

## Noteworthy Bryophyte Records for North America, 1

Authors: Atwood, John J., Brinda, John C., Budke, Jessica M., Carter, Benjamin E., Cass, Wendy B., et al.

Source: Evansia, 43(2) : 85-92

Published By: The American Bryological and Lichenological Society

URL: <https://doi.org/10.1639/0747-9859-43.2.85>

---

The BioOne Digital Library (<https://bioone.org/>) provides worldwide distribution for more than 580 journals and eBooks from BioOne's community of over 150 nonprofit societies, research institutions, and university presses in the biological, ecological, and environmental sciences. The BioOne Digital Library encompasses the flagship aggregation BioOne Complete (<https://bioone.org/subscribe>), the BioOne Complete Archive (<https://bioone.org/archive>), and the BioOne eBooks program offerings ESA eBook Collection (<https://bioone.org/esa-ebooks>) and CSIRO Publishing BioSelect Collection (<https://bioone.org/csiro-ebooks>).

Your use of this PDF, the BioOne Digital Library, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at [www.bioone.org/terms-of-use](http://www.bioone.org/terms-of-use).

Usage of BioOne Digital Library content is strictly limited to personal, educational, and non-commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

---

BioOne is an innovative nonprofit that sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

## Noteworthy bryophyte records for North America, 1

John J. Atwood (compiler)<sup>1</sup>, John C. Brinda<sup>1</sup>, Jessica M. Budke<sup>2</sup>, Benjamin E. Carter<sup>3</sup>, Wendy B. Cass<sup>4</sup>, Alvin R. Diamond<sup>5</sup>, Curtis J. Hansen<sup>6</sup>, Aspen J. Mazzatta<sup>2</sup>, Scott Schuette<sup>7</sup>, Eric D. Shershen<sup>8</sup>, John F. Townsend<sup>9</sup> and Thomas F. Wieboldt<sup>10</sup>

<sup>1</sup>Missouri Botanical Garden, 4344 Shaw Blvd., St. Louis, MO 63110

<sup>2</sup>University of Tennessee, 569 Dabney Hall, Knoxville, TN 37996

<sup>3</sup>California Department of Fish & Wildlife, 787 North Main St. Suite 220, Bishop, CA 93514

<sup>4</sup>Shenandoah National Park, 3655 US Hwy 211 E. Luray, VA 22835

<sup>5</sup>Troy University, Department of Biological and Environmental Sciences, 213 MSCX, Troy, AL 36082

<sup>6</sup>Auburn University Museum of Natural History, 101 Rouse LSB, Auburn, AL 36849

<sup>7</sup>Western Pennsylvania Conservancy, Pennsylvania Natural Heritage Program, 800 Waterfront Drive, Pittsburgh PA 15222

<sup>8</sup>The Ohio State University, Aronoff Laboratory, 318 W 12th Ave., Columbus, OH 43210

<sup>9</sup>Virginia Department of Conservation and Recreation, Division of Natural Heritage, 600 E. Main St, 24th Floor, Richmond, VA 23219

<sup>10</sup>155 Shady Grove Lane, Newport, VA 24128

**Abstract.** This periodic series expedites the documentation of noteworthy floristic records of bryophytes in North America by offering a collective, succinct way to present the findings. New state liverwort distribution records are reported here for *Anthelia juratzkana* (New Mexico and Utah), *Lophozia excisa* (Virginia) and *Pedinophyllum interruptum* (Missouri). Additional county records of *Jubula hutchinsiae* subsp. *bogotensis* are newly reported for Arkansas. New state moss distribution records are reported here for *Arctoa anderssonii* (Oregon), *Brothera leana* (Arizona), *Campylopodiella stenocarpa* (New Mexico), *Discelium nudum* (West Virginia), *Imbriobryum alpinum* (Arkansas and Missouri), *Merceyopsis cataractae* (Illinois), *Orthodontium pellucens* (New Mexico), *Pleuridium rhynchostegium* (Alabama, Connecticut, Delaware, District of Columbia, Florida, Indiana, Mississippi, New York, Oklahoma and Texas), *Syntrichia virescens* (Virginia) and *Vinealobryum californicum* (Washington). *Didymodon hampei* (United States and Texas) and *Zygodon campylophyllus* (United States and New Mexico) are newly reported for the United States in addition to their states.

**Keywords.** biodiversity, chorological data, collections-based research, liverworts, mosses.

### INTRODUCTION

Field collections and reviews of herbarium specimens of North American bryophytes generate new chorological data that are often significant to floristics, taxonomy and conservation, but go unreported due to the lack of a clear outlet for publishing single discoveries and the time involved in preparing scientific notes for individual records. The intent of this series is to provide a collective outlet for reporting noteworthy occurrences on North American bryophytes in a succinct way. Records that are noteworthy include new country, regional, state and provincial-level distributions, local confirmations of poorly documented taxa as well as taxa known from one or a few historical specimens. Exclusions of taxa from states and provinces based on examined voucher specimens are also accepted.

### HOW TO CONTRIBUTE

Entries must include the name of the taxon, a concise statement about the significance of the report, full specimen citation(s) with georeferenced coordinates and the herbarium acronym(s) where the specimen(s) is/are deposited, a short descriptive justification about the noteworthy record that is not to exceed 150 words, the name(s) and addresses of the contributor(s), acknowledgements, and the literature cited in the text. Compiled taxa will be listed alphabetically. If multiple records are presented for a taxon, the countries and/or states and provinces will be listed alphabetically. All submitted records will be peer-reviewed. The submissions of photographs supporting the specimen(s) are encouraged. Please send contributions electronically to: [bryophytorecords@gmail.com](mailto:bryophytorecords@gmail.com).



**Figure 1.** *Pedinophyllum interruptum* from J.C. Brinda 14730 (MO), Shannon County, Missouri. Photo by John C. Brinda.

### NOTEWORTHY FLORISTIC RECORDS

***Anthelia juratzkana*** (Limpr.) Trevis.

*Significance* – New to New Mexico and Utah.

*Voucher specimens* – **U.S.A. NEW MEXICO: Taos Co.**, Carson National Forest, Wheeler Peak Wilderness, along the Lost Lake Trail #91 just below Horseshoe Lake, 3620.5m, 36.566647°N, 105.405983°W, 15 August 2019, on soil, J.C. Brinda 13809 (MO). **UTAH: Summit Co.**, Uinta-Wasatch-Cache National Forest, High Uintas Wilderness, south end of Amethyst Lake, 3268.1m, 40.748237°N, 110.757890°W, 4 August 2025, on soil over rock, J.C. Brinda 19016 (MO).

*Notes* – The genus and species are new to both New Mexico and Utah (cf. Jessup 2019). Although the species is to be expected at high elevations throughout the western United States, it is perhaps overlooked due to its small size and peculiar habit. **Contributor:** John C. Brinda

***Arctoa anderssonii*** Wich.

*Significance* – New to Oregon.

*Voucher specimen* – **U.S.A. OREGON: Hood River Co.**, Mount Hood National Forest, Mount Hood Wilderness, along the Cooper Spur Trail #600B, near the top of Cooper Spur ridge, 2585.1m, 45.376339°N, 121.676941°W, 18 August 2014, in crevice of andesite, J.C. Brinda 6488 (MO-6898765).

*Notes* – This species was reported incidentally as a molecular voucher in a study of the Rhabdoweisiaceae (Fedosov et al. 2020). Since it is the first record of the species from the contiguous United States, the complete specimen information is provided here. The Mount Hood area is known to harbor other species that are persisting at the southern limits of their range. **Contributor:** John C. Brinda

***Brothera leana*** (Sull.) Müll. Hal.

*Significance* – New to Arizona.

*Voucher specimen* – **U.S.A. ARIZONA: Cochise Co.**, Coronado National Forest, Sierra Vista Ranger District, Carr Canyon, Huachuca Mts., 2133.6m, 31.428869°N, 110.290428°W, 12 September 1957, on rotten wood, *L.N. Goodding* 7952 (MO-3365203, det. J.C. Brinda).

*Notes* – Recently reported as new to New Mexico (Frahm 2007, Kleinman et al. 2011) this record places the species even further west into Arizona. The specimen was originally determined as *Dicranum montanum* Hedw. but has the characteristic brood branches of *Brothera*. The MO specimen also bears numbers from herb. MacFadden (22747) and herb. Haring (10782) and duplicates may exist in other herbaria under these numbers. **Contributor:** John C. Brinda

***Campylopodidiella stenocarpa*** (Wilson) P. Müll. & J.-P. Frahm

*Significance* – New to New Mexico.

*Voucher specimen* – **U.S.A. NEW MEXICO: Otero Co.**, Lincoln National Forest, Sacramento Ranger District, Cridebring Canyon, southern Sacramento Mountains, 2198.0m, 32.798602°N, 105.583935°W, 24 March 2010, on rotten wood, *J.C. Brinda* 2582 (MO, ver. B. Allen).

*Notes* – Apparently only the second collection north of Mexico (Frahm 2007). This specimen was collected during the 15th SO BE FREE foray (Allred 2011) and is the basis of the report in Allred et al. (2024). The determination was confirmed by Bruce Allen. **Contributor:** John C. Brinda

***Didymodon hampei*** R.H. Zander

*Significance* – New to Texas and the United States.

*Voucher specimen* – **U.S.A. TEXAS: Briscoe Co.**, Caprock Canyons State Park and Trailway, along Upper Canyon Trail and North Prong Little Red River, 814.5m, 34.463267°N, 101.109168°W, 19 July 2016, on sandstone, *J.C. Brinda* 8738 (MO, ver. R.H. Zander).

*Notes* – Also known as *Gyroweisia obtusifolia* Broth. (Zander 1994), this is currently the only collection known from north of Mexico. The long escarpment that forms the eastern edge of the Llano Estacado offers abundant canyons that provide interesting habitats for bryophytes. Further surveys in the region may yield additional discoveries. The determination was confirmed by Richard Zander. **Contributor:** John C. Brinda

***Discelium nudum*** (Dicks.) Brid.

*Significance* – New for West Virginia.

*Voucher specimens* – **U.S.A. WEST VIRGINIA: Mason Co.**, on silt banks of small stream flowing in Ohio River, 600ft, 39.0272223°N, 82.0202778°W, 30 October 1932, *C.M. Roberts s.n.* (MO-3082707, ver. J.J. Atwood, US).

*Notes* – The original specimen label notes that *D. nudum* is a new distribution record for West Virginia and that the plants were checked against O’Neal’s specimen, a reference to Grout’s (1925) *N. Amer. Musci Perfecti Exsicc. No. 29, D. nudum* from nearby Delaware County, Ohio. However, the species has still yet to be formally documented from the state (Moyle Studlar et al. 2002; Schofield 2007). Although the plants have immature capsules, the strongly twisted setae, persistent protonema and small bud-like plants with brownish leaves and indistinct costae are diagnostic for the species. **Contributor:** John J. Atwood

***Imbribryum alpinum*** (Huds. ex With.) N. Pedersen

*Significance* – New for Arkansas and Missouri.

*Voucher specimens* – **U.S.A. ARKANSAS: Johnson Co.**, Ozark National Forest, Haw Creek Falls Recreation Area, along Haw Creek near Haw Creek Falls, 260.0m, 35.677900°N, 93.255340°W, 5 July 2013, on rock in stream, *J.C. Brinda* 4613 (MO). **MISSOURI: Madison Co.**, Lower Rock Creek/Cathedral Canyon proposed Natural Area, ca. 11.2 miles south/southwest of Fredericktown, Lower Rock Creek on outcropping rhyolite bedrock in creek, on crevice of rhyolite slab in drainage, 37.5008200°N, 90.4893000°W, 17 April 2024, *J.J. Atwood & D. Ladd* 4204 (MNH, MO-7047278); *ibid.*, submerged in pool on rhyolite slab, 22 April 2024, *J.J. Atwood & D. Ladd* 4242 (MNH, MO-7047244); Mark Twain National Forest, Fredericktown Ranger District, Dark Hollow, along Lower Rock Creek east of Jordan

Hollow, 201.5m, 37.501620°N, 90.483577°W, 5 April 2014, on streamside soil over rock, *J.C. Brinda* 5845 (MO). **Reynolds Co.**, Johnson's Shut-ins State Park, Johnson's Shut-ins Natural Area, cliffs and rock outcrops near the main shut-in, 245.0m, 37.537848°N, 90.837773°W, 29 September 2013, on rock in stream, *J.C. Brinda* 4835 (MO); East Fork Wild Area, along the East Fork Black River, smaller riffle about 1 km below the main shut-in, 238.5m, 37.532520°N, 90.841641°W, 29 September 2013, on streamside rock, *J.C. Brinda* 4841 (MO). **Shannon Co.**, Ozark National Scenic Riverways, shut in between Buzzard Mountain and Mill Mountain along the Ozark Trail between Highway NN and the old Klepzig Mill, 195.0m, 37.117450°N, 91.201158°W, 21 September 2013, on rock in stream, *J.C. Brinda* 4804 (MO).

*Notes* – *Imbriobryum alpinum* has not previously been reported from Arkansas or Missouri (Darigo 2015; Spence 2014) but is widely distributed across North America from Newfoundland to Alaska and south to Illinois, Colorado and California (Spence 2014). Both the Arkansas and Missouri specimens compare well morphologically to each other and to an Illinois specimen (Pope County, *Allen* 5917, MO) that was determined by John Spence. Although that specimen was similarly collected along a creek bed, it was found on siliceous instead of igneous rock. Additional populations of *I. alpinum* are likely to be found throughout Missouri's St. Francois Mountains. **Contributors:** John J. Atwood and John C. Brinda

*Jubula hutchinsiae* subsp. *bogotensis* (Steph.) Verd.

*Significance* – Additional Arkansas localities.

*Voucher specimens* – **U.S.A. ARKANSAS: Baxter Co.**, Sandstone glade with narrow deep crevices, ca. 1 mile SE of Culp. N 1/2 sec 24, T17N, R12W, very common on vertical sandstone, 36.1021900°N, 92.2176800°W, 13 April 1968, *P.L. Redfearn* 23227 (MO-3683188 & MO-2036630, det. J.J. Atwood). **Hot Spring Co.**, Along tributary to Prairie Bayou, ca. 4 miles NE of Bismark, NE1/4 Sec. 27, T4S, R20W, north facing rocky (novaculite & shale) slope, on vertical moist novaculite, 34.3629008°N, 93.1239142°W, 1 July 1968, *P.L. Redfearn* 24242 (MO-3971288, det. J.J. Atwood). **Newton Co.**, N-facing overhanging sandstone bluff ca. 1/2 mile south of Compton, Sec. 25, R21W, T19N, underside of sandstone ledge, 36.0959107°N, 93.1689635°W, 18 March 1966, *P.L. Redfearn* 18872 (MO-6237178, det. J.J. Atwood); Upper Terrapin Branch, Sect. 26, T14N., R.23W, narrow ravine with extensive high sandstone bluffs on wet N-facing sandstone, 700ft, 35.8650315°N, 93.4193446°W, 2 May 1971, *J.S. Key* 753 (MO-6237174, det. J.J. Atwood).

*Notes* – Previously reported from Arkansas by Schuster (1992) based on a single specimen from Washington County (*L.E. Anderson* 12262, DUKE-209418). The specimens reported here are from three additional localities in counties from the northern, northwestern and central parts of the state. **Contributor:** John J. Atwood

*Lophozia excisa* (Dicks.) Dumort.

*Significance* – New to Virginia.

*Voucher specimens* – **U.S.A. VIRGINIA: Alleghany Co.**, Above Jackson River Trail. Near Smith Bridge, 1.0 mile SSE of Falling Spring, in clump of *Pleopeltis* hanging off shale cliff in shade of large red cedar on SW-facing slope, 37.8739200°N, 79.9677400°W, 6 October 2022, *T.F. Wieboldt* 14536 (MO). **Page Co.**, Little Stony Man disturbed site within Shenandoah National Park on thin soil over rock, 38.6029797°N, 78.3681612°W, 7 July 2023, *I. Hildesheim* 244 (TENN-B-0141115); Little Stony Man undisturbed site within Shenandoah National Park Central Appalachian northern hardwood forest (Yellow Birch - Northern Red Oak Type), on horizontal shelf 1–2 meters above base of the Little Stony Man cliff just off of the Passamaquoddy Trail (PT) between the PT and AT, medium/moderate habitat quality as there is more use than a fully disturbed site but there are still untouched microhabitats and protective signage for part of the rock/cliff face, on thin soil in rock crevice shaded and kept moist by grass growing over it, ~80% shade, 38.60307°N, 78.36831°W, 10 June 2025, *A. Mazzatta, J.M. Budke, & L. Halasz* 107 (SHEN-004702 as associated taxa).

*Notes* – *Lophozia excisa* is globally distributed, but heavily concentrated in the circumpolar boreo-arctic (Bakalin 2011, Long 2014). More temperate specimens like those in North Carolina, West Virginia (Greenbrier Co., Kates Mt., *E.G. Britton* s.n. (F-C0024745F p.p.) and those cited here, are restricted to high elevation, montane habitats (Schuster 1980, Hicks 1992). These are the first specimens reported from Virginia, perhaps because *L. excisa* is polymorphic and often confused with *L. bicrenata* (Bakalin 2011).

*Lophozia excisa* habitat preferences vary, from damp, nutrient rich environments (Manyanga 2011), like the TENN specimen, to open, drier outcrops (Long 2014), like those of the SHEN specimen. The species is paroicous and produces some of the largest spores in the genus (Manyanga 2011). It also reproduces asexually, producing large, brown gemmae as in the F and MO specimens. Additionally, the 2–4-lobed, succubous leaves with shallow sinuses, and large median cells distinguish it from related species.

**Contributors:** Thomas F. Wieboldt, Aspen J. Mazzatta, Jessica M. Budke, Wendy B. Cass, Eric D. Shershen and John F. Townsend

***Merceyopsis cataractae*** (Mitt.) Brinda, Ignatov & Fedosov

*Significance* – New to Illinois.

*Voucher specimen* – **U.S.A. ILLINOIS: Pope Co.**, Lusk Creek Canyon Nature Preserve, sandstone bluffs along a sharp bend in Lusk Creek, 151.1m, 37.517612°N, 88.539172°W, 27 September 2014, on sandstone, *J.C. Brinda 7036* (MO).

*Notes* – This is apparently the first midwestern station for this rare moss (Zander 2007 as *Scopelophila cataractae* (Mitt.) Broth.). **Contributor:** John C. Brinda

***Orthodontium pellucens*** (Hook.) Bruch & Schimp.

*Significance* – New to New Mexico.

*Voucher specimen* – **U.S.A. NEW MEXICO: Otero Co.**, Lincoln National Forest, Sacramento Ranger District, middle fork of upper Sawmill Canyon, north of the Rim Trail #105, 2711.7m, 32.890602°N, 105.787856°W, 4 April 2026, on rotten wood, *J.C. Brinda 19369* (MO).

*Notes* – Both the genus and species are new for New Mexico. The plants were found growing in association with *Tetraphis* Hedw. and *Lepidozia* (Dumort.) Dumort. They might have been overlooked were it not for the conspicuous sporophytes. **Contributor:** John C. Brinda

***Pedinophyllum interruptum*** (Nees) Kaal., **Fig. 1.**

*Significance* – New to Missouri.

*Voucher specimens* – **U.S.A. MISSOURI: Franklin Co.**, Meramec State Park, Meramec Upland Forest Natural Area, area surrounding Copper Hollow Spring, 191.0m, 38.238850°N, 91.096360°W, 15 July 2012, on down log, *J.C. Brinda 3940b* (MO-6491772, ver. V.A. Bakalin); *ibid.*, 4 August 2013, on down log, *4641a* (MO-7034351). **Shannon Co.**, Rocky Creek Conservation Area, Island Branch Natural Area, along a smaller north-facing tributary of Island Branch, 245.0m, 37.103900°N, 91.482022°W, 8 November 2021, on streamside rock, *J.C. Brinda 14730* (MO-7034380).

*Notes* – The Missouri records are significant as the westernmost stations of this rare liverwort for North America. The species bears a superficial resemblance to members of *Lophocolea* (Dumort.) Dumort. and *Chiloscyphus* Corda and may be overlooked for this reason. However, it is also autoicous and the dorsiventrally flattened perianths should easily distinguish it. The determinations of the Franklin County specimens were confirmed by Vadim Bakalin. **Contributor:** John C. Brinda

***Pleuridium rhynchostegium*** (Kindb.) Fedosov & Jan Kučera

*Significance* – New for Alabama, Connecticut, Delaware, District of Colombia, Florida, Indiana, Mississippi, New York, Oklahoma and Texas.

*Voucher specimens* – **U.S.A. ALABAMA: Cherokee Co.**, Wolfden Flats, 34.048130°N, 85.507770°W, 890 ft, 3 October 1999, *Redfearn, Jr. 39719* (MO-90247774, det. J.J. Atwood). **Lee Co.**, Auburn, 32.607500°N, 85.481700°W, 700 ft., 13 March 1897, *F.S. Earle s.n.* (MO-90248258, det. J.J. Atwood). **Tuscaloosa Co.**, Tuscaloosa, UA campus area, 33.209300°N, 87.536500°W, 220 ft, 17 June 1973, *R.G. Koch 7756* (MO-90178128, det. J.J. Atwood); Tuscaloosa, W-side road cut of River Road, near UA campus, 33.222300°N, 87.538900°W, 220 ft, 23 June 1973, *R.G. Koch 7793* (MO-90178131, det. J.J. Atwood). **CONNECTICUT: New Haven Co.**, Allingtown, 41.3019444°N, 72.9588889°W, 28 November 1874, *F.N. Pease s.n.* (MO-4457164, det. J.J. Atwood). **DELAWARE: New Castle Co.**, Mount Cuba, 39.7916666°N, 75.6394444°W, 24 May 1898, *A. Commons s.n.* (MO-3653633, det. J.J. Atwood, PH). **DISTRICT OF COLOMBIA:** Rock Creek Park, on ground, 38.9677778°N, 77.0452777°W, 10 June 1894, J.M. Holzinger, *Musci Acrocarpi Bor.-Amer. 14* (MO-3360377, det. J.J. Atwood). **FLORIDA: Bay Co.**, Lynn Haven, Plot

197, on edge of dry sand bank, 30.2544444°N, 85.6458333°W, 9 April 1926, *Banku s.n.* (MO-3360382, det. Atwood). **LEON CO.**, Ditch by R. R. trail, Midway cut-off, 30.472861°N, 84.407301°W, 13 March 1938, *R.O.S. Breen 386* (NY-315726, det. J.J. Atwood). **INDIANA: Spencer Co.**, 3 mi S of St. Meinard, on wooded slope, 38.135920°N, 86.824550°W, 28 June 1915, *C.C. Deam 16546* (NY-315703, det. J.J. Atwood). **MISSISSIPPI: Stone Co.**, Low beech-magnolia-pine-oak woods along US 49 ca. 4 miles S of Wiggins, on bare soil in woods, 30.7833300°N, 89.1333300°W, 10 July 1960, *R.A. Pursell & W.D. Reese 4112* (MO-4444464, det. J.J. Atwood). **NEW YORK: Colombia Co.**, Chatham, 42.3500000°N, 73.5833300°W, *H. Wheeler s.n.* (MO-2099930, det. J.J. Atwood). **OKLAHOMA: Le Flore Co.**, Along roadside on mountain highway, Pine Valley, on clay bank, 34.6500000°N, 94.7166600°W, 2 June 1941, *G.J. Ikenberry 2038* (MO-2858127, det. J.J. Atwood). **TEXAS: Smith Co.**, Wooded slope along a ravine, 7.5 miles E of Tyler on Texas Hwy. 64, on soil at the base of an oak, 32.3000000°N, 95.1500000°W, 10 August 1960, *W.D. Reese & R.A. Pursell 3726* (MO-860461, det. J.J. Atwood).

*Notes* – Anderson and Bryan (1958 as *Ditrichum henryi* H. A. Crum & L. E. Anderson) gave the probable North American distribution of *P. rhynchostegium* as throughout the Appalachian Mountains from Nova Scotia south to Louisiana and Georgia. This distribution matches that by Seppelt et al. (2007 as *D. rhynchostegium* Kindb.), although the species has not been documented with specimens from some northeastern and southeastern states. Seppelt et al. (2007) also notably included *P. rhynchostegium* from Arkansas. A reexamination of herbarium specimens of the morphologically similar *P. pallidum* (Hedw.) Jan Kučera & Fedosov was undertaken to better document the southern and western edges of the range of *P. rhynchostegium* in the eastern United States, as well as fill in missing state distributions. *Pleuridium rhynchostegium* is newly reported here from nine states and the District of Columbia. Besides the Appalachians, its range extends west to Oklahoma and Texas and south to Florida. **Contributors:** John J. Atwood, Curtis J. Hansen and Alvin R. Diamond

### *Syntrichia virescens* (De Not.) Ochyra

*Significance* – New to Virginia.

*Voucher specimens* – **U.S.A. VIRGINIA: Shenandoah Co.**, N end of Short Mountain 0.8 mi NNW of Edinburg Gap and 2.5 mi SE of Edinburg, 1760 ft, 38.79826°N, 78.52712°W, 23 April 2025, small bedrock outcrops in large open, limy barren (SE-facing) with widely scattered hickory, ash (dead), red oak, etc., *T.F. Wieboldt 14913* (VPI-B-0005743, MO, det. J.C. Brinda); Exposed root of *Quercus mühlenbergii* along upper edge of shale bedrock exposure; with *Phlox subulata*, hairy lip-fern, and *Eriogonum allenii* in large open, limy barren (SE-facing), *T.F. Wieboldt 14915b* (VPI-B-0005746).

*Notes* – This is the first report of *Syntrichia virescens* from Virginia and the central Appalachians and is one of only a few known localities in the eastern United States (Kramer 2023). This includes *S. rupicola* B.H. Allen from Pennsylvania (Allen 2005) which is a synonym. Specimens of *S. virescens* will likely key to *S. montana* Nees in the *Flora of North America* treatment (Mishler 2007). However, that name may not actually apply to any North American plants (unpublished data). The site at Short Mountain is an exceptionally limy shale barren which supports several mid-Appalachian shale barren vascular plant endemics. *Syntrichia pagorum* (Milde) J.J. Amann also occurs in this habitat but was not found at Short Mountain. *Syntrichia virescens* differs from *S. pagorum* in having a generally weaker dorsal stereid band, margins slightly recurved, awns that are longer and conspicuously bristly, and lacks the somewhat fusiform propagules of *S. pagorum*. **Contributors:** Thomas F. Wieboldt and John C. Brinda

### *Vinealobryum californicum* (J.A. Jiménez, D.R. Toren & Shevock) R.H. Zander

*Significance* – New to Washington.

*Voucher specimen* – **U.S.A. WASHINGTON: Kittitas Co.**, Wenas Wildlife Area, southwest of the Umtanum Recreation Site, along a small tributary of Umtanum Creek, 480.7m, 46.852453°N, 120.488567°W, 31 October 2016, on wet rock, *J.C. Brinda 9327* (MO).

*Notes* – A recently described species (Jiménez et al. 2014), so it will take some time before its true distribution is fully understood. This record places the species at least as far north as Washington State. **Contributor:** John C. Brinda

***Zygodon campylophyllus*** Müll. Hal.

*Significance* – New to the United States and New Mexico.

*Voucher specimens* – **U.S.A. NEW MEXICO: Catron Co.**, Gila National Forest, Gila Wilderness, along Iron Creek above its intersection with the McKenzie Trail #151, 2615.3m, 33.343455°N, 108.600750°W, 8 August 2019, on igneous rock, *J.C. Brinda 13615* (MO-7093932). **San Miguel Co.**, Santa Fe National Forest, Pecos Wilderness, along Beaver Creek and El Porvenir Trail #247 in Porvenir Canyon, 2414.9m, 35.738571°N, 105.438403°W, 18 April 2019, on granite, *J.C. Brinda 13316* (MO-7093933).

*Notes* – These specimens form the basis of the report in Allred et al. (2024) and are the only known stations north of Mexico. The relationship between this species and *Z. gracilis* Wilson (reported from British Columbia) remains to be elucidated, but either way *Z. campylophyllus* is the older name (Allen 2002).

**Contributor:** John C. Brinda

#### ACKNOWLEDGEMENTS

AJM, JMB, WBC and EDS would like to thank the National Parks Service Inventory and Monitoring Division for supporting the Shenandoah National Park study that produced two of the new records for Virginia (report number: NPS/SR—2026/420) as well as Isabel Hildesheim and Liz Halasz for fieldwork assistance, and Alexis Powell, Tessa Nuchols, Seth Shaw, Josh Kreis, and Garrett Billings for specimen curation assistance on this project. JJA thanks the Missouri Department of Conservation for funding a 2021 bryophyte survey of the Island (‘Allen’) Branch Natural Area, Rocky Creek Conservation Area, and a 2024 bryophyte survey at Lower Rock Creek/Cathedral Canyon.

#### LITERATURE CITED

- Allen, B. H. 2002. Moss flora of Central America, Part 2. Encalyptaceae—Orthotrichaceae. Monographs in Systematic Botany from the Missouri Botanical Garden 90: 1–699.
- Allen, B. H. 2005. Maine mosses. Sphagnaceae–Timmiaceae. Memoirs of The New York Botanical Garden 93: [xii] + [420] pp.
- Allred, K. W. 2011. Report on the 2010 SO BE FREE foray in southern New Mexico, with eight new moss records for the state. *Evansia* 28(3): 74–77.
- Allred, K. W., R. Kleinman & K. S. Blisard. 2024. Flora Neomexicana IV: Bryophytes (Mosses & Liverworts). 559 pp. Lulu Press, Raleigh, NC, U.S.A.
- Anderson, L. E. & V. S. Bryan. 1958. Systematics of the autoicous species of *Ditrichum* subg. *Ditrichum*. *Brittonia* 10: 121–137.
- Bakalin, V. A. 2011. Notes on *Lophozia* VI. Taxonomy and distribution of *Lophozia* and *Schistochilopsis* (Lophoziaceae) in North America north of Mexico. *The Bryologist* 114(2): 298–315.  
<https://doi.org/10.1639/0007-2745.114.2.298>.
- Darigo, C. E. 2015. Checklist of Missouri mosses. *Evansia* 32(2): 48–77.
- Fedosov, V. E., A. V. Fedorova, J. Larraín, M. B. Santos, M. Stech, J. Kučera, J. C. Brinda, D. Y. Tubanova, M. von Konrat, E. A. Ignatova & M. S. Ignatov. 2020. Unity in diversity: phylogenetics and taxonomy of Rhabdoweisiaceae (Dicranales, Bryophyta). *Botanical Journal of the Linnean Society* 195: 545–567.
- Frahm, J.-P. 2007. *Campylopodiella Brothera*. Pages 363–366. In: Flora of North America Editorial Committee (eds.), *Flora of North America North of Mexico* 27 (Bryophyta, part 1). Oxford University Press, New York.
- Grout, A. J. 1925. North American Musci Perfecti. 2: No. 26–50.
- Hicks, M. 1992. Guide to the Liverworts of North Carolina. Duke University Press, Durham and London.

- Jessup, S. 2019. Antheliaceae. Bryophyte Flora of North America, Provisional Publication. Accessed at: <http://www.mobot.org/plantscience/BFNA/V3/Antheliaceae.htm>
- Jiménez, J. A., D. Toren & J. R. Shevock. 2014. *Didymodon californicus* (Pottiaceae), a new species from California, U.S.A. Phytotaxa 158(1): 105–110.
- Kleinman, R., K. Allred & K. Blisard. 2011. *Brothera leana* (Sull.) Müll. Hal. (Dicranaceae) in New Mexico: A significant range extension for this acrocarpous moss in North America. Evansia 28(3): 69–71.
- Kramer, W. A. 2023. The genus *Syntrichia* Brid. (Pottiaceae, Bryophyta) in the Holarctic with special consideration of North America. Nova Hedwigia Beiheft 154: 1–234.
- Long, D. G. 2014. *Lophozia excisa*. Atlas of British and Irish bryophytes, Vol. 1. 258 pp. Pisces Publications. <https://www.britishbryologicalsociety.org.uk/wp-content/uploads/2020/12/Atlas-of-British-and-Irish-Bryophytes-V-258.pdf>
- Manyanga, P., L. Söderström & T. A. Hedderson. 2011. Co-variation of life history characters in the family Lophoziaaceae: a multivariate analysis. The Bryologist 114(3): 583–594. <http://www.jstor.org/stable/41289815>.
- Mishler, B. D. 2007. *Syntrichia*. Pages 618–627. In: Flora of North America Editorial Committee (eds.), Flora of North America North of Mexico 27 (Bryophyta, part 1). Oxford University Press, New York.
- Moyle Studlar, S., S. L. Stephenson & P. J. Harmon. 2002. Annotated checklist of the hornworts, liverworts, and mosses of West Virginia. West Virginia Division of Natural Resources, Wildlife Resources Technical Document. 02–3: [i–ii] 1–82.
- Schofield, W. B. 2007. Disceiaceae. Pages 200–201. In: Flora of North America Editorial Committee (eds.), Flora of North America North of Mexico 27 (Bryophyta, part 1). Oxford University Press, New York.
- Schuster, R. M. 1980. The Hepaticae and Anthocerotae of North America. 4: xviii + 1334 pp. Columbia University Press, New York.
- Seppelt, R. D., R. R. Ireland & H. Robinson. 2007. *Ditrichum*. Pages 450–458. In: Flora of North America Editorial Committee (editors), Flora of North America North of Mexico 27 (Bryophyta, part 1). Oxford University Press, New York.
- Spence, J. R. 2014. Bryaceae. Pages 117–185. In: Flora of North America Editorial Committee (editors), Flora of North America North of Mexico 28 (Bryophyta, part 2). Oxford University Press, New York.
- Zander, R. H. 1994. *Gyroweisia*. [In A. J. Sharp et al. (editors), Moss Flora of Mexico]. Memoirs of the New York Botanical Garden 69(1): 248–250.
- Zander, R. H. 2007. *Scopelophila*. Pages 483–485. In: Flora of North America Editorial Committee (eds.), Flora of North America North of Mexico 27 (Bryophyta, part 1). Oxford University Press, New York.