, 13 inches DBH, 17 Nov 1963 (618) HR; ****Washington Expressway and the cut off to the Harbor tunnel, about 200 yards from the Patapsco River, on a decorticated rotting log in a seepage plain woods of Silver Maple and Box Elder, 7 Nov 1964 (2488) EGW; ****Greenspring Ave. in the woods of E. R. Wilkins, on rotting planks over a stream, 28 Feb 1965 (2489) EGW; ****Owings Mills, on the bark of fallen White Ash log, 10 Apr 1965 (2491) EGW; ****Soldiers' Delight, on a rock outcrop in an oak-hickory-Red Maple woods on a hillside overlooking the stream where *Gentiana crinita* grows, 1 Oct 1965 (2878) EGW; **on soil near the deep mine opening by the lumber company, in a mesophytic frondose woods of Large Toothed Aspen, White Oak, Black Oak, Virginia Pine, Pinksterbloom Azalea and Tupelo, 30 Dec 1967 (1884) EGW; ****Hillside Road, ½ mile from Falls Road, in a frondose woods, 12

Mar 1966 (2435) EGW; ****Upper Melinda on Bonita Ave., on a Wissahickon schist ledge beside the road near the entrance to Arthur Bell's estate, 3 Mar 1968 (3127) EGW; ****Loch Raven Reservoir at Dulaney Valley Road across from Stella Maris, on the bark of a White Oak, 10 Mar 1968 (1880) EGW; ****Park Heights Ave., along a stream in a deciduous woods where Marsh Marigold grows, on bark at the base of a White Ash (5 inches DBH) from ground level up the trunk for 10 inches, 29 May 1968 (623) EGW; ****Greenspring Ave. on the Worthley estate, on a Wissahickon schist ledge in a woods with *Leucobryum glaucum*, and *Polytrichum ohioensis*, 16 Feb 1969 (620) EGW] [**Carroll Co.:** ****Hughes Road, on a fallen (4 foot diameter) rotting Chestnut log about ½ rotted away but much of the wood still firm and tough, 14 Nov 1959 (617) (619) EGW; ****Westminster Pike at the Finksburg Methodist Church, on the bark of a Norway Maple (DBH 3 feet) about 5 feet above the ground, 30 May 1961 (1938) HR] [**Garrett Co.:** ****Carey Run Sanctuary, on a rotting log under Red Oak, 10 Oct 1964 (1882) EGW] [**Harford Co.:** ****U.S. Army Chemical Center, on the bark of a fallen trunk (2 foot diameter) of *Quercus* sp., in a mesophytic woods of White Oak, Sour Gum, Willow Oak and Red Gum, 19 Jun 1961 (622) EGW; ****Edgewood, along the Bush River, on the bark of a prostrate trunk of a fallen Black Oak (2½ feet DBH) 16 Apr 1962 (615) (621) EGW; **near the Bush River, on bark at the base (ground level up 5 inches) of a 10 inch White Oak in a mesophytic woods, 28 Mar 1962 (2449) EGW; **at Skipper's Point, in a woods on the bark of a rotting log (with profuse gemmae) 11 Aug 1967 (2472) EGW; ****Trimble Road, about 100 yards south of Denbytown Road, at the base of a Black Oak, 26 Jun 1967 (2464) EGW; ****Route 40 about 100 yards northeast of the overpass at Edgewood, near the edge of the tributary of Lauderick Creek off Bush River, on bark, 11 Oct 1967 (1941) EGW; ****Edgewood at Willoughby Beach Road, 0.4 mile southeast of Frey's Road, in a woods of Red Maple, White Oak, Red Gum, Sour Gum, Virginia Pine, Willow Oak and Black Oak, 7 Dec 1967 (1936) EGW] [**Howard Co.:** ****Sharp Road and Dorsey Mill Road, on the bark of a decorticated log in an oak-hickory woods, 20 Jun 1964 (1940) EGW, **on the bark of a Shingle Oak (1½ feet DBH) from ground level up the trunk to 2 feet, 20 Jun 1964 (1939) (2486) EGW] [**Prince George's Co.:** ****Beltsville Agricultural Research Center, 100 yard east of the Police Substation, on a decorticated log of *Quercus palustris*, 8 Feb 1965 (2480) HR] [**Talbot Co.:** ****Md. Route 662, about 0.6 mile from Route 50 and about 1 mile southwest of Wye Mills, at the base of a large Sycamore (3 feet DBH) in a seepage swamp, 19 Feb 1966 (2473) HR] [**Worcester Co.:** ****West Ocean City in a woods in back of Wyatt Cabins, on the bark of a rotting Loblolly Pine log, 10 May 1964 (2481) HR; ****Pocomoke Swamp near Whaleysville, on the bark of *Acer rubrum*, 6 feet up the trunk, 9 May 1965 (3128) EGW;

****U.S./Md. Route 113 about 2 miles southwest of Shad Landing and 1 mile north of Route 756, on the bark at the base of a Bald Cypress, associated with *Thelia hirtella*, *Thuidium delicatulum*, *Lophocolea heterophylla* and *Platygyrium repens*, 20 Feb 1966 (1885) EGW].

Taxiphyllum deplanatum (Bruch & Schimper ex Sullivan) Fleischer [**Frederick Co.:** ****Cunningham Falls State Park, on a light covering of soil on a large boulder along the power line, associated with Walking Fern, 30 Jul 1961 (2137) EGW] [**Prince George's Co.:** ****Suitland Bog in Suitland, at a very damp tree base, 16 Mar 1959 (2135) EGW]

Taxiphyllum taxirameum (Mitten) Fleischer [**Baltimore Co.:** ****Loch Raven Road about 0.3 mile from Cromwell Bridge Road, on a rock (4½ inches in diameter and about 3/8 inch thick) on soil in a woods of Red Maple, White Oak, *Carpinus caroliniana* and *Bryoandersonia illecebra*, 5 Apr 1975 (2138) EGW].

65. RHYTIDIACEAE [Hypnales] *Rhytidium rugosum* (Hedwig) Kindberg [**Baltimore Co.:** ****"Valley Nursery" on Valley Road, in flower pots sold by the nursery, 15 Jun 1961 (2702) EGW].

66. HYLOCOMIACEAE [Hypnales] *Pleurozium schreberi* (Bridel) Mitten [**Allegany Co.:** ****Near Route 40 about 1 mile east of Shipway's Motel, on a rocky ledge in a woods, 10 Oct 1965 (2443) EGW] [**Baltimore Co.:** ****Soldiers' Delight, Ward's Chapel Road at Laurel Brook, on a bank in a woodland, 29 Sep 1965 (986) EGF; **on a rock along the edge of the woods near a small rill where the Fringed Gentians grow, growing with *Thuidium delicatulum*, *Dicranum scoparium* and *Hedwigia ciliata*, 9 Oct 1971 (2462) EGW; **Ward's Chapel Road, on soil in a woods near Chimney Branch, growing with *Cladonia subtenuis*, 7 Jan 1973 (1881) R. S. Farley] [**Garrett Co.:** ****Swallow Falls State Park, on soil under Canada Hemlock, White Oak and Oblongleaf Shadblow, associated with *Polytrichum* sp. and *Dicranum* sp., 28 Sep 1963 (2197) EGW].

Rhytidiadelphus triquetrus (Hedwig) Warnstorff [**Baltimore Co.:** ****Loch Raven Reservoir near "Little Dam", in grass at the base of a slope, 21 Sep 1971 (1930) EGW; ****Loch Raven Drive about 0.3 mile north of Cromwell Bridge Road, on a grassy, steep bank (on the left bank of the river when facing upstream) between the small (lower) and the larger (upper) dams, growing with *Bryoandersonia illecebra*, *Climacium americanum* and *Ctenidium molluscum*, 28 Feb 1973 (1926) (1927) (1929) (1931) (1932) EGW;

****Loch Dam Road about 0.3 mile north of Cromwell Bridge Road, on a grassy bank (on the left bank of the river when facing upstream) between the small (lower) and the larger (upper) dams, 4 Mar 1975 (1933) (1934) EGW].

67. ENTODONTACEAE [Hypnales] *Entodon cladorrhizans* (Hedwig) C. Müller [**Allegany Co.:** ****Green Ridge State Forest at Fifteen Mile Campground, 3-4 May 1975 (269) (270) EGW] [**Baltimore Co.:** ****Lone Hickory Farm on Bonita Ave. at the Ice Pond meadow, on bark at the base of a *Salix nigra* var. *falcata*, 13 Mar 1966 (266) HR] [**Frederick Co.:** ****Cunningham Falls State Park, on boulders in a mesophytic woods, associated with *Thuidium delicatulum* and *Ulota hutchinsiae*, 30 Jul 1961 (267) EGW].

Entodon seductrix (Hedwig) C. Müller [**Allegany Co.:** ****Little Orleans, on the vertical face of a stone block of a canal lock, 18 July 1959 (284) HR; ****Green Ridge State Forest at Fifteen Mile Creek Campground, 3-4 May 1975 (280) (283) EGW] [**Baltimore Co.:** ****Paper Mill Road, 0.8 mile east of the Loch Raven Bridge, growing on the upper surface and part way down the sides of a fallen Black Walnut (trunk 3 feet in diameter) in a woods of Black Walnut, Red Maple and Spicebush, 29 Feb 1960 (273) (275) (281) HSC, HR; ****Paper Mill Road near the Loch Raven Bridge, on ledges of Wissahickon schist, associated with *Bartramia pomiformis*, 21 Mar 1966 (274) HR; ****Patapsco State Park, on the bark of a fallen White Oak log (8 inches in diameter) 4 Mar 1961 (290) EGW; ****Northwest of Kendig's Mill Road, along the Western Maryland Railroad, on the bark of a *Salix nigra* var. *falcata* log, 12 Apr 1964 (287) HR; ****Route 40 (Pulaski Highway) at the Gunpowder Falls River in the woods in back of the picnic tables, on a rotting Black Willow log in a woods of White Ash, Black Willow, Spicebush, *Polygonum cuspidatum*, Sweet-flag and Wandering Jew, 28 Jun 1967 (293) EGW, ****Painter's Mill Road on the game refuge of McDonogh School, on the bark of a log, 3 Feb 1968 (291) EGW; ****Bonita Ave. in a woods along the Western Maryland Railroad near the distillery, on a Chestnut log, 18 Feb 1968 (277) EGW; ****Soldiers' Delight at Dolfield Road, in the woods by the stream crossing, partly on soil and partly running up the 10 inch diameter trunk of a *Quercus velutina*, 24 Feb 1968 (2535) EGW; ****Park Heights Ave., among grass of the lawn of Howard Pumpian, growing with *Astomum muehlenbergianum*, *Ceratodon purpureus*, *Pleuridium subulatum*, *Cirriphyllum illecebrum* and *Rhychostegium serrulatum*, 8 Apr 1968 (272) (285) (286) (297) EGW; ****Carroll Island, on soil at the edge of the parking lot across the road from the Quonset Hut, 5 May 1971 (303) EGW; ****Driveway of Carol and Helen Van Ness, on soil, 30 Dec 1972 (279) EGW; ****Old York Road at the Milton Inn, on the base (ground level up the trunk about 2½ feet) of a

large Sycamore (DBH 3 feet 8 inches) near the entrance to the inn, 7 Mar 1973 (271) EGW] [**Carroll Co.:** ****Hughes Road in Finksburg, at the base of a Chestnut stump in an oak-hickory woods, 12 Apr 1959 (302) EGW] [**Harford Co.:** ****Lapidu, on a rock, 17 Mar 1959 (288) EGW; ****Little Gunpowder River near the Old Philadelphia Road, on shady soil on the river bank under Tulip-trees and Sycamores, 1 Jun 1965 (300) EGW; ****Willoughby Beach Road about 0.4 mile southeast of Frey's Road in Edgewood, 7 Dec 1967 (282) (301) EGW] [**Montgomery Co.:** ****Great Falls National Park, in the woods below flood gate #11 about 100 yards from the Potomac River, on a slight amount of soil on a rock outcrop in a woods, 28 Feb 1983 (3116) EGW; **on a slight layer of soil on a rock outcrop in the woods between the canal and the Potomac River, 10 Feb 1984 (2415) (2419) EGW; **on wooden shingles on the roof of the tool shed next to the restrooms near the park headquarters, 8 Mar 1984 (2528) EGW] [**Washington Co.:** ****Mt. Aetna Youth Camp near Smithsburg on Mt. Aetna Road and Lena Road, in a woods of oak, hickory and Spicebush, 27 Jul 1969 (2573) EGW].

68. PLAGIOTHECIACEAE [Hypnales] *Isopterygiopsis muelleriana* (Schimper) Iwatsuki [**Baltimore Co.:** ****Ridgeway Ave. on the property of Milton Grover, on Wissahickon schist ledges on the northeast side of the North Branch of the Jones Falls, in a woods of beech, Black Oak, White Oak, Red Maple, Mockernut Hickory and Mt. Laurel (2360) EGW].

Plagiothecium cavifolium (Bridel) Iwatsuki [**Garrett Co.:** ****Casselman Bridge State Park at the picnic area, on soil, 26 Sep 1964 (2477) EGW; **** Casselman Bridge State Park, 10 Oct 1965 (1845) HR] [**Harford Co.:** ****Greene's Road on the way to Norrisville, on a ledge of "Castle Rock" at Jolly Acres Camp of the Lutheran Inner Missions, Inc., beside Deer Creek, 9 Jul 1959 (2476) H. Crum; ****Little Gunpowder River near the Old Philadelphia Road, on shady soil on the bank of the river under Tulip-trees and Sycamores, 1 Jun 1966 (1847) EGW; ****Edgewood Arsenal at Skipper's Point Road, 5 Dec 1967 (3268) EGW] [**Prince George's Co.:** ****Beltsville Agricultural Research Center, 100 yards from the Police Substation, on soil along a small rill in a Red Gum, Red Maple, *Clethra alnifolia* seepage swamp, 8 Feb 1965 (2479) HR].

Plagiothecium denticulatum (Hedwig) Bruch, Schimper & Gumbel [**Baltimore Co.:** ****[Bonita Ave., on a stone culvert crossing Bonita Ave. at the northwest angle of Lone Hickory Farm (2490) EGW; ****Lone Hickory Farm at the Upper Spring, 2 Sep 1955 (3326) WDR; ****Painter's Mill Lane, in woods near the bridge, on the bark of *Acer*

rubrum, from ground level up the trunk to a height of 6 inches, 20 May 1961 (2751) EGW; ****Kendig's Mill Road, in a woods northwest of the road along the Western Maryland Railroad tracks, on bark at the base of *Salix nigra*, 12 Apr 1964 (1843) HR; ****Harford Road near Notch Cliff Road along the Big Gunpowder River, on soil at the base of a large Sycamore, growing with *Pallavicinia lyelli*, 4 Nov 1964 (1839) HR; ****Bonita Ave. in Foster's woods, on soil at the base of a White Oak in a deciduous woods near a small stream, 27 Apr 1968 (1841) WDR] [**Harford Co.:** ****Edgewood Arsenal in back of the Medical Labs, on a very rotted crumbly remains of a log in a low swampy depression in a mesophytic woods of White Oak, Willow Oak and Sour Gum, 23 Sep 1966 (1840) EGW].

Plagiothecium laetum Bruch, Schimper & Gumbel [**Garrett Co.:** ****Carey Run Sanctuary, on moist soil near a brook in an open field with scattered trees of Canada Hemlock, Red Maple and Sugar Maple, 9 Oct 1964 (1844) EGW].

71. SEMATOPHYLLACEAE [Hookeriales] *Brotherella recurvans* (Michaux) Fleischer [**Baltimore Co.:** ****Upper Melina on Bonita Ave., on bark at the base of a Tulip-tree, 16 Apr 1965 (2759) EGW] [**Frederick Co.:** ****Cunningham Falls State Park, on soil among roots of Black Birch, Beech, Canada Hemlock and Hop Hornbeam, associated with *Thuidium delicatulum*, 30 Jul 1961 (1731) EGW] [**Garrett Co.:** ****Swallow Fall State Park, on soil on boulders under *Tsuga canadensis*, 28 Sep 1963 (1732) EGW; ****Swallow Fall State Park, on a rotting hemlock log 1½ feet in diameter, 28 Sep 1963 (2523) EGW; **on a rotting log 2 feet in diameter, under *Tsuga canadensis*, 28 Sep 1963 (2688) EGW; ****Amish Road 1/3 mile north of Foxtown, on a Pottsville sandstone outcrop or cliff in a shady frondose woods, Oct 1983 (3378) EGW; ****No location given (just Garrett Co.) 23 Sep 1989 (2858) EGW].

Brotherella tenuirostris (Bruch & Schimper ex Sullivant) Fleischer [**Baltimore Co.:** ****Bonita Ave. in Foster's woods, on the bark of White Oak, forming a large sheet from ground level up 4½ feet, 27 Apr 1968 (1733) (1734) WDR].

Sematophyllum adnatum (Michaux) E. G. Britton [**Baltimore Co.:** ****Windsor Mill Road on a rock in the woods of Rudolph Lucke, 3 Feb 1968 (1775) EGW] [**Harford Co.:** ****Edgewood Arsenal at Skipper's Point Road, ¼ mile from Rickett's Point Road, on soil in a mesophytic, frondose woods, 5 Dec 1967 (1770) EGW] [**Worcester Co.:** ****Pocomoke Swamp, 18 miles from Ocean City, on a rotting log, associated with *Tortella humilis*, 12 May 1962 (1774) WDR].

Sematophyllum demissum (Wilson) Mitten [**Baltimore Co.:** ****Soldiers' Delight, in a small ravine along the stream where the Fringed Gentians grow, on a rock at the edge of the woods (1762) EGF; ****Silver Run near the Gunpowder Road, about 1 mile above Pretty Boy Reservoir, on Wissahickon schist ledges along the river, associated with *Dicranum fulvum*, 28 Apr 1962 (1796) EGW; ****Paper Mill Road, on a Wissahickon schist ledge 20 feet from the cement bridge over Loch Raven, associated with *Thuidium delicatulum*, 8 Jul 1963 (1783) EGW; ****Dover Road at the Brewster estate, on a very thin layer of soil in a slight depression on a boulder, 6 Jul 1964 (1782) EGW] [**Harford Co.:** ****Lapidum, on rock, 17 Mar 1959 (1781) EGF & HR; ****Edgewood Arsenal, off Cemetery Road on soil in a woods along a creek, 30 Aug 1967 (1780) EGW].

Sematophyllum marylandicum (C. Müller) E. G. Britton [**Garrett Co.:** ****Swallow Falls State Park, on a large boulder in a stream in a woods, 28 Sep 1963 (1797) EGW; ****Casselman River and Route 40, about 3 miles west of Grantsville, on soil near the picnic grove and river, 26 Sep 1964 (1790) EGW; ****On rocks in a stream, Andrews Foray, 22-24 Sep 1989 (3364) Anna Felton].

**MARYLAND HEPATICS (LIVERWORTS) COLLECTED BY ELMER
WORTHLEY**

3. **FOSSOMBRONACEAE** [Metzgeriidae, Jungermanniopsida] *Fossombronia foveolata* Lindberg [**Baltimore Co.:** ****Lone Hickory Farm on Bonita Ave., on side of ditch on bare soil, 28 Nov 1968 (H354) EGW] [**Sommerset Co.:** ****Irish Grove Sanctuary, on soil of logging road with wheel ruts partly filled with water, 1 Dec 1968 (H355) EGW]

Fossombronia wondraczekii (Corda) Dumortier ex Lindberg [**Baltimore Co.:** ****Lone Hickory Farm on Bonita Ave., on soil of a roadside ditch, associated with *Notothylas orbicularis* and *Anthoceros laevis*, 9 Oct 1966 (H352) EGW; **21 Jul 1968 (H353) EGW]

4. **PELLIACEAE** [Metzgeriidae, Jungermanniopsida] *Pellia epiphylla* (L.) Corda [**Baltimore Co.:** ****Camp Alcoa, Hereford, damp soil along stream in deciduous woods, 5 Apr 1964 (H10) (H11) HR; ****Owings Mills, woods northwest of Kendig's Mill Road, silty bank of a small rill, 12 Apr 1964 (H12) HR; ****Dover Road, Daniel Brewster's estate, on muddy soil on a boulder at the edge of a stream, 6 Jul 1964 (H13) EGW; ****Greenspring Ave., Worthley property, on ledges of Wissahickon schist, 4 Jul 1969 (H18) EGW; ****Ridgeway Ave., on the Grover property, on soil in a mesophytic frondose woods, 8 Aug 1970 (H20) EGW; ****Gwynnbrook Ave. in the woods of Frank Price, on bare soil of a stream bank, 31 Oct 1965 (H16) EGW; ****Upper Melinda, on moist ledges along a woodland road, 22 May 1977 (H22) EGW] [**Carroll Co.:** ****Kay's Mill Road in Finksburg, on the Farley Farm, on soil on a ledge beside a woodland stream, 18 Mar 1973 (H21) EGW] [**Garrett Co.:** ****Swallow Falls, soil under *Ilex decidua* and Witch Hazel, 28 Sep 1963 (H9) EGW; ****Casselman Bridge State Park, on the muddy bank of the Casselman River, 26 Sep 1964 (H14) EGW; ****Carey Run Sanctuary, on moist soil near a brook in an open field, 9 Oct 1964 (H15) EGW] [**Harford Co.:** ****Route #40, about ½ mile south of Edgewood Road, on soil among *Pogonatum pensilvanicum*, 21 Sep 1967 (H17) EGW]

Pellia neesiana (Gottsche) Limpricht [**Garrett Co.:** ****Casselman Bridge State Park, on the muddy bank of the river, 26 Sep 1964 (H23) EGW]

5. **PALLAVICINIACEAE** [Metzgeriidae, Jungermanniopsida] *Pallavicinia lyellii* (Hooker) Carruth. [**Anne Arundel Co.:** ****Angel's Bog, on bark at the base of a 2 inch

DBH *Magnolia virginiana*, 19 Sep 1963 (H39) EGW; **on a rotting stump in a swampy woods, 19 Sep 1963 (H40) EGW] [**Baltimore Co.**: ****Gwynnbrook Ave., in Frank Price's woods, on moist soil in a low place in a woods of Red Maple and Tulip-tree, 15 Nov 1959 (H32) EGW; **among Sphagnum at the base of a Red Maple, 10 Feb 1963 (H37) EGW; **at the base of a Red Maple, 17 Feb 1963 (H38) EGW; **soil in a swampy woods, 31 Oct 1965 (H47) EGW; ****Reisterstown at Timber Grove Road and Bond Ave., moist soil in a swamp, 22 Sep 1962 (H34) (H35) (H36); ****Owings Mills near Bonita Ave., swampy soil under *Cornus ammomum*, 16 Nov 1963 (H41) EGW; **in G. P. Mahoney's corner woods, on bark at the base of a Red Maple, 17 Nov 1963 (H42) (H43) (H44) EGW; ****Harford Road near Notch Cliff Road, along the Gunpowder River, on soil at the base of a Sycamore tree, 4 Nov 1964 (H45) EGW; ****Greenspring Ave., swampy soil in a woods at the base of a Black Gum, 28 Feb 1965 (H46) EGW; **soil at the base of a Red Maple, 28 Mar 1965 (H390) EGW; **on ledges at a falls, growing with *Tetraphis pellucida*, 9 Jan 1966 (H49) EGW; ****Route #40, ¼ mile south of the the Harford County Line, at the edge of a seepage plain on rootlets and soil at the base of a Beech tree, 17 Dec 1965 (H48) EGW] [**Harford Co.**: ****Ebenezer Road at Grace's Quarters, on a sand bank eroded by the Bush River, 20 Jul 1961 (H33) EGW; ****Edgewood Arsenal, near Bush Road, in woods in back of dog kennels, on soil, rootlets and duff, 7 Jul 1967 (H52) EGW] [**Worcester Co.**: ****Route 113, about 2 miles southwest of Shad Landing and 1 mile north of Route 756, on decorticated rotting log, associated with *Lophocolea heterophylla* and *Platygyrium repens*, 20 Feb 1966 (H50) (H51) EGW].

8. **ANEURACEAE** [Metzgeriidae, Jungermanniopsida] *Riccardia multifida* (L.) S. Gray [**Baltimore Co.**: ****Camp Cone Boy Scouts camp, on the bank of the Gunpowder River, on soil growing with *Conocephalum conicum*, *Calypogeia trichomanis*, *Pellia epiphylla* and *Blepharostoma trichophyllum*, 12 Aug 1967 (H314) EGW].

10. **PSEUDOLEPICOLEACEAE** [Jungermanniidae, Jungermanniopsida] *Blepharostoma trichophyllum* (L.) Dumortier [**Baltimore Co.**: ****Heathcoat Mill, on soil, associated with *Tetraphis pellucida*, 27 Oct 1965 (H174) EGW; ****Upper Melinda, growing on soil on the bank of a small rill in a woods of Beech, Tulip-tree, White Oak and hickory, 22 Oct 1967 (H173) EGW] [**Harford Co.**: ****Edgewood Arsenal in back of the Medical Laboratory, on soil intermixed with *Pallavicinia lyallii*, *Odontoschisma prostratum*, *Leptodictyum riparium* and *Atrichum* sp., 6 Jul 1967 (H171) EGW] [**Worcester Co.**: ****Milburn Landing State Park, on a rotting stump, associated with

Cephalozia media, *Calypogeia trichomanis*, *Odontoschisma prostratum* and *Leucobryum glaucum*, 22 Jul 1967 (H172) EGW].

12. PTILIDIACEAE [Jungermanniidae, Jungermanniopsida] *Ptilidium pulcherrimum* (G. Web.) Hampe [**Baltimore Co.:** ****Piney Grove and Longnecker Road on the property of D. Rhode, on a decorticated *Castanea dentata* log in a woods of oak-hickory-Red Maple, 24 Oct 1965 (H3) EGW; ****North side of the Gunpowder River east of Bel Air Road, on a decorticated fallen tree, 3 Nov 1965 (H4) EGW; ****Pretty Boy Reservoir at "Possum Cove" near Bollinger's Road, on decorticated log in woods, 21 Nov 1965 (H5) HR; ****Soldiers' Delight, near the mine opening by the lumber company, associated with White Oak, Tupelo, Pinksterbloom Azalea and Mountain Laurel, 30 Dec 1967 (H6) EGW; ****Ridgeway Ave., on the Gover property, on the bark of a Black Oak stump, in a mesophytic frondose woods, 8 Aug 1970 (H7) EGW] [**Garrett Co.:** ****Swallow Falls, on the bark of a 3-foot-diameter hemlock stump, 28 Sep 1963 (H1) EGW] [**Howard Co.:** ****Sharp Road and Dorsey Mill Road, on a decorticated rotting log in an oak-hickory woods, 20 Jun 1964 (H2) EGW].

13. TRICHOCOLEACEAE [Jungermanniidae, Jungermanniopsida] *Trichocolea tomentella* (Ehrhart) Dumortier [**Baltimore Co.:** ****Bonita Avenue at Upper Melinda, on a prostrate rotting log, growing with *Thuidium delicatulum*, 31 Jan 1960 (H383) EGW; **on a low swampy spot along a brook, growing with *Conocephalum conicum*, 9 Jan 1966 (H385) EGW; **in a mature Tulip-tree woodland along a small rill, 5 Aug 1967 (H386) EGW; **in woods below a small bridge over Councilman's Run at the entrance to the Bell estate, 2 Mar 1968 (H387) EGW].

14. LEPIDOZIACEAE [Jungermanniidae, Jungermanniopsida] *Bazzania trilobata* (L.) S. Gray [**Baltimore Co.:** ****Bank of Silver Run at the Gunpowder Road, on rock ledges, associated with Hemlock woods, 28 Apr 1962 (H134) PLR; ****Camp Alcoa in Hereford, on soil in a woods along the Gunpowder River, 5 Apr 1964 (H137) HR; ****Tufton Ave. and Dover Road, on the Martin property, growing on a mat of moss in soil on boulders around a waterspout in the shade of oak trees, 2 Nov 1985 (H146) EGW] [**Garrett Co.:** ****Swallow Falls State Park, on a rotten log in a hemlock forest, 14 Jun 1958 (H133) EGW; **bark of a 3-foot-diameter hemlock stump, 28 Sep 1963 (H135) EGW; **rotting 1.5-foot-diameter hemlock log, 28 Sep 1963 (H136) EGW] [**Harford Co.:** ****Little Gunpowder Falls at Laurel Brook Road near Bottom Road, on ledges and boulders of Wissahickon schist along a stream, 4 Mar 1966 (H138) EGW].

Kurzia sylvatica (Evans) Grolle [Anne Arundel Co.: ****Angels Bog on Mt. Road (Route 177), on a rotting decorticated stick lying on the ground under a Cinnamon Fern, 19 Sep 1963 (H329) EGW].

Lepidozia reptans (L.) Dumortier [Garrett Co.: ****Swallow Falls, on ledges along a wooded rill entering into the main river, 100 yards from the falls, 28 Sep 1963 (H325) EGW].

15. CALYPOGEIACEAE [Jungermanniidae, Jungermanniopsida] *Calypogeia fissa* (L.) Raddi [Baltimore Co.: ****North side of Gunpowder Falls east of Belair Road, on dam soil of a spring seepage, 3 Nov 1965 (H203) EGW] [Harford Co.: ****Edgewood Arsenal, in back of the Medical Laboratory at the edge of a swale, growing with *Atrichum* sp., *Aulacomnium palustre*, *Odontoschisma prostratum* and *Pallavicinia lyallii*, 6 Jul 1967 (H204) EGW].

Calypogeia trichomanis (L.) Corda [Baltimore Co.: ****Goucher College Campus in Towson, on soil in a mesophytic woods of White Oak and Mockernut Hickory, growing with *Scapania nemorosa*, 21 Mar 1963 (H157) HR; ****Park Heights Ave. near Valley Road, on soil in a woods, associated with *Scapania nemorosa*, 1 Apr 1964 (H159) HR; ****Camp Cone off Harford Road, on south slope of the Gunpowder River in a woods of Tulip-tree, Red Maple, White Oak, American Beech and Black Oak, 12 Aug 1967 (H164) (H165) EGW; ****Greenspring Ave., on the Wilkins property, growing in a woods at the base of a Spice Bush with *Thuidium delicatulum* and *Plagiothecium* sp., 7 Sep 1967 (H166) EGW; ****Soldiers' Delight near Dolfield Road, on soil on the bank of a woodland spring, growing with *Diplophyllum apiculatum*, *Calypogeia trichomanis*, *Scapania nemorosa*, *Atrichum angustatum* and *Dicranella heteromalla*, 13 Oct 1967 (H168) EGW; ****Upper Melinda, on soil of a rill bank in a Beech, Tulip-tree, hickory woods, growing with *Blepharostoma trichophyllum*, *Chiloscyphus polyanthos*, *Cephalozia lunulifolia* and *Dicranella heteromalla*, 22 Oct 1967 (H169) EGW; ****Ridgeway Ave., on the property of Milton Gover, on soil on schist ledges in a mesophytic frondose woods of oak, hickory, beech, Red Maple and Tulip-tree, 8 Aug 1970 (H170) EGW] [Harford Co.: ****Edgewood Arsenal at Skippers Point Road, on soil and very rotten wood in a mesophytic woods, 3 Oct 1963 (H158) MF; **on a decorticated log in a moist shady woods, growing with *Blepharostoma trichophyllum*, *Nowellia curvifolia* and *Dicranum flagellare*, 2 Aug 1967 (H163) EGW; ****Bank of Bynum Run at Wheel Road, on

decorticated log in a mesophytic woods, growing with *Nowellia curvifolia* and *Lophocolea heterophylla*, 4 Oct 1967 (H167) EGW] [**Garrett Co.:** ****Carey Run Sanctuary, in moist soil near a stream in an open field with scattered Canada Hemlock, Red Maple and Sugar Maple trees, 9 Oct 1964 (H160) EGW] [**Worcester Co.:** ****Milburn Landing State Park, on duff and rootlets in a swampy woods of American Holly, Cross Vine, Netvein Chain Fern, Bald Cypress, Sour Gum and Sweet Gum, 22 Jul 1967 (H161) (H162) EGW].

17. **CEPHALOZIACEAE** [Jungermanniidae, Jungermanniopsida] *Cephalozia catenulata* (Hübener) Lindberg [**Worcester Co.:** ****Milburn Landing State Park, on a rotting log in a Bald Cypress swamp, 24 Jul 1965 (H206) EGW].

Cephalozia lunulifolia (Dumortier) Dumortier [**Anne Arundel Co.:** ****Angels Bog, off Md. Route 177, growing on a rotting decorticated stick lying on the ground under a Cinnamon Fern, associated with *Odontoschisma prostratum*, *Lepidozia sylvatica*, *Pallavicinia lyellii* and *Plagiothecium denticulatum*, 19 Sep 1963 (H175) EGW] [**Baltimore Co.:** ****Bonita Ave., woods near the Hunter-Wilson Distillery, on twigs and duff at the base of *Osmunda cinnamomea* in a wet swampy Red Maple woods, 18 Nov 1963 (H176) HR; ****Upper Melinda, on soil of a bank of a small stream in a woods of beech, Tulip-tree, hickories and White Oak, growing with *Blepharostoma trichophyllum*, *Calypogeia trichomanis*, *Chiloscyphus polyanthos* and *Dicranella heteromalla*, 22 Oct 1967 (H178) EGW; **in a woods on soil on the bank of Councilman's Run, growing with *Blepharostoma trichophyllum*, 2 Mar 1968 (H179) EGW] [**Garrett Co.:** ****Off Amish Road, 1/3 mile north of Foxtown, on a Pottsville sandstone outcrop in a shady woods of deciduous trees, 4 Sep 1983 (H392) EGW] [**Worcester Co.:** ****Milburn Landing, on moist soil in a swampy woods alongside of the Pocomoke River, growing with *Blepharostoma trichophyllum*, *Odontoschisma prostratum*, *Calypogeia trichomanis* and *Leucobryum glaucum*, 22 Jul 1967 (H177) EGW].

Nowellia curvifolia (Dickson) Mitten [**Baltimore Co.:** ****Greenspring Ave., in the woodland property of E. R. Wilkins, on a decorticated Chestnut log, 10 Apr 1966 (H148) (H149) (H150) (H151) EGW; ****Camp Cone off Harford Road, on the south bank of the Little Gunpowder River, 12 Aug 1967 (H153) EGW; ****Greenspring Ave., on the Worthley property, growing on a decorticated log lying next to a waterfall, 4 Jul 1969 (H155) EGW; **in woods growing on a dead oak log about 2½ feet in diameter, 11 Apr 1976 (H156) EGW] [**Harford Co.:** ****Edgewood Arsenal at Skipper's Point, on a decorticated log in a mesophytic frondose woods, growing with *Calypogeia trichomanis*,

Blepharostoma trichophyllum and *Dicranum flagellare*, 2 Aug 1967 (H152) EGW; ****Wheel Road along the bank of Bynum Run, on a decorticated log in a woods of Red Oak, Red Maple, Tulip-tree, Flowering Dogwood, Spicebush, Witch Hazel and Blue Beech, growing with *Lophocolea heterophylla*, 4 Oct 1967 (H154) EGW] [**Howard Co.:** ****Patapsco State Park, on a rotting log along the Patapsco River, 6 Jul 1963 (H147) EGW].

18. **ADELANTHACEAE** [Jungermanniidae, Jungermanniopsida] *Odontoschisma denudatum* (Nees ex Mart.) Dumortier [**Baltimore Co.:** ****Kendigs Mill Road, in a shady spot on the bare bank of a roadcut, growing with *Pogonatum pensilvanicum* and *Mnium cuspidatum*, 18 Jul 1959 (H253) EGW; **on bare soil of a roadcut through a woods, 1 Apr 1964 (H257) EGW; ****Upper Melinda, on a Wissahickon schist ledge along a road below the bridge across Councilman's Creek, growing with *Pohlia nutans*, 2 Mar 1968 (H258) EGW] [**Harford Co.:** ****Edgewood Army Chemical Center, on soil under Red Gum, Red Maple and Sour Gum, 17 Sep 1959 (H255) EGW] [**Washington Co.:** ****One mile south of Route 40 and 5 miles west of Hancock, on leafy woods' soil in shade along a roadcut, 19 Jul 1959 (H254) EGW].

Odontoschisma prostratum (Swartz) Trev. [**Baltimore Co.:** ****Oregon Ridge, Beaver Dam Road, ½ mile from Shawan Road, growing with *Leucobryum glaucum*, *Tetraphis pellucida*, *Thuidium delicatulum*, *Dicranum flagellare* and *Anomodon attenuatus*, 11 Dec 1966 (H264) EGW; ****Around Bosley Road Quarry, off Dulaney Valley Road, 10 Mar 1968 (H268) EGW; ****Greenspring Ave. on the Worthley property, on a decorticated log, growing with *Tetraphis pellucida* and *Dicranella heteromalla*, 6 Jul 1968 (H269) EGW] [**Garrett Co.:** ****Carey Run Sanctuary, on soil on the sides of a small stream in a meadow, 5 Oct 1963 (H260) EGW] [**Harford Co.:** ****Edgewood Arsenal at Skipper's Point Road, on a rotten log in a mesophytic woods of White Oak, Willow Oak, Tupelo and Tulip-tree, 2 Oct 1963 (H259) MF; **back of Building 3220, on ground (in part) and on the base of the trunk of a Pond Pine, 11 Feb 1965 (H261) EGW; **in back of the Medical Laboratory, on soil at the edge of a small wooded moist depression, growing with *Blepharostoma trichophyllum*, *Calypogeia trichomanis* and *Pallavicinia lyellii*, 6 Jul 1967 (H266) EGW; ****Trimble Road, about 200 yards from Magnolia Road, on soil at the base of a Red Maple, 15 Aug 1967 (H267) EGW] [**Somerset Co.:** ****Irish Grove Sanctuary, on soil growing with *Lophocolea heterophylla* and *Dicranum flagellare*, 1 Dec 1968 (H270) EGW] [**Talbot Co.:** ****Md. Route 662, .6 mile from Route 50 and about 1 mile southwest of Wye, on soil in a seepage swamp along a small stream in woods of

Sycamore, Tulip-tree, and Swamp White Oak, 19 Feb 1966 (H265) HR] [**Worcester Co.:** ****Milburn Landing, on sandy loam under an open 35 year-old stand of *Pinus taeda*, 24 Jul 1965 (H262) (H263) EGW].

19. **CEPHALOZIELLACEAE** [Jungermanniiidae, Jungermanniopsida] *Cephaloziella hampeana* (Nees) Schiffner *ex* Loeske [**Baltimore Co.:** ****Park Heights Ave., about ½ mile south of Caves Road, on soil in a woods with *Scapania nemorosa*, 26 Jul 1968 (H207) EGW].

21. **LOPHOCOLEACEAE** [Jungermanniiidae, Jungermanniopsida] *Chiloscyphus polyanthos* (L.) Corda [**Baltimore City:** ****Worthington Ave., on a small branch projecting 4 inches above the surface of a small woodland pond, growing with *Amblystegium tenax*, 16 Aug 1959 (H180) HR] [**Baltimore Co.:** ****Upper Melinda, on a fallen tree trunk lying in the bed of a small rill, 29 Jun 1963 (H181) EGW; **on rocks in the bed of a small stream, 29 Jun 1963 (H182) EGW; **along a small rill in a woods of Beech, Tulip-tree, White Oak and hickory, 22 Oct 1967 (H183) EGW].

Lophocolea bidentata (L.) Dumortier [**Baltimore Co.:** ****Along Route 40 (Pulaski Highway) in a Picnic area about ¼ mile from the Harford County line, in a woods on a rotting Chestnut log, 17 Dec 1965 (H330) EGW; ****Greenspring Ave., on the Worthley estate, on a rock in a brook near a fireplace, 6 Jul 1968 (H332) EGW] [**Harford Co.:** ****Edgewood Arsenal, in a woods off a dirt road leading from Otto Road, on the base of a White Oak trunk, a few stems growing on top of a large clump of *Dicranum flagellare*, 11 Dec 1967 (H331) EGW].

Lophocolea cuspidata (Nees) Limpricht [**Baltimore Co.:** ****Upper Melinda on Bonita Ave., growing on a moist fallen, decorticated oak log lying in the bed of a small stream, 29 Jun 1963 (H333) EGW].

Lophocolea heterophylla (Schrader) Dumortier [**Baltimore City:** ****Cylburn Wildflower Preserve and Garden, on a rotting log on the ground, 21 Sep 1963 (H62) EGW] [**Baltimore Co.:** ****Soldiers' Delight at Dolfield Road, on rather dry soil under *Pinus virginiana* at the edge of a small stream, 15 Aug 1959 (H54) HR; **off Deer Park Road, on soil in an open woods of Virginia Pine and oaks, with *Thuidium delicatulum* and *Dicranum scoparium*, 8 Apr 1960 (H55) EGW; **Dolfield Road near a storm pipe, on soil at the base of a Virginia Pine, 14 Mar 1965 (H86) EGW; **Wards Chapel Road, in an oak-

hickory woods on a slope overlooking where *Gentiana crinita* and *G. clausa* grows, on duff and leaves at the base of a *Pinus virginiana*, 25 Sep 1965 (H88) EGW; **Wards Chapel Road, on a hillside overlooking where Gentian grows, on the bark of a prostrate log, 25 Sep 1965 (H89) EGW; ****Silver Run off Gunpowder Road, about 1 mile above Pretty Boy Reservoir, on the bark at the base of a White Oak, 12 Jun 1962 (H58) PLR; ****Upper Melinda, on Wissahickon schist ledges, associated with *Mnium cuspidatum* and *Fissidens* sp., 6 Feb 1963 (H60) HR; **in a woods below a small bridge over Councilman's Run, 2 Mar 1968 (H102) EGW; **on bark at the base of a *Quercus alba*, 28 Nov 1968 (H104) EGW; ****Lake Roland, Robert E. Lee Memorial Park, on soil on ledges under Beech, Black Oak and Black Walnut, 3 Nov 1963 (H67) HR; ****All Saint's Cemetery in Reisterstown, on soil around the roots and base of an *Acer platinoides*, 15 Nov 1963 (H68) HR; ****Bonita Ave. in Owings Mills, 300 yards north of the Hunter-Wilson Distillery, in a swamp on bark at the base a Red Maple, 16 Nov 1963 (H69) HR; **on bark at the base of a Red Maple, 24 Sep 1964 (H81) HR; **soil on a hillside covered with Tulip-tree, Black Walnut and White Ash, 10 Apr 1965 (H87) EGW; ****Paper Mill Road, on a thin layer of soil on Wissahickon schist ledges, 13 Mar 1964 (H70) EGW; ****Patapsco State Park near Hilton Ave., on soil at the base of a *Quercus alba*, 14 Mar 1964 (H71) HR; ****Liberty Reservoir, near picnic tables by the Dam, on soil at the base of a White Oak, 25 Apr 1964 (H72) HR; ****Dover Road at D. Brewster's estate, on bark at the base of a White Oak, 6 Jul 1964 (H80) EGW; ****Lone Hickory Farm, on rather dry soil on a switch road bank under White Oak and Black Cherry, associated with *Polytrichum ohioense* and *Dicranella heteromalla*, 21 Feb 1965 (H85) EGW; ****Piney Grove Road and Longnecker Road at D. Rhode's estate, on soil at the base of a Black Oak, 24 Oct 1965 (H90) EGW; ****Gwynnbrook Ave. in Frank Price's woods, on rootlets and soil in a swampy woods of Red Maple, Tupelo and White Oak, 31 Oct 1965 (H92) EGW; **on a rotting log in a swampy woods, 31 Oct 1965 (H91) EGW; ****Painters Mill Road, on bark at the base of a Pin Oak, 8 Nov 1965 (H93) EGW; **game refuge on McDonogh School grounds, on a decorticated log in a swampy woods, 3 Feb 1968 (H101) EGW; **on a rotting log of *Quercus alba* at the edge of a transient woodland pool, 13 Feb 1970 (H105) EGW; ****Oregon Ridge, Beaver Dam Road, ½ mile from Shawan Road, on soil, growing with *Dicranella heteromalla* and *Ditrichum pallidum*, 11 Dec 1966 (H98) EGW; ****Camp Cone off Harford Road, in woods on the south slope of the Gunpowder River, 12 Aug 1967 (H99) EGW; ****Park Heights Ave., about 1 mile west of Caves Road, in a woods along the bank of a small stream, on a rotting stump base with *Tetraxis pellucida* and *Leucobryum glaucum*, 22 Feb 1975 (H334) EGW; ****Hicks Road at the bridge over the Gunpowder Falls in Whitehall, on soil of a shaded wooded bank, growing with

Pleuroidium subulatum and *Atrichum undulatum*, 17 Apr 1983 (H106) EGW] [**Carroll Co.:** ****Reese Road, 17 Jan 1987 (H107) EGW] [**Dorchester Co.:** ****Route 50, 3 miles south of the Salem exit, on soil on the bank of a small pond on the eastern side of Route 50, under willows and Buttonbushes, 20 Feb 1966 (H95) HR] [**Garrett Co.:** ****Carey Run Sanctuary, on a decorticated hemlock log, 5 Oct 1963 (H64) (H65) (H66) EGW; **moist soil near a stream in a field with scattered Canada Hemlock, Red Maple and Sugar Maple trees, 9 Oct 1964 (H82) EGW; ****Casselman River State Park, on soil, growing with *Scapania nemerosa*, and *Atrichum angustatum*, 10 Oct 1968 (H103) EGW] [**Harford Co.:** ****U.S. Army Chemical Center in Edgewood, in wood back of the Biophysics Center, at the base of a White Oak, associated with *Leucobryum glaucum*, 12 Mar 1962 (H56) (H57) EGW; **Skipper's Point Road, on a rotting log in a mesophytic woods, associated with *Dicranella heteromalla*, 2 Oct 1963 (H63) HR; **back of Building 3230, on the ground under Willow Oak, Spanish Oak and Pond Pine, 11 Feb 1965 (H84) EGW; ****Trimble Road in Edgewood, on soil on a road bank, 14 Dec 1965 (H94) EGW; **on a decaying log, 15 Aug 1967 (H100); ****Laurel Brook Road in Fallston, on the old bed of the Ma & Pa Railroad, on a rotting log, 22 Mar 1966 (H96) HR] [**Howard Co.:** ****Daniels Road near the Patapsco River and dam, on a slight layer of rich organic soil on ledges in an oak woods, 29 Sep 1962 (H59) HC; ****Patapsco State Park, on a decorticated log in an oak-hickory-beech woods along the Patapsco River, 6 Jul 1963 (H61) EGW; ****Sharp Road and Dorsey Mill Road, on the bark at the base of a *Quercus imbricaria*, 20 Jun 1964 (H79) EGW] [**Worcester Co.:** ****Pocomoke Swamp near Whaleysville, on a rotting log under Bald Cypress trees, 10 May 1964 (H73) (H76) (H77) (H78) EGW; ****West Ocean City, behind Wyatt's Cabins, on the bark of a rotting Loblolly Pine log, 10 May 1964 (H74) (H75) EGW].

Lophocolea minor Nees [**Baltimore Co.:** ****Camp Cone Boy Scout Camp, on the south slope of the Gunpowder River in a woods of Tulip-tree, Red Maple, White Oak, American Beech and Black Oak, 12 Aug 1967 (H337) EGW] [**Harford Co.:** ****Edgewood Arsenal, in back of Building 3220, growing at the base of a Sour Gum sapling and partly on the ground in a moist seepage area, 12 Oct 1966 (H336) EGW]

23. PLAGIOCHILACEAE [Jungermanniidae, Jungermanniopsida] *Plagiochila porelloides* (Torrey ex Nees) Lindenb. [**Baltimore Co.:** ****Camp Cone, on soil on ledges on the bank of the Gunpowder River in a Beech and Tulip-tree woods, 12 Aug 1967 (H28) EGW; ****Upper Melinda, along Councilman's Run, on rock of Wissahickon schist, 2 Mar 1968 (H29) EGW; **along a small tributary of Councilman's Run, on a

Wissahickon schist ledge in a mesophytic woods, growing with *Radula complanata*, *Cololejeunea biddlecomiae*, *Conocephalum conicum*, *Dicranum fulvum* and *Thuidium delicatulum*, 28 Nov 1968 (H30) EGW] [**Frederick Co.**: ****on thin soil over small boulders in a nearly dry rill in a woods of Canada Hemlock, American Beech, Black Birch and Hop Hornbeam, 30 Jul 1961 (H24) EGW] [**Harford Co.**: ****Laurel Brook Road, growing on the vertical face of a Wissahickon schist ledge in a woods of Tulip-trees and White Oaks, 4 Mar 1966 (H26) EGW; ****Pleasantville Road, near the bridge over the Little Gunpowder River, on a soil layer 1 inch thick on Wissahickon schist ledges, 15 Mar 1966 (H27) EGW] [**Howard Co.**: ****Patapsco State Park, on soil on the moist bank of the Patapsco River in an oak-hickory-beech woods, 6 Jul 1963 (H25) EGW].

27. **JUNGERMANNIACEAE** [Jungermanniidae, Jungermanniopsida] *Mylia anomala* (L.) S. Gray [**Baltimore Co.**: ****Park Heights Ave., ½ mile south of Caves Road, growing on a decorticated log lying partly in a small rill, growing with *Lophocolea bidentata*, 26 Jul 1968 (H381) EGW].

28. **GYMNOMITRIACEAE** [Jungermanniidae, Jungermanniopsida] *Marsupella sphacelata* (Gieseke ex Lindenb.) Dumortier [**Garrett Co.**: ****Swallow Falls State Park, growing on a boulder in a stream, 28 Sep 1963 (H380) EGW].

29. **SCAPANIACEAE** [Jungermanniidae, Jungermanniopsida] *Diplophyllum apiculatum* (Evans) Steph. [**Baltimore Co.**: ****Paper Mill Road, 100 feet from the high bridge over Loch Raven Reservoir, on rocky ledges, associated with *Dicranum fulvum*, 18 May 1961 (H208) EGW; **on thin soil over ledges of mica schist, associated with *Leucobryum glaucum* and *Thuidium delicatulum*, 12 Apr 1962 (H209) HC; **on a Wissahickon schist ledge by the road, growing with *Bartramia pomiformis*, *Dicranum scoparium* and *Cirriphyllum illecebra*, 4 Aug 1968 (H217) EGW; ****Camp Alcoa near Hereford, on soil in a woods along the Gunpowder River, associated with *Diphyscium foliosum*, 5 Apr 1964 (H210) (H211) HR; **on ledges in a woodland, growing with *Calypogeia trichomanis* and *Blepharistoma trichophyllum*, 12 Aug 1967 (H214) EGW; ****Route 40, about ¼ mile from the Harford Co. Line and the Gunpowder River, on bark at the base of a Beech tree, 17 Dec 1965 (H213) EGW; ****Upper Melinda in Owings Mills, along a small rill below a bridge on Wissahickon schist in a woods of Beech, Tulip-tree and Mockernut Hickory, 22 Oct 1967 (H215); ****Greenspring Ave. on the Worthley property, on soil on a wooded stream bank by a foot bridge, growing with *Tetraphis pellucida*, *Odontoschisma prostratum* and *Dicranella heteromalla*, 6 Jul 1968 (H216) EGW] [**Carroll Co.**:

****Hughes Road in Finksburg, on soil of a roadbank in a woods, growing at the base of a large White Oak, 1 May 1965 (H212) EGW; ****Kay's Mill Road in Finksburg on the Farley's Farm, on vertical clifflike rock along a small stream in a woods, 20 Dec 1972 (H218) (H219) EGW].

Scapania nemorosa (L.) Dumortier [**Allegany Co.:** ****Near Route 40, one mile east of Shipway's Motel, in a woods on soil on a ledge, growing with *Diplophyllum apiculatum*, *Frullania eboracensis* and *Platygyrium repens*, 10 Oct 1965 (H241) (H242) EGW] [**Baltimore City:** ****Herring Run Park, on soil under *Lyonia mariana*, *Lyonia ligustrina*, *Gaylussacia frondosa* and *Quercus prinus*, 6 Oct 1963 (H234) MF; **soil on the side of a path, growing with *Atrichum undulatum*, in a woods of *Quercus prinus*, *Q. velutina* and *Kalmia latifolia*, 7 Oct 1962 (H225) HC; **on soil in a woods of Chestnut Oak, Black Oak, Spanish Oak and *Lyonia mariana*, 17 May 1964 (H235) HR] [**Baltimore Co.:** ****Paper Mill Road, about 100 yards south of the bridge over Loch Raven Reservoir, on soil between moss on a Wissahickon schist ledge, 1 Oct 1959 (H221) (H222) PLR; **on ledges near the high bridge over Loch Raven, growing on ledges with *Dicranum fulvum*, 18 May 1961 (H223) (H224) EGW; **on soil of the bank of the reservoir at the edge of a woods, 4 Aug 1968 (H249) EGW; ****Patapsco State Park, on shaded soil on a stream bank, in an oak-hickory-beech woods, associated with *Dicranella heteromalla*, 6 Jul 1963 (H226) (H227) (H228) EGW; ****Dover Road on D. Brewster's estate, on a thin layer of soil on a boulder at the edge of a stream above a falls, 6 Jul 1964 (H236) EGW; ****Worthington Ave. in the woods of E. R. Wilkins, on an inch of soil on moist ledges bordering a small waterfall in an oak-hickory-ash-Sour Gum woods, 28 Feb 1965 (H237) EGW; ****Upper Melinda, on soil of a road cut in a woods of Tulip-trees and Red Maples, 3 Jun 1965 (H239) (H240) EGW; **in woods below a small bridge over Councilman's Run, growing on soil on a roadside bank with *Thuidium delicatulum*, 2 Mar 1968 (H248) EGW; ****Piney Grove Road and Longnecker Road on Dave Rhode's estate, on bare soil along a woods road, 24 Oct 1965 (H243) EGW; ****Greenspring Ave. in the woods of E. R. Wilkins, on bare soil along a woods road, 9 Jan 1966 (H244) EGW; ****Ridgeway Ave. on the property of Milton Gover, on soil on the north branch of the Jones Falls stream, in a mesophytic frondose woods, 8 Aug 1970 (H250) EGW] [**Garrett Co.:** ****Swallow Falls, on a large boulder in a stream in a woods just above the falls, 28 Sep 1963 (H231) (H232) (H233) EGW] [**Howard Co.:** ****Patapsco State Park, on shaded soil on the bank of a stream in an oak-beech-hickory woods, 6 Jul 1963 (H229) (H230) EGW] [**Kent Co.:** ****Chestertown on the estate of D. Wendinhal, on bare soil on the bank of a stream, 16 May 1965 (H238) EGW].

Scapania undulata (L.) Dumortier [**Baltimore Co.:** ****Goucher College in Towson, on a dump heap of clay in a woods of White Oak and Mockernut Hickory, growing with *Dicranella heteromalla*, 21 Mar 1963 (H252) EGW].

31. **RADULACEAE** [Jungermanniidae, Jungermanniopsida] *Radula complanata* (L.) Dumortier [**Baltimore Co.:** ****Upper Melinda, near the entrance to A. Bell's driveway, on a Wissahickon schist ledge in a wooded are along Councilman's Run, growing with *Cololejeunea biddlecomiae*, *Conocephalum conicum*, *Dermatocarpon fluviatile*, *Dicranum fulvum* and *Thuidium delicatulum*, 28 Nov 1968 (H285) EGW].

32. **PORELLACEAE** [Jungermanniidae, Jungermanniopsida] *Porella pinnata* Linnaeus [**Worcester Co.:** ****Nassawango Creek, growing in blackish festoons from high tide level down into the water from the bases of Bald Cypress and their pneumatophores, 18 Oct 1981 (H361) (H362) (H363) EGW].

Porella platyphylla (L.) Pfeiff. [**Baltimore Co.:** ****Soldiers' Delight, on the bark of *Quercus stellata* at ground level to 10 inches up the trunk, 15 Aug 1959 (H364) PLR].

Porella platyphylloidea (Schwein.) Lindberg [**Baltimore Co.:** ****Soldiers' Delight, on the bark of *Quercus stellata* at ground level (but not entirely on the bark) to 10 inches up the trunk, 15 Aug 1959 (H365) PLR; **near Deer Park Road, on the bark of a White Ash along a stream, growing with *Frullania eboracensis*, 6 Apr 1983 (H372) EGW; ****Perry Hall on Klausmier Road, on a thin layer of soil covering a rock on the bank of a small stream at the end of a gravel road, 18 Jul 1967 (H366) EGW; ****Painters Mill Road, in a swampy woods of the game refuge of McDonogh School, 3 Feb 1968 (H368) EGW; ****Paper Mill Road near the high bridge over Loch Raven Reservoir, on Wissahickon schist ledges in a woods, associated with *Frullania asagrayana*, 4 Aug 1968 (H369) EGW; ****Bonita Ave. on G. P. Mahoney's estate, growing on swampy soil and roots of *Lindera benzoin*, 9 Mar 1969 (H370) EGW] [**Frederick Co.:** ****Catocin State Park, growing on a rock outcropping with lichens and bryophytes on the south slope due north up the mountain from the Cunningham Fall turn off, 10 Feb 1973, (H371) R. S. Farley III].

33. **JUBULACEAE** [Jungermanniidae, Jungermanniopsida] *Frullania asagrayana* Montagne [**Baltimore Co.:** ****Silver Run near the Gunpowder Road about 1 mile above Pretty Boy Reservoir, on the bark of a White Oak (18 inches DBH), 4-7 feet above the

ground, associated with *Platygyrium repens*, 28 Apr 1962 (H346) PLR; ****Soldiers' Delight, Wards Chapel Road, in a woods on a thin layer of soil covering a boulder, 1 Oct 1965 (H347) EGW; ****Paper Mill Road near the high bridge over Loch Raven Reservoir, on Wissahickon schist ledges in a woodland, 4 Aug 1968 (H349) EGW] [**Carroll Co.:** ****Kay's Mill Road, Finksburg, near the bridge over Beaver Run, on Wissahickon schist ledges, associated with *Ptilidium pulcherrimum*, 15 Mar 1969 (H350) (H351) EGW] [**Harford Co.:** ****Laurel Brook Road near Laurel Brook, on ledges of Wissahickon schist in a Tulip-tree and White Oak woods, 4 Mar 1966 (H348) EGW].

Frullania eboracensis Gottsche [**Baltimore Co.:** ****Soldiers' Delight, Deer Park Road, on the bark of a Post Oak, 8 Apr 1960 (H108) MF; ****Patapsco State Park, on the bark a White Oak, about 5 feet above the ground, 4 Mar 1961 (H109) (H110) PLR; ****Route 40 (Pulaski Highway) about 4 miles north of White Marsh, on the bark of the trunk of a White Ash about 4-5 feet above the ground, 20 Apr 1962 (H111) EGW; ****Duncan Hill Road near Belfast Road, on a small branch of Piney Run, head high on the bark of a Sour Gum, associated with *Orthotrichum* sp., 3 Feb 1963 (H113) EGW; ****Caves Road, on the bark of a White Ash, 16 inches DBH, 6 Feb 1963 (H393) EGW; **on bark of a White Ash, 6 inches DBH, 1.5 feet above the ground, in a swampy woodland, 7 Feb 1963 (H114) EGW; **on the bark of *Quercus velutina*, 2 feet 8 inches DBH, about 4 feet above the ground, in a swampy woodland, 7 Feb 1963 (H115) EGW; ****Kendig's Mill Road in Owings Mills, on the bark of *Quercus alba*, 8 inches DBH, 4-5 feet above the ground, 11 Oct 1963 (H120) HR; **on the bark of *Salix nigra* log in a woodland of Red Maple, Black Willow and Alder, 12 Apr 1964 (H123) (H124) (H125) HR; ****Harford Road near Notch Cliff Road, along the Gunpowder River, on the bark at the base of a Sycamore tree, 4 Nov 1964 (H130) EGW] [**Carroll Co.:** ****Hughes Road in Finksburg, on the bark of a White Ash, 5 inches DBH, 2 feet above the ground, 24 Oct 1963 (H119) HR; ****Liberty Road, along an old road near the bridge across Liberty Reservoir, on the bark of *Quercus alba*, 2.5 feet DBH, 3-7 feet above the ground, 22 Nov 1963 (H121) HR] [**Garrett Co.:** ****Swallow Fall State Park, at Camping Site #95, on the bark of *Quercus alba*, 5 inches DBH, 1-12 feet above the ground, 28 Sep 1963 (H117) EGW; **on the bark of *Quercus alba*, 4 inches DBH, and 5 feet above the ground, 28 Sep 1963 (H118) EGW; ****Casselman Bridge State Park, on the bark of a large *Quercus alba*, 26 Sep 1964 (H129) EGW] [**Howard Co.:** ****Sharp Road and Dorsey Mill Road, on the bark of a Shingle Oak, 1.5 feet DBH, 20 Jun 1964 (H128) EGW] [**Worcester Co.:** ****Milburn Landing, on the bark of a White Oak, 3 inches DBH, 11 May 1963 (H116) EGW; ****Pocomoke Swamp at Whaleysville, on the bark of *Acer rubrum*, 18 inches DBH, 10 May 1964 (H126) (H127) EGW; **on the

bark of a Red Maple, 1 foot DBH, 9 May 1965 (H131) EGW; ****US/Md. 113, about 2 miles southwest of Shad Landing, on the bark of *Magnolia virginiana*, in a wooded swamp of Swamp-bay Magnolias, Red Maples and Bald Cypress, growing with *Thelia hirtella*, 20 Feb 1966 (H132) EGW].

Jubula pennsylvanica (Steph.) Evans [**Baltimore Co.:** ****Camp Alcoa, on soil in a woods along the Gunpowder River, 5 Apr 1964 (H388) HR;

34. LEJEUNEACEAE [Jungermanniiidae, Jungermanniopsida] *Cololejeunea biddlecomiae* (Austin) Evans [**Baltimore Co.:** ****Padonia Road about 200 feet from May's Chapel Road, on a Wissahickon schist boulder, in a woods of Tulip-trees, White Ash, *Magnolia tripetala* and *Caltha palustris*, associated with *Platygyrium repens*, 26 Apr 1966 (H186) EGW; ****Paper Mill Road near Loch Raven Reservoir, on rocks and boulders in a woods, 16 Sep 1966 (H187) EGW; **on Wissahickon schist ledges and granitic boulders of the road bed, 4 Aug 1968 (H189) EGW; ****Windsor Mill Road, on the farm of R. Lucke, on bark, in a swampy woods of Red Maple, White Oak, Swamp White Oak and Tupelo, 3 Feb 1968 (H188) EGW; ****Soldiers' Delight, along Chimney Branch stream overlooking the *Gentiana crinita* area, on twigs in a woods of White Oak, Chestnut Oak, Nine-bark, Mt. Laurel and American Beech, growing intermixed with *Schwetschkeopsis denticulata* and *Clasmatodon parvulus*, 7 Jan 1973 (H191) EGW; ****Loch Raven Dam Road about ½ mile from Cromwell Bridge Road, in shady woods beside the lower dam, common on granitic and quartz boulders and ledges, 4 Mar 1975 (H193) (H194) EGW]. [**Carroll Co.:** ****Near Little Pipe Creek along the Western Md. Railroad on Md. Route #75, growing on a boulder of schist, 27 Oct 1964 (H184) EGF; ****Kay's Mill Road near the bridge, on the vertical face of a Wissahickon schist ledge, growing with *Hedwigia ciliata* and *Frullania asagrayana*, 15 Mar 1969 (H190) EGW] [**Harford Co.:** ****Bottom Road near the Little Gunpowder Falls, on ledges and boulders of Wissahickon schist along a stream near the Geological Survey Station, 1 Mar 1966 (H185) EGW; ****Rock Run Sanctuary at Susquehanna State Park, on rocks in a woods of Black Walnut, Sassafras and Black Locust, growing with *Homomallium adnatum* and *Fissidens bryoides*, 25 May 1974 (H192) EGW]

Lejeunea cavifolia (Ehrhart) Lindberg [**Frederick Co.:** ****Cunningham Falls State Park, growing by the falls on a thin layer of soil covering a rock, 19 Sep 1973 (H343) R.S. Farley III].

Leucolejeunea clypeata (Schwein.) Evans [**Worcester Co.:** ****Pocomoke Swamp at Whaleysville, in a swampy woods, on bark of *Acer rubrum*, 6 feet up the trunk, growing with *Orthotrichum ohioense*, *Frullania eboracensis* and *Platygyrium repens*, 9 May 1965 (H339) EGW; ****Milburn Landing, on bark at the base of *Quercus alba*, 29 Apr 1973 (H340) EGW].

38. **AYTONIACEAE** [Marchantiidae, Marchantiopsida] *Asterella tenella* (L.) P.de Beauvois [**Harford Co.:** ****Edgewood Arsenal at Skipper Point Road, on soil in an open field along the road, 21 Sep 1964 (H344) EGW]

Mannia fragrans (Balbis) Frye & Clark [**Baltimore Co.:** ****St. Thomas Church at Garrison Forest Road and St. Thomas Lane, growing on the stone wall surrounding the church, associated with *Mnium cuspidatum* and *Leskea gracilescens*, 18 May 1959 (H382) HR].

Reboulia hemisphaerica (L.) Raddi [**Baltimore Co.:** ****Lake Roland, Robert E. Lee Park, on soil and mortar of a stone wall near the parking area, 11 Apr 1965 (H287) EGW; **growing on soil in bare spaces among *Danthonia spicata*, also on soil in crevices of a stone wall, 27 Jul 1968 (H295) EGW; **on soil among grasses on a bank along the roadside, 19 May 1967 (H290) EGW; ****Paper Mill Road near the Loch Raven Bridge, growing on ledges of Wissahickon schist, 21 Mar 1966 (H288) HR; **on soil on the bank of Loch Raven Reservoir, among bases of grasses and herbs, 4 Aug 1968 (H296) EGW; ****Soldiers' Delight, Dolfield Road, on soil of a roadbank near a covered spring, 25 Feb 1968 (H291) EGW; **on soil of a woodland roadbank, 2 Mar 1968 (H292) (H293) EGW; ****St. Thomas Church in Owings Mills, on rock of a stone wall around the church, 26 Jul 1968 (H294) EGW; ****Greenspring Valley Road, on soil between the cracks of a flagstone walk of W. G. Fastie, 5 May 1973 (H297) EGW] [**Carroll Co.:** ****In a greenhouse at "Carroll Gardens" in Westminster, growing in pots of various plants in the greenhouse, 28 Apr 1966 (H289) EGW].

39. **CONOCEPHALACEAE** [Marchantiidae, Marchantiopsida] *Conocephalum conicum* (L.) Lindberg [**Baltimore Co.:** ****Upper Melinda on Bonita Avenue, on rocks above the water's surface in a small brook in a woods, 6 Sep 1959 (H195) EGW; **in a woods above a small bridge over Councilman's Run, on thin soil on Wissahickon schist ledges along a brook, growing with *Thuidium delacatulum*, 2 Mar 1968 (H200) EGW; ****Ridgeway Ave., on the property of M. Gover, on soil in a woods of oaks, hickories,

Red Maples and Tulip-trees, growing with *Pellia epiphylla* and *Scapania nemorosa*, 8 Aug 1970 (H201) EGW; ****Greenspring Ave. in the woods of E. R. Wilkins, on swampy soil under Red Maple and Black Gum, 28 Feb 1985 (H202) EGW] [**Frederick Co.:** ****Bentz Pond in Thurmont, on soil at the edge of the overflow from the pond, 27 Jun 1963 (H196) EGW] [**Harford Co.:** ****Patterson Mill Road, on soil of the bank along Winter Run in a woods of American Beech, Mockernut Hickory, Red Maple, Sycamore and Witch Hazel, growing with *Pellia epiphylla* and *Mnium affine*, 1 Nov 1967 (H199) EGW] [**Howard Co.:** ****Patapsco State Park, on nearly vertical rock face ledges near spray from a small rill along the Nature Trail, 6 Jul 1963 (H197) (H198) EGW].

40. LUNULARIACEAE [Marchantiidae, Marchantiopsida] *Lunularia cruciata* (L.) Lindberg [**Baltimore Co.:** ****“The Century Greenhouse” (torn down in 1965) located at Reisterstown Road and Roaches Lane in Reisterstown, growing on moist soil under the greenhouse benches, 1 Jun 1959 (H315) (H316) EGW; ****Plant Nursery of Mr. A. Meyes, growing on soil in pots of *Cryptomeria japonica*, 19 Apr 1966 (H317) EGW; ****McGuire’s Greenhouse at Reisterstown Road and the Baltimore Beltway, growing on the cement walls inside of the greenhouse, 2 Mar 1968 (H318) (H319) (H320) (H321) (H322) (H323) (H324) EGW].

42. MARCHANTIACEAE [Marchantiidae, Marchantiopsida] *Marchantia polymorpha* Linnaeus [**Baltimore Co.:** ****“The Century Greenhouse” (torn down in 1965) located at Reisterstown Road and Roaches Lane in Reisterstown, growing on moist soil under the greenhouse benches, 1 Jun 1959 (H373) EGW; ****Greenhouse of Elizabeth Francis on Satyr Hill Road, growing in potting soil in rose flats, 17 Apr 1966 (H376) (H377) (H378) EGW; ****Worthington Hill Drive in Glyndon, along the brick walk in front of the house of H. T. Reese, 30 May 1966 (H379) EGW].

45. RICCIACEAE [Marchantiidae, Marchantiopsida] *Riccia beyricheana* Lehmann [**Baltimore Co.:** ****Soldiers’ Delight, Dolfield Road in the area near a large drain pipe, very abundant on open soil pans between clumps of *Andropogon* sp., 11 Oct 1963 (H281) (H282) MF; **on bare places on the serpentine barren among *Andropogon scoparius* and *Aristida dichotoma*, 2 Oct 1965 (H283) EGW].

Riccia bifurca Hoffmann [**Baltimore Co.:** ****Soldiers’ Delight, Dolfield Road, on bare and rocky soil in the serpentine barren, associated with *Andropogon scoparius* and *Aristida dichotoma*, 22 Nov 1962 (H307) (H308) EGW (there is a “?” beside the name *R. bifurca*

on the packet); ****Kendig's Mill Road in Owings Mills, on soil in a swampy Red Maple woods where cows have trampled the soil, 26 Oct 1963 (H309) HR].

Riccia cavernosa Hoffmann [Baltimore Co.: ****Timber Grove Road near Delight, along a new pipeline growing on bare newly disturbed clay soil, 23 Oct 1960 (H310) MF].

Riccia fluitans Linnaeus [Baltimore Co.: ****Pretty Boy Reservoir at Possum Cove near Bollingers Road, on mud flats from receded water, associated with *Micromitrium austinii*, *Micromitrium megalosporum* and *Physcomitrium immersum*, 21 Nov 1965 (H271) (H272) HR] [Harford Co.: ****Schakleford's Tropical Fish Farm on old Route 23 north of Bel Air and about 4 miles east of Forrest Hill, growing in an aquarium, 14 Nov 1966 (H273) (H274) (H275) (H276) (H277) (H278) EGW; ****Bel Air, in a guppy aquarium from an aquarium store, 13 Jan 1970 (H279) EGW] [Montgomery Co.: ****Seneca Creek State Park, Coppers Area, along a wooded stream, 16 Oct 1971 (H280) EGW].

Riccia frostii Austin [Baltimore Co.: ****Pretty Boy Reservoir at Possum Cove near Bollingers Road, on mud flats from receded water, associated with *Micromitrium austinii*, *Micromitrium megalosporum* and *Riccia fluitans*, 21 Nov 1965 (H311) HR].

Riccia hirta (Austin) Underwood [Baltimore Co.: ****Soldiers' Delight, Dolfield Road, in open patches on sparse serpentine soil at the bases of *Andropogon scoparius* and the nut rush, *Scleria pauciflora*, 11 Jun 1963 (H312) HR].

Riccia membranacea Gott. & Lindenb. [Carroll Co.: ****Under a wooden railroad bridge, 200 yards northwest from Glenn Falls Road (½ mile north of Westminster Road), on moist clay mud under a wooden railroad bridge, 12 Nov 1961 (H306) PLR]

Riccia sullivantii Austin [Baltimore Co.: ****Timber Grove Road near Delight, growing on bare clay soil of newly disturbed area along a pipeline, 23 Oct 1960 (H313) MF].

Ricciocarpos natans (L.) Corda [Baltimore Co.: ****Loch Raven Reservoir near Paper Mill Road, growing on moist soil from a receded lake, under Red Maple, 16 Sep 1964 (H298) (H300) PLR; **on a decorticate rotting Chestnut branch, 3 inches in diameter, lying on soil in a woods near the high bridge, 16 Sep 1964 (H299) EGW; **on a muddy shore left by a receding lake, under *Salix nigra* var. *falcata*, associated with *Eragrostis hypnoides*, 13 Oct 1964 (H301) (H302) EGW; **on soil about 3 feet above the water level,

among grasses, sedges and smartweeds, 4 Nov 1965 (H303) EGW; ****Lone Hickory Farm in Owings Mills, growing in a lily and goldfish pool, 24 Nov 1974 (H304) EGW; ****Liberty Reservoir near Westminster Pike, about 50 yards from a large bridge over the reservoir, floating in shallow water in a small inlet formed by embankments of new and old macadam roads, growing with *Riccia fluitans* and *Lemma minor*, 8 May 1975 (H305) EGW].

Index I. Hornworts (Species and Page Number)**ANTHOCEROTACEAE**

Anthoceros crispulus (Mont.) Douin, page 3

Anthoceros laevis Linnaeus, page 3

Anthoceros punctatus Linnaeus, page 3

Notothylas orbicularis (Schwein) Sullivant, page 3

Index II. Mosses (Species and Page Number)

1. SPHAGNACEAE [Sphagnales]

- Sphagnum capillifolium* (Ehrhart) Hedwig, page 4
Sphagnum capillifolium var. *tenellum* (Schimper) Crum, page 4
Sphagnum compactum de Candolle ex Lamarck & de Candolle, page 4
Sphagnum fimbriatum Wilson ex Wilson & J. D. Hooker, page 4
Sphagnum girgensohnii Russell, page 4
Sphagnum imbricatum Hornschuch ex Russell, page 4
Sphagnum palustre Linnaeus, page 5
Sphagnum quinquefarium (Lindberg ex Braithwaite) Warnstorff, page 5
Sphagnum recurvum Palisot de Beauvois, page 5
Sphagnum subsecundum Nees ex Sturm, page 5

4. ANDREAEACEAE [Andreaeales]

- Andreaea rothii* Weber & Mohr, page 5

5. TETRAPHIDACEAE [Tetraphidales]

- Tetraphis pellucida* Hedwig, page 5

6. POLYTRICHACEAE [Polytrichales]

- Atrichum angustatum* (Bridel) Bruch, Schimper, & Gumbel, page 6
Atrichum crispum (James) Sullivant, page 6
Atrichum undulatum (Hedwig) Palisot de Beauvois, page 7
Pogonatum pensilvanicum (Hedwig) Palisot de Beauvois, page 7
Polytrichum commune Hedwig, page 7
Polytrichum commune var. *perigoniale* (Michaux) Hampe, page 8
Polytrichum juniperinum Hedwig, page 8
Polytrichum ohioense Renauld & Cardot, page 8

7. BUXBAUMIACEAE [Buxbaumiales]

- Buxbaumia aphylla* Hedwig, page 9

8. FUNARIACEAE [Funariales]

- Aphanorrhagma serratum* (W. J. Hooker & Wilson ex Drummond) Sullivant, page 9
Funaria flavicans Michaux, page 9

- Funaria hygrometrica* Hedwig, page 9
Physcomitrium immersum Sullivant, page 10
Physcomitrium pyriforme (Hedwig) Hampe, page 10

11. **EPHEMERACEAE** [Funariales]

- Ephemerum cohaerens* (Hedwig) Hampe, page 11
Ephemerum crassinervium (Schwaegrichen) Hampe, page 11
Ephemerum serratum (Hedwig) Hampe, page 11
Ephemerum sinulosum Bruch & Schimper ex Schimper, page 11
Micromitrium austinii Austin, page 11
Micromitrium megalosporum Austin, page 11

16. **DIPHYSICIACEAE** [Diphysciales]

- Diphyscium foliosum* (Hedwig) Mohr, page 11

17. **POTTIACEAE** [Pottiales]

- Acaulon muticum* var. *rufescens* (Jaeger) Crum, page 12
Astomum muhlenbergianum (Swartz) Grout, page 12
Barbula fallax Hedwig, page 12
Barbula unguiculata Hedwig, page 13
Phascum cuspidatum Hedwig, page 13
Tortella humilis (Hedwig) Jennings, page 13
Tortula muralis Hedwig, page 13
Tortula pagorum (Milde) De Notaris, page 14
Tortula papillosa Wilson ex Spruce, page 15
Trichostomum tenuirostre (Hooker & Taylor) Lindberg, page 15
Weissia controversa Hedwig, page 15

18. **CALYMPERACEAE** [Pottiales]

- Syrrhopodon texanus* Sullivant, page 16

20. **DICRANACEAE** [Dicranales]

- Dicranella heteromalla* (Hedwig) Schimper, page 16
Dicranella rufescens (Withering) Schimper, page 17
Dicranella varia (Hedwig) Schimper, page 17
Dicranodontium denudatum (Bridel) E. G. Britton ex Williams, page 17

- Dicranum condensatum* Hedwig, page 17
Dicranum flagellare Hedwig, page 17
Dicranum fulvum Hooker, page 18
Dicranum fuscescens Turner, page 18
Dicranum montanum Hedwig, page 18
Dicranum scoparium Hedwig, page 19
Dicranum viride (Sullivant & Lesquereux) Lindberg, page 19

21. **LEUCOBRYACEAE** [Dicranales]

- Leucobryum albidum* (Bridel) Lindberg, page 20
Leucobryum glaucum (Hedwig) Schimper, page 20

22. **RHABDOWEISACEAE** [Dicranales]

- Rhabdoweisia crispata* (Withering) Lindberg, page 21

23. **DITRICHACEAE** [Dicranales]

- Ceratodon purpureus* (Hedwig) Bridel, page 21
Ditrichum lineare (Schwaegrichen) Lindberg, page 22
Ditrichum pallidum (Hedwig) Hampe, page 22
Ditrichum pusillum (Hedwig) Hampe, page 22
Pleuridium subulatum (Hedwig) Rabenhorst, page 22

24. **ARCHIDIACEAE** [Dicranales]

- Archidium donnellii* Austin, page 23

25. **BRUCHIACEAE** [Dicranales]

- Trematodon ambiguus* (Hedwig) Hornschuch, page 23
Trematodon longicollis Michaux, page 23

27. **FISSIDENTACEAE** [Dicranales]

- Fissidens bryoides* Hedwig, page 23
Fissidens bushii (Cardot & Thériot) Cardot & Thériot, page 24
Fissidens cristatus Wilson ex Mitten, page 24
Fissidens exilis Hedwig, page 24
Fissidens osmundioides Hedwig, page 25
Fissidens subbasilaris Hedwig, page 25

Fissidens taxifolius Hedwig, page 25

30. **PTYCHOMITRIACEAE** [Grimmiales]

Ptychomitrium incurvum (Schwaegrichen) Spruce, page 26

31. **GRIMMIACEAE** [Grimmiales]

Grimmia apocarpa Hedwig, page 26

Grimmia laevigata (Bridel) Bridel, page 26

Grimmia pilifera Palisot de Beauvois, page 27

Racomitrium aciculare (Hedwig) Bridel, page 27

Racomitrium heterostichum Hedwig, page 27

35. **ORTHOTRICHACEAE** [Orthotrichales]

Orthotrichum anomalum Hedwig, page 27

Orthotrichum obtusifolium Bridel, page 27

Orthotrichum ohioense Sullivant & Lesquereux *ex* Austin, page 27

Orthotrichum pumilum Swartz, page 27

Orthotrichum pusillum Mitten, page 28

Orthotrichum sordidum Sullivant & Lesquereux *ex* Austin, page 28

Orthotrichum stellatum Bridel, page 28

Orthotrichum strangulatum Palisot de Beauvois, page 28

Ulota coarctata (Palisot de Beauvois) Hammerschmid, page 29

Ulota crispa (Hedwig) Bridel, page 29

Ulota hutchinsiae (Sm.) Hammerschmid, page 29

37. **HEDWIGIACEAE** [Hedwigiales]

Hedwigia ciliata (Hedwig) Palisot de Beauvois, page 29

38. **BRYACEAE** [Bryales]

Bryum argenteum Hedwig, page 30

Bryum caespiticium Hedwig, page 30

Bryum lisae var. *cuspidatum* (Bruch, Schimper, & Gumbel) Margadant, page 31

Leptobryum pyriforme (Hedwig) Wilson, page 31

Pohlia annotina var. *decipiens* Loeske, page 31

Pohlia cruda (Hedwig) Lindberg, page 31

Pohlia nutans (Hedwig) Lindberg, page 31

Pohlia wahlenbergii (Weber & Mohr) Andrews, page 31

Rhodobryum roseum (Hedwig) Limpricht, page 31

39. MNIACEAE [Bryales]

Mnium affine Bland. ex Funck, page 32

Mnium affine var. *rugicum* (Laurer) Bruch, Schimper, & GümbeL, page 32

Mnium cuspidatum Hedwig, page 33

Mnium hornum Hedwig, page 33

Mnium medium Bruch, Schimper, & GümbeL, page 34

Mnium punctatum Hedwig, page 34

Mnium punctatum var. *elatum* Schimper, page 34

42. BARTRAMIACEAE [Bryales]

Bartramia pomiformis Hedwig, page 34

Philonotis fontana (Hedwig) Bridel, page 35

Philonotis marchica (Hedwig) Bridel, page 35

Philonotis uncinata (Schwaegrichen) Bridel, page 35

43. AULACOMNIACEAE [Bryales]

Aulacomnium heterostichum (Hedwig) Bruch, Schimper, & GümbeL, page 35

Aulacomnium palustre (Hedwig) Schwaegrichen, page 36

47. CLIMACIACEAE [Leucodontales]

Climacium americanum Bridel, page 37

Climacium dendroides (Hedwig) Weber & Mohr, page 37

48. NECKERACEAE [Leucodontales]

Thamnobryum alleghaniense (C. Müller) Nieuwland, page 37

51. LEUCODONTACEAE [Leucodontales]

Antitrichia curtipendula (Hedwig) Bridel, page 37

Leucodon julaceus (Hedwig) Sullivant, page 37

54. LESKEACEAE [Hypnales]

Anomodon attenuatus (Hedwig) Hübener, page 37

Anomodon minor (Hedwig) Fürnröhr, page 38

- Anomodon rostratus* (Hedwig) Schimper, page 39
Bryohaplocladium microphyllum (Hedwig) Watson & Iwatsuki, page 39
Bryohaplocladium virginianum (Bridel) Watson & Iwatsuki, page 40
Haplohymenium triste (Ces ex De Notaris) Kindberg, page 40
Helodium paludosum (Sullivant) Austin, page 41
Leskea gracilescens Hedwig, page 41
Leskea obscura Hedwig, page 42
Leskea polycarpa Hedwig, page 42
Lindbergia brachyptera (Mitten) Kindberg, page 42

55. **FONTINALACEAE** [Hypnales]

- Dichelym capillaceum* (Withering) Myrin, page 42
Fontinalis antipyretica Hedwig, page 43
Fontinalis dalecarlica Bruch, Schimper & GümbeL, page 43
Fontinalis hypnoides C. J. Hartman, page 43
Fontinalis novae-angliae Sullivant, page 43

56. **THUIDIACEAE** [Hypnales]

- Thuidium delicatulum* (Hedwig), Bruch, Schimper & GümbeL, page 43
Thuidium minutulum (Hedwig) Bruch, Schimper, & GümbeL, page 44
Thuidium scitum (Palisot de Beauvois) Austin, page 44

58. **THELIACEAE** [Hypnales]

- Thelia asprella* Sullivant, page 44
Thelia hirtella (Hedwig) Sullivant, page 45

60. **FABRONIACEAE** [Hypnales]

- Anacamptodon splachnoides* (Froel.ex Bridel) Bridel, page 45
Schwetschkeopsis fabronia (Schwaegrichen) Brotherus, page 46

61. **AMBLYSTEGIACEAE** [Hypnales]

- Amblystegium fluviatile* (Hedwig) Bruch, Schimper, & GümbeL, page 46
Amblystegium riparium (Hedwig) Bruch, Schimper, & GümbeL, page 46
Amblystegium serpens (Hedwig) Bruch, Schimper, & GümbeL, page 47
Amblystegium tenax (Hedwig) Jensen, page 47

- Amblystegium trichopodium* (Schultz) Hartman, page 48
Amblystegium varium (Hedwig) Lindberg, page 48
Calliergonella cuspidata (Hedwig) Loeske, page 49
Campylium chrysophyllum (Bridel) J. Lange, page 49
Campylium chrysophyllum var. *brevifolium* (Renauld & Cardot) Grout, page 50
Campylium hispidulum (Bridel) Mitten, page 50
Hygrohypnum eugyrium (Bruch, Schimper, & Gümberl) Loeske, page 50
Platylomella lescurii (Sullivant in Gray) Andrews, page 50

62. BRACHYTHECIACEAE [Hypnales]

- Brachythecium oxycladon* (Bridel) Jaeger & Sauerbeck, page 50
Brachythecium plumosum (Hedwig) Bruch, Schimper & Gümberl, page 51
Brachythecium rivulare Bruch, Schimper & Gümberl, page 51
Brachythecium rutabulum (Hedwig) Bruch, Schimper & Gümberl, page 51
Brachythecium salebrosum (Weber & Mohr) Bruch, Schimper, & Gümberl, page 51
Bryhnia graminicolor (Bridel) Grout, page 52
Bryhnia novae-angliae (Sullivant & Lesquereux *ex* Sullivant) Grout, page 52
Bryoandersonia illecebra (Hedwig) Robinson, page 53
Eurhynchium hians (Hedwig) Sande-Lacoste, page 53
Eurhynchium pulchellum (Hedwig) Jennings, page 53
Eurhynchium riparioides (Hedwig) Richard, page 54
Stereocleus serrulatum (Hedwig) Robinson, page 54

64. HYPNACEAE [Hypnales]

- Callicladium haldanianum* (Greville) Crum, page 56
Ctenidium molluscum (Hedwig) Mitten, page 56
Herzogiella striatella (Bridel) Iwatsuki, page 57
Herzogiella turfacea (Lindberg) Iwatsuki, page 57
Homomallium adnatum (Hedwig) Brotherus, page 57
Hypnum cupressiforme Hedwig, page 57
Hypnum curvifolium Hedwig, page 57
Hypnum fertile Sendtner, page 57
Hypnum imponens Hedwig, page 58
Hypnum lindbergii Mitten, page 58
Hypnum pallescens (Hedwig) Palisot de Beauvois, page 59
Isopterygium elegans (Bridel) Lindberg, page 59

Isopterygium tenerum (Swartz) Mitten, page **59**

Platygyrium repens (Bridel) Bruch, Schimper, & GümbeL, page **60**

Taxiphyllum deplanatum (Bruch & Schimper *ex* Sullivan) Fleischer, page **62**

Taxiphyllum taxirameum (Mitten) Fleischer, page **62**

65. RHYTIDIACEAE [Hypnales]

Rhytidium rugosum (Hedwig) Kindberg, page **62**

66. HYLOCOMIACEAE [Hypnales]

Pleurozium schreberi (Bridel) Mitten, page **62**

Rhytidiadelphus triquetrus (Hedw.) Warnstorff, page **62**

67. ENTODONTACEAE [Hypnales]

Entodon cladorrhizans (Hedwig) C. Müller, page **63**

Entodon seductrix (Hedwig) C. Müller, page **63**

68. PLAGIOTHECIACEAE [Hypnales]

Isopterygiopsis muelleriana (Schimper) Iwatsuki, page **64**

Plagiothecium cavifolium (Bridel) Iwatsuki, page **64**

Plagiothecium denticulatum (Hedwig) Bruch, Schimper & GümbeL, page **64**

Plagiothecium laetum Bruch, Schimper & GümbeL, page **65**

71. SEMATOPHYLLACEAE [Hookeriales]

Brotherella recurvans (Michaux) Fleischer, page **65**

Brotherella tenuirostris (Bruch & Schimper *ex* Sullivan) Fleischer, page **65**

Sematophyllum adnatum (Michaux) E. G. Britton, page **65**

Sematophyllum demissum (Wilson) Mitten, page **66**

Sematophyllum marylandicum (C. Müller) E. G. Britton, page **66**

Index III. Hepatics (Species and Page Number)**3. FOSSOMBRONIACEAE** [Metzgeriidae, Jungermanniopsida]*Fossombronia foveolata* Lindberg, page **67***Fossombronia wondraczekii* (Corda) Dumortier *ex* Lindberg, page **67****4. PELLIACEAE** [Metzgeriidae, Jungermanniopsida]*Pellia epiphylla* (L.) Corda, page **67***Pellia neesiana* (Gottsche) Limpricht, page **67****5. PALLAVICINIACEAE** [Metzgeriidae, Jungermanniopsida]*Pallavicinia lyellii* (Hooker) Carruth., page **67****8. ANEURACEAE** [Metzgeriidae, Jungermanniopsida]*Riccardia multifida* (L.) S. Gray, page **68****10. PSEUDOLEPICOLEACEAE** [Jungermanniidae, Jungermanniopsida]*Blepharostoma trichophyllum* (L.) Dumortier, page **68****12. PTILIDIACEAE** [Jungermanniidae, Jungermanniopsida]*Ptilidium pulcherrimum* (G. Web.) Hampe, page **69****13. TRICHOCOLEACEAE** [Jungermanniidae, Jungermanniopsida]*Trichocolea tomentella* (Ehrhart) Dumortier, page **69****14. LEPIDOZIACEAE** [Jungermanniidae, Jungermanniopsida]*Bazzania trilobata* (L.) S. Gray, page **69***Kurzia sylvatica* (Evans) Grolle, page **70***Lepidozia reptans* (L.) Dumortier, page **70****15. CALYPOGEIACEAE** [Jungermanniidae, Jungermanniopsida]*Calypogeia fissa* (L.) Raddi, page **70***Calypogeia trichomanis* (L.) Corda, page **70**

17. **CEPHALOZIACEAE** [Jungermanniidae, Jungermanniopsida]
Cephalozia catenulata (Hübener) Lindberg, page **71**
Cephalozia lunulifolia (Dumortier) Dumortier, page **71**
Nowellia curvifolia (Dickson) Mitten, page **71**
18. **ADELANTHACEAE** [Jungermanniidae, Jungermanniopsida]
Odontoschisma denudatum (Nees ex Mart.) Dumortier, page **72**
Odontoschisma prostratum (Swartz) Trev., page **72**
19. **CEPHALOZIELLACEAE** [Jungermanniidae, Jungermanniopsida]
Cephaloziella hampeana (Nees) Schiffner *ex* Loeske, page **73**
21. **LOPHOCOLEACEAE** [Jungermanniidae, Jungermanniopsida]
Chiloscyphus polyanthos (L.) Corda, page **73**
Lophocolea bidentata (L.) Dumortier, page **73**
Lophocolea cuspidata (Nees) Limpricht, page **73**
Lophocolea heterophylla (Schrader) Dumortier, page **73**
Lophocolea minor Nees, page **75**
23. **PLAGIOCHILACEAE** [Jungermanniidae, Jungermanniopsida]
Plagiochila porelloides (Torrey ex Nees) Lindenb., page **75**
27. **JUNGERMANNIACEAE** [Jungermanniidae, Jungermanniopsida]
Mylia anomala (L.) S. Gray, page **76**
28. **GYMNOMITRIACEAE** [Jungermanniidae, Jungermanniopsida]
Marsupella sphaelata (Gieseke ex Lindenb.) Dumortier, page **76**
29. **SCAPANIACEAE** [Jungermanniidae, Jungermanniopsida]
Diplophyllum apiculatum (Evans) Steph., page **76**
Scapania nemorosa (L.) Dumortier, page **77**
Scapania undulata (L.) Dumortier, page **78**

31. **RADULACEAE** [Jungermanniidae, Jungermanniopsida]
Radula complanata (L.) Dumortier, page **78**
32. **PORELLACEAE** [Jungermanniidae, Jungermanniopsida]
Porella pinnata Linnaeus, page **78**
Porella platyphylla (L.) Pfeiff., page **78**
Porella platyphylloidea (Schwein.) Lindberg, page **78**
33. **JUBULACEAE** [Jungermanniidae, Jungermanniopsida]
Frullania asagrayana Montagne, page **78**
Frullania eboracensis Gottsche, page **79**
Jubula pennsylvanica (Steph.) Evans, page **80**
34. **LEJEUNEACEAE** [Jungermanniidae, Jungermanniopsida]
Cololejeunea biddlecomiae (Austin) Evans, page **80**
Lejeunea cavifolia (Ehrhart) Lindberg, page **80**
Leucolejeunea clypeata (Schwein.) Evans, page **81**
38. **AYTONIACEAE** [Marchantiidae, Marchantiopsida]
Asterella tenella (L.) P.de Beauvois, page **81**
Mannia fragrans (Balbis) Frye & Clark, page **81**
Reboulia hemisphaerica (L.) Raddi, page **81**
39. **CONOCEPHALACEAE** [Marchantiidae, Marchantiopsida]
Conocephalum conicum (L.) Lindberg, page **81**
40. **LUNULARIACEAE** [Marchantiidae, Marchantiopsida]
Lunularia cruciata (L.) Lindberg, page **82**
42. **MARCHANTIACEAE** [Marchantiidae, Marchantiopsida]
Marchantia polymorpha Linnaeus, page **82**

45. RICCIACEAE [Marchantiidae, Marchantiopsida]

Riccia beyricheana Lehmann, page **82**

Riccia bifurca Hoffmann, page **82**

Riccia cavernosa Hoffmann, page **83**

Riccia fluitans Linnaeus, page **83**

Riccia frostii Austin, page **83**

Riccia hirta (Austin) Underwood, page **83**

Riccia membranacea Gott. & Lindenb., page **83**

Riccia sullivantii Austin, page **83**

Ricciocarpos natans (L.) Corda, page **83**

<i>Acaulon muticum</i> var. <i>rufescens</i>	12	<i>Buxbaumia aphylla</i>	9	FABRONIACEAE	45-46
ADELANTHACEAE	72	BUXBAUMIACEAE	9	<i>Fissidens bryoides</i>	23
AMBLYSTEGIACEAE	46-50	Buxbaumiales	9	<i>Fissidens bushii</i>	24
<i>Amblystegium fluviatile</i>	46	<i>Callicladium haldanianum</i>	56	<i>Fissidens cristatus</i>	24
<i>Amblystegium riparium</i>	46	<i>Calliargonella cuspidata</i>	49	<i>Fissidens exilis</i>	24
<i>Amblystegium serpens</i>	47	CALYMPERACEAE	16	<i>Fissidens osmundioides</i>	25
<i>Amblystegium tenax</i>	47	<i>Calypogeia fissa</i>	70	<i>Fissidens subbasilaris</i>	25
<i>Amblystegium trichopodium</i>	48	<i>Calypogeia trichomanis</i>	70	<i>Fissidens taxifolius</i>	25
<i>Amblystegium varium</i>	48	CALYPOGEIACEAE	70	FISSIDENTACEAE	23-25
<i>Anacamptodon splachnoides</i>	45	<i>Campylium chrysophyllum</i>	49	FONTINALACEAE	42-43
<i>Andreaea rothii</i>	5	<i>C. chrysophyllum</i> var. <i>brevifolium</i>	50	<i>Fontinalis antipyretica</i>	43
ANDREAEACEAE	5	<i>Campylium hispidulum</i>	50	<i>Fontinalis dalecarlica</i>	43
Andreaeales	5	<i>Cephalozia catenulata</i>	71	<i>Fontinalis hypnoides</i>	43
ANEURACEAE	68	<i>Cephalozia lunulifolia</i>	71	<i>Fontinalis novae-angliae</i>	43
<i>Anomodon attenuatus</i>	37	CEPHALOZIACEAE	71	<i>Fossombronina foveolata</i>	67
<i>Anomodon minor</i>	38	<i>Cephaloziella hampeana</i>	73	<i>Fossombronina wondraczekii</i>	67
<i>Anomodon rostratus</i>	39	CEPHALOZIELLACEAE	73	FOSSOMBRONIACEAE	67
<i>Anthoceros crispulus</i>	3	<i>Ceratodon purpureus</i>	21	<i>Frullania asagrayana</i>	78
<i>Anthoceros laevis</i>	3	<i>Chiloscyphus polyanthos</i>	73	<i>Frullania eboracensis</i>	79
<i>Anthoceros punctatus</i>	3	CLIMACIACEAE	37	<i>Funaria flavicans</i>	9
ANTHOCEROTACEAE	3	<i>Climacium americanum</i>	37	<i>Funaria hygrometrica</i>	9
<i>Antitrichia curtipendula</i>	37	<i>Climacium dendroides</i>	37	FUNARIACEAE	9-10
<i>Aphanorhagma serratum</i>	9	<i>Cololejeunea biddlecomiae</i>	80	Funariales	9-11
ARCHIDIACEAE	23	CONOCEPHALACEAE	81	<i>Grimmia apocarpa</i>	26
<i>Archidium donnellii</i>	23	<i>Conocephalum conicum</i>	81	<i>Grimmia laevigata</i>	26
<i>Asterella tenella</i>	81	<i>Ctenidium molluscum</i>	56	<i>Grimmia pilifera</i>	27
<i>Astumum muhlenbergianum</i>	12	<i>Dichelym capillaceum</i>	42	GRIMMIACEAE	26-27
<i>Atrichum angustatum</i>	6	DICRANACEAE	16-19	Grimmiales	26-27
<i>Atrichum crispum</i>	6	Dicranales	16-25	GYMNOMITRIACEAE	76
<i>Atrichum undulatum</i>	7	<i>Dicranella heteromalla</i>	16	<i>Haplocladium</i>	39
AULACOMNIACEAE	35-36	<i>Dicranella rufescens</i>	17	<i>Haplohymenium triste</i>	40
<i>Aulacomnium heterostichum</i>	35	<i>Dicranella varia</i>	17	<i>Hedwigia ciliata</i>	29
<i>Aulacomnium palustre</i>	36	<i>Dicranodontium denudatum</i>	17	HEDWIGIACEAE	29
AYTONIACEAE	81	<i>Dicranum condensatum</i>	17	Hedwigiales	29
<i>Barbula fallax</i>	12	<i>Dicranum flagellare</i>	17	<i>Helodium paludosum</i>	41
<i>Barbula unguiculata</i>	13	<i>Dicranum fulvum</i>	18	Hepatics	67-83
<i>Bartramia pomiformis</i>	34	<i>Dicranum fuscescens</i>	18	<i>Herzogiella striatella</i>	57
BARTRAMIACEAE	34-35	<i>Dicranum montanum</i>	18	<i>Herzogiella turfacea</i>	57
<i>Bazzania trilobata</i>	69	<i>Dicranum scoparium</i>	19	<i>Homomallium adnatum</i>	57
<i>Blepharostoma trichophyllum</i>	68	<i>Dicranum viride</i>	19	Hookeriales	65-66
BRACHYTHECIACEAE	50-54	DIPHYSCIACEAE	11	Hornworts	3-5
<i>Brachythecium oxycladon</i>	50	Diphysciales	11	<i>Hygrohypnum eugyrium</i>	50
<i>Brachythecium plumosum</i>	51	<i>Diphyscium foliosum</i>	11	HYLOCOMIACEAE	62
<i>Brachythecium rivulare</i>	51	<i>Diplophyllum apiculatum</i>	76	HYPNACEAE	56-62
<i>Brachythecium rutabulum</i>	51	DITRICHACEAE	21-22	Hypnales	37-65
<i>Brachythecium salebrosum</i>	51	<i>Ditrichum lineare</i>	22	<i>Hypnum cupressiforme</i>	57
<i>Brotherella recurvans</i>	65	<i>Ditrichum pallidum</i>	22	<i>Hypnum curvifolium</i>	57
<i>Brotherella tenuirostris</i>	65	<i>Ditrichum pusillum</i>	22	<i>Hypnum fertile</i> Sendtner	57
BRUCHIACEAE	23	<i>Entodon cladorrhizans</i>	63	<i>Hypnum imponens</i>	58
BRYACEAE	30-31	<i>Entodon seductrix</i>	63	<i>Hypnum lindbergii</i>	58
Bryales	30-36	ENTODONTACEAE	63	<i>Hypnum pallescens</i>	59
<i>Bryhnia graminicolor</i>	52	EPHEMERACEAE	11	<i>Isopterygiopsis muelleriana</i>	64
<i>Bryhnia novae-angliae</i>	52	<i>Ephemerum cohaerens</i>	11	<i>Isopterygium elegans</i>	59
<i>Bryoandersonia illecebra</i>	53	<i>Ephemerum crassinervium</i>	11	<i>Isopterygium tenerum</i>	59
<i>Bryohaplocladium microphyllum</i>	39	<i>Ephemerum serratum</i>	11	<i>Jubula pennsylvanica</i>	80
<i>Bryohaplocladium virginianum</i>	40	<i>Ephemerum sinulosum</i>	11	JUBULACEAE	78-80
<i>Bryum argenteum</i>	30	<i>Eurhynchium hians</i>	53	JUNGERMANNIACEAE	76
<i>Bryum caespiticium</i>	30	<i>Eurhynchium pulchellum</i>	53	Jungermanniiidae	68-81
<i>Bryum lisae</i> var. <i>cuspidatum</i>	31	<i>Eurhynchium riparioides</i>	54	Jungermanniopsida	67-81

- Kurzia sylvatica* 70
Lejeunea cavifolia 80
 LEJEUNEACEAE 81
Lepidozia reptans 70
 LEPIDOZIACEAE 69-70
Leptobryum pyriforme 31
Leskea gracilescens 41
Leskea obscura 42
Leskea polycarpa 42
 LESKEACEAE 37-42
 LEUCOBRYACEAE 20
Leucobryum albidum 20
Leucobryum glaucum 20
Leucodon julaceus 37
 LEUCODONTACEAE 37
 Leucodontales 37
Leucolejeunea clypeata 81
Lindbergia brachyptera 42
 Liverworts 67-84
Lophocolea bidentata 73
Lophocolea cuspidata 73
Lophocolea heterophylla 73
Lophocolea minor 75
 LOPHOCOLEACEAE 73
Lunularia cruciata 82
 LUNULARIACEAE 82
Mannia fragrans 81
Marchantia polymorpha 82
 MARCHANTIACEAE 82
 Marchantiidae 81-83
 Marchantiopsida 81-83
Marsupella sphacelata 76
 Metzgeriidae 67-68
Micromitrium austinii 11
Micromitrium megalosporum 11
 MNIACEAE 32-34
Mnium affine 32
Mnium affine var. *rugicum* 32
Mnium cuspidatum 33
Mnium hornum 33
Mnium medium 34
Mnium punctatum 34
Mnium punctatum var. *elatum* 34
 Mosses 4-66
Mylia anomala 76
 NECKERACEAE 37
Notothylas orbicularis 3
Nowellia curvifolia 71
Odontoschisma denudatum 72
Odontoschisma prostratum 72
 ORTHOTRICHACEAE 27-29
 Orthotrichales 27-29
Orthotrichum anomalum 27
Orthotrichum obtusifolium 27
Orthotrichum ohioense 27
Orthotrichum pumilum 27
Orthotrichum pusillum 28
Orthotrichum sordidum 28
Orthotrichum stellatum 28
Orthotrichum strangulatum 28
Pallavicinia lyellii 67
 PALLAVICINIACEAE 67
Pellia epiphylla 67
Pellia neesiana 67
 PELLIAACEAE 67
Phascum cuspidatum 13
Philonotis fontana 35
Philonotis marchica 35
Philonotis uncinata 35
Physcomitrium immersum 10
Physcomitrium pyriforme 10
Plagiochila porelloides 75
 PLAGIOCHILACEAE 75
 PLAGIOTHECIACEAE 64-65
Plagiothecium cavifolium 64
Plagiothecium denticulatum 64
Plagiothecium laetum 65
Platygyrium repens 60
Platylomella lescurii 50
Pleuroidium subulatum 22
Pleurozium schreberi 62
Pogonatum pensilvanicum 7
Pohlia annotina var. *decipiens* 31
Pohlia cruda 31
Pohlia nutans 31
Pohlia wahlenbergii 31
 POLYTRICHACEAE 6
 Polytrichales 6-8
Polytrichum commune 7
P. commune var. *perigoniale* 8
Polytrichum juniperinum 8
Polytrichum ohioense 8
Porella pinnata 78
Porella platyphylla 78
Porella platyphylloidea 78
 PORELLACEAE 78
 POTTIACEAE 12-15
 Pottiales 12-16
 PSEUDOLEPICOLEACEAE 68
 PTLIDIACEAE 69
Ptilidium pulcherrimum 69
 PTYCHOMITRIACEAE 26
Ptychomitrium incurvum 26
Racomitrium aciculare 27
Racomitrium heterostichum 27
Radula complanata 78
 RADULACEAE 78
Reboulia hemisphaerica 81
Rhabdoweisia crispata 21
 RHABDOWEISIACEAE 21
Rhodobryum roseum 31
Rhynchostegium 54
 RHYTIDIACEAE 62
Rhytidiadelphus triquetrus 62
Rhytidium rugosum 62
Riccardia multifida 68
Riccia beyricheana 82
Riccia bifurca 82
Riccia cavernosa 83
Riccia fluitans 83
Riccia frostii 83
Riccia hirta 83
Riccia membranacea 83
Riccia sullivantii 83
 RICCIACEAE 82-83
Ricciocarpos natans 83
Scapania nemorosa 77
Scapania undulata 78
 SCAPANIACEAE 76-78
Schwetschkeopsis fabronia 46
Sciaromium 50
 SEMATOPHYLLACEAE 65-66
Sematophyllum adnatum 65
Sematophyllum demissum 66
Sematophyllum marylandicum 66
 SPHAGNACEAE 4-5
 Sphagnales 4-5
Sphagnum capillifolium 4
S. capillifolium var. *tenellum* 4
Sphagnum compactum 4
Sphagnum fimbriatum 4
Sphagnum girgensohnii 4
Sphagnum imbricatum 4
Sphagnum palustre 5
Sphagnum quinquefarium 5
Sphagnum recurvum 5
Sphagnum subsecundum 5
Steerecleus serrulatum 54
Syrrophodon texanus 16
Taxiphyllum deplanatum 62
Taxiphyllum taxirameum 62
 TETRAPHIDACEAE 5
 Tetraphidales 5
Tetraphis pellucida 5
Thamnobryum alleghaniense 37
Thelia asprella 44
Thelia hirtella 45
 THELIACEAE 44-45
 THUIDIACEAE 43-44
Thuidium delicatulum 43
Thuidium minutulum 44
Thuidium scitum 44
Tortella humilis 13
Tortula muralis 13
Tortula pagorum 14
Tortula papillosa 15
Trematodon ambiguus 23
Trematodon longicollis 23
Trichocolea tomentella 69
 TRICHOCOLEACEAE 69
Trichostomum tenuirostre 15
Ulotia coarctata 29
Ulotia crispa 29
Ulotia hutchinsiae 29
Weissia controversa 15