

Marylandica

Newsletter of the Maryland Native Plant Society

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*The Year of
the Sedge*



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Marilandica is a publication of the Maryland Native Plant Society.

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Image at right: (L to R) *Carex trichocarpa*, *C. frankii*, *C. granularis*, *C. atlantica*, *C. squarrosa*, *C. gynandra*, *C. pellita*, *C. swanii*, *C. lupulina*, *C. annectens*, *C. blanda*, *C. scoparia*, *C. vulpinoidea*, *C. granularis* (again), *C. lurida*, *C. laevivaginata*, *C. gracillima*. **Cover:** Bouquet contains the same species plus *C. styloflexa*. Photos by A. Krakowiak.

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Grassy bald, Roan Mountain (TN/NC border). Photo by A. Krakowiak.



ACTION ALERT

Help Stop the Sale of Invasive Plants in Maryland

INVASIVE PLANTS THREATEN NATIVE PLANT HEALTH AND BIODIVERSITY in both agricultural and natural systems in Maryland. Many of these problematic plants are imported, bred, and sold to landscapers and home gardeners. Maryland's Invasive Plant Advisory Committee (IPAC) was established by legislative mandate in October 2011 to advise the Maryland Secretary of Agriculture on regulating the sale, introduction, and spread of invasive plants. In 2024, Maryland's invasive plant laws were updated, adding thirteen species to the six species on Maryland's Prohibited Invasive Plant List. These nineteen invasive species will be phased out of the nursery trade over the next two years.

IPAC needs your help to:

- 1. Document the spread of invasives in Maryland.** Report your observations using the iNaturalist app when you spot an invasive plant in a natural area. Submit photos and descriptive text (e.g., in flower, fruit present, habitat) and be sure to turn on your GPS to provide the location.
- 2. Complete Invasive Plant Assessments (IPAs).** Plant experts are needed to help complete IPAs, which include conducting a literature search and completing a series of questions about a plant's ecological and human impacts, distribution, and management difficulty. For more information, including a list of species that IPAC is prioritizing for study, go to: tinyurl.com/MarylandIPAC.

Interested? Send email to MDNPStreasurer@gmail.com.



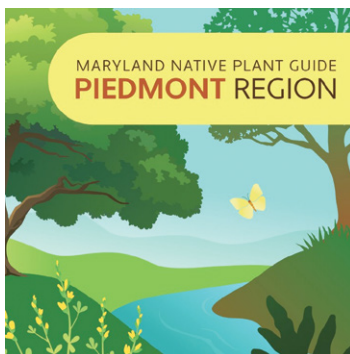
MNPS Works on Behalf of Native Plant Protections

Federal protections for wetlands and 88 million acres of public land have been stripped in the last several years, especially in 2025, while emission standards and climate monitoring have been decimated. As these critical federal protections have been reduced, it has become even more imperative that states and communities ensure strong local safeguards for natural areas. The Maryland Native Plant Society (MNPS) has been working to do just that through state legislative advocacy, support for natural landscaping professionals and homeowners, education, community building, and sharing our joy at the wonders of nature.

For the 2026 session of the Maryland General Assembly, we have helped write legislation and provided meticulously researched testimony for a dozen bills, in collaboration with the Maryland Native Plant Coalition. To get updates on actions you can take, subscribe to the Coalition's free newsletter at mdnativeplantcoalition.substack.com/about. As part of the Coalition, we also worked with the Invasive Plant Advisory Committee (IPAC) to evaluate and prohibit the sale of invasive species across the state (See Page 2).

Additionally, the MNPS board contributed to the development of the **Maryland Native Plants Program**. Here, we highlight some of the recent outputs from this impactful and informative program. The beautiful and informative **Maryland Native Plant Guide: Piedmont Region** book was published in November and is now available for purchase at www.mdflora.org/publications. MNPS board members contributed expertise, articles, plant lists, and photos to this guide and are currently helping with the **Maryland Native Plant Guide: Coastal Plain Region**.

Also arising from the Maryland Native Plants Program is the very useful **Commercial Maryland Native Plant List**, which provides a definitive list of plant species native to the Mountain, Piedmont, and Coastal Plain regions based on the Maryland Plant Atlas. In addition,



only plants that are appropriate for sale in nurseries are included in this list. This plant list is useful to both landscapers and private gardeners. tinyurl.com/commercialplantlist.

As part of the Maryland Native Plants Program, the MD Department of Ag in collaboration with the MD Extension and MNPS, has developed a list of Maryland's Best Native Plant Nurseries. Plant wholesalers and retailers who sell many species on the Commercial Maryland Native Plant List and apply for certification, can display this logo and benefit from Maryland's Best marketing at no cost. Find certified retailers at rebrand.ly/certifiedretailers. If your local garden center has not been certified, please encourage them to apply.

Perhaps more familiar to our readers are the activities relating to MNPS' main focus: celebrating the state's amazing diversity of native plants and communities. To accomplish this, we offer a monthly speaker series, publications including our bi-annual newsletter *Marilandica*, an invasive plants field guide, a booklet on using native plants for landscaping, a clickable map of native plant nurseries, field trips, active MNPS Chapters, and loads of useful information on our website. Every year, the Society awards roughly \$10,000 in grants for research relevant to Maryland's native plants. Additionally, each year we select a plant family or other taxonomic group to focus on: 2026 is the MNPS "Year of the Sedge" (Cyperaceae). This issue of *Marilandica* features two articles on sedges, and the always popular Plant Match (Page 11) showcases sedge anatomy. We also plan to offer a workshop on sedge identification in late June.

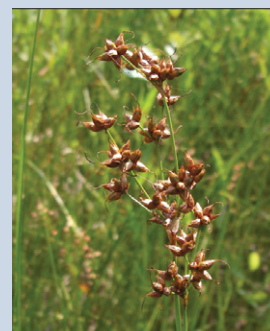
None of what we do would be possible or meaningful without YOU – our amazing members who hold vast knowledge, are doing amazing work, are kind, are fun, and love plants as much as we do. Let's face it—*plant people are wonderful*. Thank you for being a part of the MNPS community. Wishing you joy, light, strength, and peace.

The Editors

More Sedges...

The focus of this issue is on sedges in the genus *Carex* but there are many other sedge family members in Maryland, including these three.

Left to right: River Bulrush (*Bolboschoenus fluviatilis*), photo by W.A. McAvoy; Woolgrass (*Scirpus cyperinus*), photo by C. Niciporciukas; Smooth Sawgrass (*Cladium mariscoides*), photo by W.A. McAvoy.



The Remarkable Adaptability of *Carex* Sedges: The True Sedges

The Cyperaceae (Sedge family) is the third largest family of vascular plants in Maryland, with 288 species, subspecies, and varieties, of which 264 are native and 24 are non-native (Knapp & Naczi 2021). Within the Cyperaceae, *Carex* stands out as its largest and most diverse lineage with more than 2,000 species worldwide and approximately 480 species occurring in North America (Ball & Reznicek 2002). *Carex* species are referred to as the “true sedges” because they show the full set of traits that define the sedge family more clearly than any other group: a solid and triangular stem and three-ranked leaves. *Carex* is distinguished from other sedge genera by the presence of a perigynium (a sac that encloses the ovary). The form of the perigynium varies greatly and is an important characteristic for species identification.

With 166 taxa in Maryland (Maryland Plant Atlas Work Group 2026), *Carex* is the most species-rich sedge genus and the largest genus of vascular plants in the state flora (Frye & Lea 2001; Knapp & Naczi 2021). The high diversity of *Carex* is the result of species having adapted to a wide variety of ecological conditions thus occupying a broad range of ecological niches.

By **CHRISTOPHER T. FRYE**

Ecological Adaptabilities of *Carex* in Maryland

In Maryland, *Carex* taxa occur in nearly every habitat imaginable, from urban lots and roadside ditches to fens, glades, barrens, and pristine wetlands. Some species are widespread across multiple of Maryland's five Physiographic Provinces; others are tightly restricted to a single county, soil type, or geological formation. Sedges have adapted to deal with stress, disturbance, competition, and limited resource availability. The wide ranging geographical and ecological locations of *Carex* species in Maryland are a testament to *Carex*'s adaptability. A list of *Carex* and their distributions and associated habitats in Maryland is available at Frye and Lea 2001.

***Carex* of the Appalachian Plateau**

The most distinctive region for *Carex* diversity occurs on the Appalachian Plateau of western Maryland in Garrett County. The Appalachian Plateau hosts species that typically occur only in colder, previously glaciated regions well to our north. Their presence in Maryland indicates refugia where cold-adapted species survived postglacial warming in

peaty, nutrient-poor, saturated soils. The rarity of these ecosystems emphasizes their high conservation value.

The high elevation meadows and glades of Garrett County contain 14 species that are restricted to that province and occur nowhere else in Maryland. These are species of northern climates and their presence in Maryland is, for the most part, expected. Northern species like *Carex trisperma**, *Carex utriculata*, *Carex tuckermanii*, and *Carex echinata* occur in the fens and peaty sedge meadows of Garrett County, as might have been predicted. However, one species—*Carex diandra*, is particularly noteworthy because the range of the species had previously been thought to be the historically glaciated Northeast.

***Carex* of the Piedmont**

The geological complexity of Maryland's Piedmont province offers plants great opportunities for diversification. Where unusual rock formations such as serpentine and diabase occur, grassland and savanna habitats can be found, along with species that are highly restricted and very rare. For example, Midwestern species like *Carex richardsonii*, *Carex hystericina*, and *Carex meadii* only occur in Maryland within the state's serpentine and diabase barrens. We even

Salt meadow at Hooper's Island, Dorchester County. Photo by C. Niciporciukas.



Chris Frye examining a *Carex* species at Chapman Forest Shell-Mark Ravine Forest. Photo by R.H. Simmons.

have one regional endemic variety, *Carex tetanica* var. *canbyi*, known from fewer than ten sites globally.

Sedges that grow on nutrient-poor, magnesium-rich, calcium-variable soils show how sedges can be geological specialists tied to rare substrates. Even *Carex interior*, common elsewhere, becomes a soil-restricted specialist in Maryland—a reminder that ecological suitability is more stressed at range margins. *Carex interior*, although ubiquitous throughout the Northeastern United States, requires the calcium-rich or ultramafic soils near the southern limits of its known range in Maryland. These kinds of habitat shifts are rare, but they do occur.

Carex of the Coastal Plain

Covering two-thirds of Maryland, the Atlantic Coastal Plain is a vast region of terrestrial and wetland habitats. It serves as a vital sanctuary for rare plant life, including many species of *Carex*. For example, *Carex vestita*, once a component of fire-maintained oak-pine savannas and woodlands, is now restricted almost entirely to roadsides and powerlines in Maryland, where sunlight is not limited and frequent mowing suppresses woody species. *Carex vestita* is an example of how fire suppression and land alteration can significantly alter sedge ecology and reveals how human disturbance can both threaten and inadvertently maintain a species. It is a clear example of a more modern distribution.

Seasonal wetland communities, known as Delmarva Bays, offer a unique assemblage of *Carex* species. *Carex striata*, a colonial (spreading by subterranean rhizomes) species often dominates these habitats up to 100 percent cover. Other species found in Delmarva Bays and other Coastal Plain wetlands include *Carex jorii*, *Carex glaucescens*, *Carex lupuliformis*, and *Carex gigantea*. These species are wetland specialists that define and structure entire ecosystems. They stabilize soils, regulate hydrology, and create habitat for invertebrates, amphibians, and other rare plants. These *Carex* sedges act as ecosystem engineers in isolated wetlands. Their presence also signals intact hydrology and high-quality wetland conditions.

Matrix-forming Carex in Wetlands and Meadows

Several *Carex* species form the matrix of herbaceous wetland glades and meadows in which all other plant species are embedded. These species are generally dominant and form dense clumps. One example is *Carex lacustris* with rare occurrences in tidal freshwater marshes on the Coastal Plain and high elevation peatlands in Garrett County—and no populations in between! Another example is *Carex utriculata* that grows in elliptical to circular clonal patches in mountain peatlands that may cover nearly an acre! Both species exhibit rare sexual reproduction. Among thousands of square meters of habitat, there may be very few inflorescences and of the perigynia that do occur, most will not contain a seed. This space-usurping ecological adaptation allows for large stands composed of just one or a few clones.

Other matrix species include *Carex woodii*, frequently a dominant plant in montane-alluvial forests in western Maryland, and *Carex hyalinolepis*, a sedge of tidal rivers and bald-cypress swamps in the lower Pocomoke River watershed. *C. hyalinolepis* occurs in populations containing thousands or tens of thousands of stems but is confined to those habitats and nowhere else in Maryland.



Carex lupuliformis (False Hop Sedge). Photo by N. DeBarros.



Carex lupuliformis (False Hop Sedge). Photo by N. DeBarros.



Carex interior (Inland Sedge). Soldier's Delight seepage wetland, Baltimore County. Photo by C. Frye.



Carex lacustris (Lake Sedge). Photo by N. DeBarros.



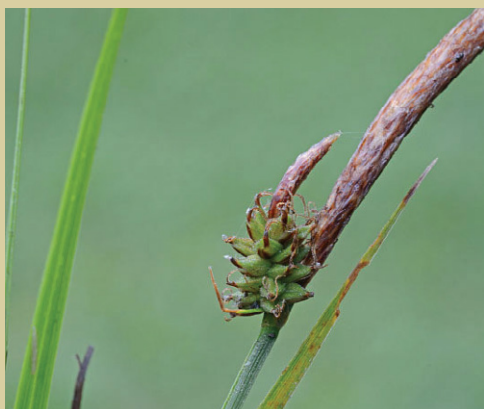
Carex woodii (Pretty Sedge) habitat at Black Sulphur Run, a montane alluvial floodplain, Ridge State Forest, Allegany County. Photo by C. Frye.



Carex meadii (Meade's Sedge). Photo by N. DeBarros.



Rhizomes of *Carex meadii* (Meade's Sedge). Photo by N. DeBarros.



Carex vestita (Velvet Sedge). Photo by G. P. Fleming.

The *Carex* species described above share a remarkably consistent ecological strategy built around clonal dominance, space capture, and long-term habitat stability. Although each species discussed occupies a different type of wetland, their growth patterns and population structures reveal a common foundational ecological role: they shape the habitat, define the community composition, and persist through time by occupying space more effectively than their competitors.

Carex as Architects

The growth patterns described above underscore the ecological centrality of *Carex* in Maryland's wetlands, forests, barrens, and tidal systems. Knowing where a *Carex* species is found and how it grows allows us to infer its climatic tolerances, soil chemistry preferences, hydrologic niche, disturbance dependencies, and role in community structure. In turn, mapping the distribution and habitats occupied by *Carex* species provides a wealth of ecological and environmental information. Understanding where and how *Carex* species occur in Maryland helps reveal which habitats are rare or threatened and therefore can inform conservation priorities. *Carex* distributions also provide insights into specific ecological conditions.

Follow this QR code for tips for keying out *Carex*.



Conservation Concerns

Threats to *Carex* mirror the pressures faced by other native plants and communities including agriculture, development, sea-level rise, fire suppression, and poor protection status. While we know where most sedge species grow and the conditions they require, comprehensive management strategies are lacking.

Many *Carex* species are also highly sensitive to hydrologic alteration, including changes in groundwater flow, ditching, or wetland drainage that can eliminate populations dependent on stable moisture regimes. This means developments, climate change, and sea level rise can kill off populations without ever being in direct contact with the ecosystem. Invasive species further complicate management by outcompeting native sedges in both upland and wetland habitats, especially where natural disturbance cycles, such as fire, have been disrupted. Taken together, these factors show that conserving *Carex* in Maryland requires not only protecting known populations but also restoring the ecological processes, especially fire and hydrology, that once sustained them.

Follow this QR code for the common names of all *Carex* species mentioned in the article.



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Saving the Southeast's Forgotten Grasslands



Grassy bald, Roan Mountain (TN/NC border). Photo by A. Krakowiak.

Imagine a grassland. You will likely picture a vast, open, treeless expanse as far as the eye can see, perhaps like the Great Plains of the Midwest. While extensive prairies once existed in parts of the Southeast, there are a multitude of other, lesser known types of grasslands in this region as well.

The Southeastern Grasslands Institute (SGI) classifies grasslands into ten major types: prairies, savannas, barrens, glades, balds, riverscours, meadows, fens, montane bogs, and depression ponds. The key unifying trait for these grassland types is their occurrence in places where woody plants are unable to form a closed canopy. For example, the shallow, rocky, and nutrient-poor soils of glades and barrens and the waterlogged soils of bogs and fens impede the growth of trees, while prairies and savannas are kept open by regular cycles of disturbance, including fire and grazing by bison and elk.

Grassland Conservation is Critical

Southeastern grasslands are hotspots of biodiversity that are rich in endemic and undescribed species. In fact, 60% of the 6,000 or so native plant species of the Southeast require or prefer

By **JORDAN COSCIA**
and **ALAINA KRAKOWIAK**



Dense Blazing Star (*Liatris spicata*) in Montgomery County, VA. Photo by J. Coscia.

grassland habitats. However, over 90% of Southeastern grasslands have been lost as a result of centuries of degradation and destruction, and the surviving remnants are disappearing at an alarming rate. Because the majority of grasslands were lost early in the nation's history, the fact of their existence has largely fallen out of our collective consciousness.

To prevent our grasslands from being forgotten, SGI is dedicated to rebuilding the formerly extensive grasslands of the Southeastern United States. Across our 24-state focal region, which we call

the “biogeographic Southeast,” we are engaged in a wide variety of projects (<https://www.segrasslands.org/grasslands-restoration-program-projects>) including a hyperdiverse prairie planting at Google's data center in Clarksville, Tennessee, “vertical grassland” surveys along cliffs in the Cumberland Gap, and wet meadow restoration in the Chesapeake & Ohio Canal National Historical Park (C&O Canal) near Spring Gap, Maryland. Because broadscale grassland conservation will require a massive collaborative effort, we welcome the opportunity to work with private landowners, government agencies, corporate entities, and other partners.

What Happened to Southeastern Grasslands?

When European colonists arrived in the American Southeast, grasslands and other open habitats were often the first places they settled. Prairies and open grasslands with rich soils were converted to crop fields, while other grasslands and meadows that were too wet or too rocky for cultivation were often converted into pastures for livestock. As colonists



Woodland maintained by fires lit as a result of military training activities, Fort Barfoot, Nottoway County, VA. Photo by J. Coscia.

Nashville Basin
Limestone Glade,
Couchville Cedar Glades
State Natural Area,
Davidson County, TN.
Photo by A. Krakowiak.



Grassland maintained by fires lit as a result of military training activities, Fort Barfoot, Nottoway County, VA. Photo by J. Coscia.



Wet meadow, Chesapeake and Ohio Canal National Historical Park, Allegany County, MD. Photo by J. Coscia.

spread, the natural disturbance regimes that maintained native grasslands were altered or altogether eradicated. Native Americans were pushed off of their lands, cultural and wild fires were suppressed, and large herbivores were driven to extinction across the region.

Without these disturbance regimes, open woodlands and savannas were gradually replaced by shrubs and trees that shaded out the sun-loving grassland plants. Between the intentional conversion of grasslands into agricultural land and the unimpeded overgrowth of trees, over 90% of the native grasslands and open habitats in the Southeast have been lost.

Some Hope for Grasslands

Despite massive habitat loss, Southeastern grasslands are not entirely gone. Small grassland remnants can be found in places that have escaped plowing or development and are sustained by environmental or soil factors that limit tree growth. As such, some of our highest quality grassland remnants can be found in surprising places: narrow, rocky riversides periodically scoured by high-energy floods, powerline rights-of-way that are maintained in an open, treeless state through mowing or spot-spraying of herbicides, rural cemeteries that are mowed irregularly, and military firing ranges that are subjected to fire. In addition to providing critical habitat for a multitude of rare and declining native plant and animal species, these remnants are also key to our goal of rebuilding Southeastern grasslands. High-quality grassland remnants are the last surviving examples of these once common habitats, and they serve as irreplaceable sources of seeds that we can use to bring them back.

Restoring and Reconstructing Grasslands

In addition to locating and identifying grassland remnants, SGI works to restore unhealthy grassland remnants and to reconstruct new native grasslands in areas where they have been destroyed. Grassland restoration involves making changes in land management practices

and reinstating natural disturbance regimes to return once-healthy native grasslands to a more stable state.

The most common problems observed in grassland remnants are encroachment by unwanted trees and shrubs, invasion by non-native plants, and the suppression of natural wildfires. By removing excessive woody vegetation, managing invasive plants, and/or introducing prescribed fires, our restoration crews promote the growth of the native grassland plants already present at the site. In contrast, grassland reconstruction involves the total recreation of a native grassland on land that is heavily degraded, previously converted to agricultural fields or other land uses, or lost to woody encroachment. SGI accomplishes this through the removal of woody and invasive plants followed by seeding and planting native grassland species.

Rebuilding Healthy Grasslands in National Parks

SGI has partnered with the National Park Service (NPS) to restore and reconstruct native grasslands in over 40 national parks, monuments, and battlefields. In Maryland, we are restoring and reconstructing grasslands across 24 sites at Antietam National Battlefield, Catoctin Mountain Park, C&O Canal, and Monocacy National Battlefield. In each park, we have worked closely with NPS staff to design and implement grassland restoration and reconstruction plans that align with both the natural and human history of each site.

At restoration sites, SGI is removing encroaching woody plants and treating invasive species that are outcompeting native grassland plants. For example, in the Spring Gap fields of C&O Canal, we have removed invasive Autumn Olive (*Elaeagnus umbellata*) and planned prescribed fires to maintain a unique wet meadow containing one of Maryland's largest populations of the state-rare Virginia Mountain Mint (*Pycnanthemum virginianum*).

At reconstruction sites, SGI is partnering with Roundstone Native Seed to convert old pastures and battlefields



Carolina Sedge (*Carex caroliniana*)



Sallow Sedge (*Carex lurida*)



Nodding Sedge (*Carex gynandra*)



Bush's Sedge (*Carex bushii*)



Yellow-Fruited Sedge (*Carex annectens*).



Eastern Star Sedge (*Carex radiata*)



Squarrose Sedge (*Carex squarrosa*)



Broom Sedge (*Carex scoparia*)

All photos taken in Chesapeake and Ohio Canal National Historical Park, Allegany County, MD, by A. Krakowiak.

dominated by non-native, cool-season grasses to diverse, native grasslands with custom native seed mixes tailored to each site. For example, at Monocacy National Battlefield, in the creekside Lower Gambrill East field, we have designed a seed mix that includes five sedge species that are well adapted to thrive in wet meadow conditions: Longhair Sedge (*Carex comosa*), Frank's Sedge (*Carex frankii*), Bladder Sedge (*Carex intumescens*), Squarrose Sedge (*Carex squarrosa*), and Tussock Sedge (*Carex stricta*).

In Maryland and beyond, SGI is dedicated to preserving and restoring the grassland remnants and rebuilding

grasslands where they have been lost. Grassland loss is the single greatest conservation issue currently facing eastern North American biodiversity. While reversing the tide of grassland loss is a monumental task, we believe that with hard work and dedication, it will be possible. Visit the SGI Website to learn more and to see how you can help!

To Know More:

Southeastern Grasslands Institute:
www.segrasslands.org

A Guide to Grasslands of the Mid-South:
tinyurl.com/2pp97sy7

Mulling Over Another Invasive Mulberry

By JIL SWEARINGEN

Imagine a White Mulberry (*Morus alba*) tree shrunk to the size of a Black-eyed Susan (*Rudbeckia hirta*) and bearing dry, inedible fruits. That's roughly what the pint-sized invader Mulberryweed, a.k.a. Hairy Crabweed (*Fatoua villosa*), looks like. Mulberryweed is a warm-season annual forb in the Mulberry family (Moraceae). Other members of this family in Maryland include Osage Orange (*Maclura pomifera*) which is native to Arkansas, Oklahoma, and Texas; non-native and invasive Paper Mulberry (*Broussonetia papyrifera*) and White Mulberry trees. Red Mulberry (*Morus rubra*) is the only native mulberry tree in Maryland where it is widespread but rare.

Why is Mulberry-weed (MW) a problem and how does it spread?

MW grows densely and displaces native plants. Local spread is through explosive release of seed—up to 4 feet! Distant spread is by seed in mulch, topsoil, yard waste, or in the soil of potted, balled, or transplanted plants; wildlife are not known to disperse it. It flowers numerous times in a year and produces prolific amounts of seed, facilitating its spread. MW has been in Maryland for over a decade and is spreading where it has been found. For these reasons, it's very helpful to learn how to recognize this plant, report it (see below), and remove it whenever possible.

Where did it come from and how did it get here?

MW is native to Australia, eastern Asia, and the Pacific Islands and was first documented in Louisiana around 1964. Initially, seeds may have come to the U.S. on repatriated military equipment after World War II and spread by hitch-hiking on landscaping products and soil. It readily escaped into natural areas by seed and by dumping of fertile plants. MW often shows up in arboreta and nurseries, possibly as a contaminant in potted plants, compost, and landscape materials.



Foliage resembles a White Mulberry seedling.



Plant habit.



Inflorescence with seed.



Seedling with flowers.

All images are of Mulberryweed and were taken by Joe Neal, Professor of Weed Science and Extension Specialist, Horticultural Science, North Carolina State University, Raleigh, NC.

Where is it found and what habitats

does it prefer? MW has been reported to be invasive in widely scattered locations from Minnesota to Texas, east to New York and Florida. In Maryland, it occurs in 13 Piedmont and Coastal Plain counties but has not yet been found in the western counties. MW prefers moist soil in part shade and is often found hiding under taller plants.

How will I know MW when I see it? It is an erect herbaceous summer annual, 2-4 ft. tall, and covered with velvety hairs (thus the specific epithet "*villosa*"). Like most members of Moraceae, the stems exude a milky sap when cut. Other identifying features include:

- **Leaves:** Alternate, stalked, 2-4 in. long by 1-2 in. wide, triangular to heart-shaped, with toothed margins and a tapering tip.
- **Flowers:** Tiny (less than 1/10 in.), cream-colored, and arranged in dense, stalked, feathery, rounded clusters up to 3/4 in. across that emerge from the leaf axils. Clusters are purplish when young, turning brown with age.

- **Fruits:** Dry (no pies from this one!), single-seeded achenes less than 1/10" long. Seeds can survive for several years in the soil.

Does MW look like other plants? MW might be confused with non-native invasive Garlic Mustard (*Alliaria petiolata*) and Ground Ivy (*Glechoma hederacea*); native Pennsylvania Pellitory (*Parietaria pensylvanica*) and Clearweed (*Pilea pumila*), and other herbaceous plants with toothed heart-shaped leaves.

What do I do if I find MW? Report it using the iNaturalist and/or Early Detection and Distribution Mapping System (EDDMapS). Pull plants by hand and bag and dispose of material in the trash; do not put in compost or brush piles. A layer of mulch 2-3 in. deep effectively limits seedling emergence.

Scan QR code to access References.



Sedge Anatomy

Produced by JORGE BOGANTES MONTERO and PRU FOSTER

Match the **name of the structure** (A-E) to the **photo of the structure** (1-5). Answers are at the bottom of the page.

A. Female inflorescence (pistillate spike). Spikes are arranged in solitary or grouped clusters, develop either at the top of the stem (terminal) or along the stem (axillary), vary in shape, and range from green to brown, darkening with maturity.

B. Perigynium. A sac-like structure surrounding the female flower that distinguishes *Carex* from other members of the sedge family (Cyperaceae). Each perigynium contains a single fruit (achene). The perigynium ranges in color from green when immature to brown or yellowish, occasionally reddish, when mature. Perigynia (plural) are typically smooth but may be distinctly nerved (ribbed) in some species.



1. Three examples of this feature, as seen in False Hop Sedge (*Carex lupuliformis*), Sallow Sedge (*C. lurida*), and Hop Sedge (*C. lupulina*). Photo by N. DeBarros.

C. Male inflorescence (staminate spike).

The male spike is composed of several individual staminate (male) flowers, typically elongated to oval in shape, and occurring in the upper part of the stem. Male spikes are lighter colored and more conspicuous than female spikes, and range from greenish to white or yellowish, due to the presence of pollen-bearing anthers.

D. Achene (fruit). An achene is a dry, one-seeded fruit. After pollination, each female flower produces one achene per perigynium. Typically lenticular (two-sided) or trigonous (three-sided) and ovoid in shape. The surface is usually smooth, sometimes slightly glossy. Color changes from green when immature to brown or grayish at maturity.

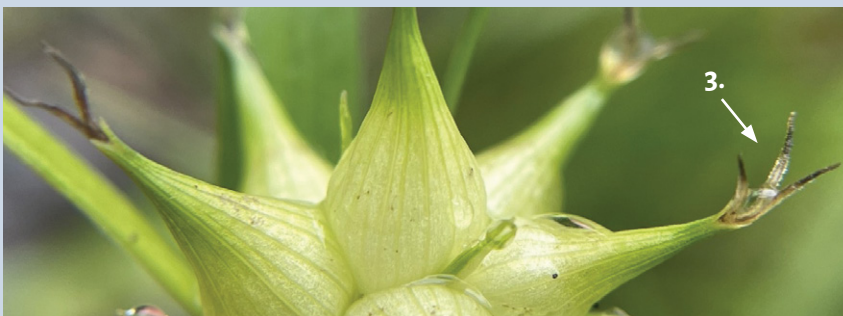


2. A collection of this feature on Wood Gray Sedge (*Carex grisea*). Photo by R. H. Simmons.

E. Beak, style, and stigma lobes. The tiny pointy bits at the tip of each perigynium are best viewed with magnification. The style (slender structure that connects the ovary to the stigma) arises from the top of the ovary, and extends through the beak (tip) of the perigynium, dividing into 2 or 3 slender stigmas (pollen receiving structures). Two stigma branches produce lenticular achenes; three stigma branches produce trigonous achenes.



4 and 5. Lake Sedge (*Carex lacustris*). Photo by N. DeBarros.



3. Bladder Sedge (*Carex intumescens*). Photo by J. B. Montero.

Answers: A.5; B.2; C.4; D.1; E.3.



Marilandica

Maryland Native Plant Society
PO Box 4877
Silver Spring, MD 20914

OUR MISSION

Promote awareness, appreciation and conservation of Maryland's native plants and their habitats. We pursue our mission through education, research, advocacy, and service activities.

Become a member.
Join online:
mdflora.org

UPCOMING EVENTS (APRIL - NOVEMBER 2026)

MNPS Field Trips

Registration is required. Field trips are posted at: mdflora.org. Have a suggestion for a field trip? Email: info@mdflora.org

MNPS Monthly Programs

Registration is required. To register, go to mdflora.org. Usually held the last Tuesday of the month, 7-9 pm (7:00-7:30 pm Board update). Talks start at 7:30 pm, are recorded and available at mdflora.org. Zoom only, unless otherwise noted.

April 16. Melissa McCormick. *Fungi as Keys to Unlocking Orchid Conservation.* Co-hosted by Md Orchid Society. (Hybrid).

April 21. Special Event: Panel. *Considering Stream Restoration: What Should the Future Hold?* (Hybrid). **Note: Panel starts at 7:00pm.**

May 19. Mimi Sanford & Gwen Brewer. *Plants in the State Wildlife Action Plan (SWAP)*

June 20. Lorie Staver. *Between the Tides: Island Loss, Sea Level Rise, and Marsh Restoration at Poplar Island.*

June 24. Sean Sipple. *Botanical Terminology for Sedge (Carex) Identification.*

July 28. Dan Buonaiuto. *Considering Climate Change in Native Plant Landscape Planning and Management Decisions.*

August 25. Rebecca Henson. *Rachel Carson's Wonder, Wisdom, and Local Legacy.* (Hybrid).

September 29. Martha Weiss. *Floral Biographies and Urban Foraging Portfolios.*

October 27. Kerry Wixted & Corinne Stephens. *Weed Warriors: Volunteers in Action.*

November 17. Chris Frye. *Exploring the Diversity and Ecology of the Genus Carex in Maryland.*

December. *Happy Holidays!*

SAVE THE DATE for Sedge (*Carex*)

Identification Workshop on June 27 at the Adkins Arboretum. Join us for an engaging sedge workshop designed for naturalists and environmental science professionals eager to sharpen their field botany skills. We will explore the identification of species in the *Carex* genus, practice using dichotomous keys, and build confidence in identifying sedges in one of the most sedge-diverse regions in the state. Workshop leaders: **Jorge Bogantes Montero and Sean Sipple.** Registration is required. Attendance is limited.



Photo by N. DeBarros.

Below: Happy attendees of the Eastern Shore Chapter sponsored field trip to Assateague Island on September 27, led by the lovely Jim Brighton. Photo by J. Brighton.

