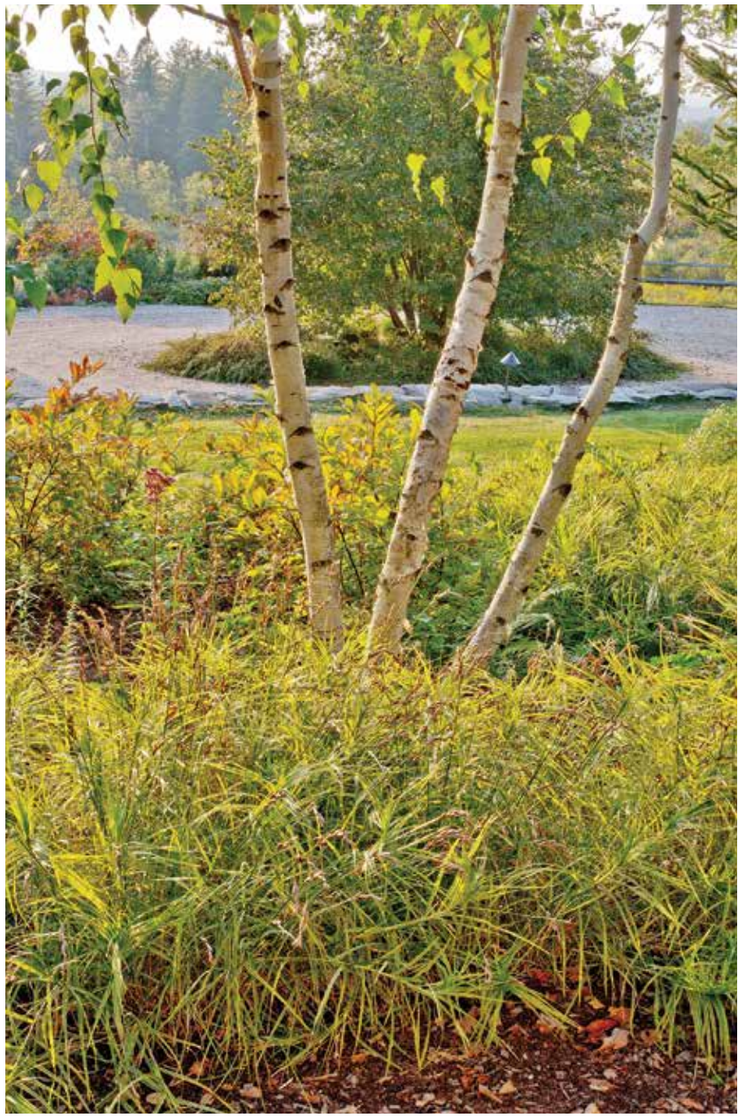
Success with Sedges

Native sedges *(Carex* spp.) are growing in popularity as adaptable, low-care landscape plants with hidden talents.

ARTICLE AND PHOTOGRAPHS BY KAREN BUSSOLINI



Designer Ana Hajduk of Singing Brook Garden in Wassaic, New York, massed 'Oehme', a variegated selection of palm sedge *(Carex muskingunensis)* as groundcover under this birch tree.

IF WE ARE to create more sustainable, environmentally beneficial landscapes, choosing native plants already adapted to habitats where we live is a good place to start. Native sedges *(Carex* spp.) are a perfect illustration of this philosophy. Most of us have probably unknowingly tromped on hundreds of these ubiquitous grasslike plants while hiking or walking in natural areas. I certainly have, because now that I'm aware of them, I spot them all over the woods around my Connecticut home.

In my own garden, and in my role as a garden coach helping people learn to care for their yards, I expect plants to function, not just sit there looking pretty. I see no reason why every plant we use can't be beautiful, support wildlife, and solve problems, too. Sedges, I've come to realize, fill all kinds of tricky niches in a landscape. They hold stream banks, populate meadows, prairies, wetlands (and rain gardens), carpet dry woodlands, tuft rocky slopes, replace lawns, weave their way through paving stones, suppress weeds, and feed and shelter wildlife (see sidebar, page 26). And their quiet beauty belies their tough nature and adaptability.

Sedges *(Carex* spp.) are part of the large and diverse sedge family (Cyperaceae). Of the estimated 2,000 species in the genus worldwide, some 500 are native to North America. Confusingly, botanists tend to refer to all members of the family as "sedges," so you'll sometimes see *Carex* species distinguished as "true" sedges.

"Nearly every North American habitat hosts sedges, often multiple species," says sedge expert Robert Naczi, the Arthur J. Cronquist Curator of North American Botany at the New York Botanical Garden (NYBG). "Although some sedges have large ranges," he explains, "they tend to be very specific to niches and habitat—there are relatively few generalists." Fortunately for gardeners, life is easier in cultivated landscapes, where many species readily adapt to a wider array of growing conditions than they do in the wild.

The author uses plantainleaf sedge *(Carex plantaginea)*, shown here as an accent for woodland phlox, in her Connecticut wildflower garden.

NUTS AND BOLTS

Sedges usually have solid, triangular stems and leaves arranged around the stem pointing in three directions. If you took a botany class, you may recall their stem structure distinguishes them from true grasses have round, often hollow stems, with swollen joints.

In habit, this diverse genus is quite variable. They can be neatly clump-forming or aggressively rhizomatous, short and fine-textured or big bold and wide-bladed, with flowers and seed heads that run the gamut from those that are easy-to-overlook to eye-catching species bearing showy bristles or capsules. Native sedges generally stay green throughout the winter and bloom from early spring to early summer. If foliage browns out in winter, cut it back early, before blooms appear. Cutting them back later may make for neater form, but you sacrifice seeds.

Before moving on to profiles of some individual sedges, I should point out that it can sometimes be difficult to find retail sources for these wonderful plants. Many are available only "to the trade" from wholesale nurseries or those that specialize in providing large orders for plant restorations, so you may need to ask a local nursery to order for you. Some species will be available at local native plant sales and in specialty nurseries. You can also order cost-effective plugs and bareroot plants from a few mailorder nurseries (see "Sources," page 29).

SEDGES FOR SHADE

A favorite of many gardeners is the tricky-to-propagate plantainleaf sedge *(C. plantaginea*, USDA Hardiness Zones 5–8), which thankfully is now more widely available. Its native habitat ranges from Minnesota through eastern North America in a narrow deciduous forest niche with rich, moist, neutral to alkaline soils. In the garden, though, this broad-leafed, clump-forming beauty thrives in light to deep shade, tolerates relatively acidic to alkaline soils and moist to somewhat dry conditions. Its medium to dark green, semi-shiny, half- to three-quarter-inch-wide, deeply puckered leaves suggest its other common name—seersucker sedge. Adding to its showiness are the thin deep purple, nearly black-tipped flowers that emerge in early spring.

Plantainleaf sedge is striking as a specimen or as a low, bold-textured (and weed-suppressing) mass. It plays well with others. Michael Hagan, curator of the NYGB Native Plant Garden, likes how its tidy foot-tall clumps make room for trilliums and other woodland wildflowers. I accent a sweep of woodland phlox *(Phlox stolonifera)* with scattered

clumps and combine it with Canada ginger *(Asarum canadense)* and fine-textured Pennsylvania sedge *(C. pensylvanica*, Zones 4–8) for contrast.

Delicate-looking Pennsylvania sedge, aka oak sedge, is irresistibly graceful in its own right, and also tough as nails. This eight- to 12-inch rhizomatous spreader ranges across eastern North America into the Midwest. It grows sparsely in dry upland woods with acidic soils, mingling with wild geraniums *(Geranium maculatum)*, lowbush blueberries, and woodland asters. In the north, assuming ample moisture, it tolerates more sun than in its southern range.

As an eco-friendly lawn alternative, Pennsylvania sedge's low height, uniformity and lovely fine texture give a soft, undulating "lawn look" in low foot-traffic areas. I value it as a good-natured mingler and weaver that threads its way through crevices too narrow to plant.

SOME LIKE IT WET

Taller-growing sedges suitable for wet sites abound. Among these is palm sedge *(C. muskingumensis*, Zones 4–9), a curvy, cold-hardy midwesterner native to floodplain forests and wooded lowlands. Among its kin, palm sedge stands out as an exotic-looking showstopper, growing two to three feet tall. Its eight- to 10-inch, densely arranged, glossy, bright green pointed leaves radiate around the stems, giving the appearance of pinnate palm fronds. The flowers aren't showy, but they rise above the foliage, ripening into spikelets of buff-colored seeds.

Palm sedge is a good replacement for invasive dwarf bamboo in moist semi-

At the Coastal Maine Botanical Garden in Boothbay, clumps of *Amsonia hubrichtii* in spring bloom punctuate a carpet of fine-textured Pennsylvania sedge *(Carex pensylvanica)*.

shade, where it expands gradually to form a weed-suppressing colony. Plant it around trees or leggy understory shrubs for a visually exciting underplanting that gets going early in the season, or combine with Joe Pye weed *(Eutrochium* spp.) near water.

In my yard, 'Oehme', a golden variegated cultivar, knits together winterberry hollies *(Ilex verticillata)* and shadblows *(Amelanchier canadensis)* in a wet, sunny spot. Its clumping habit accommodates *Camassia leichtlinii* 'Blue Danube', creating a gorgeous blue/gold combo that I've further enhanced with golden Alexanders *(Zizia aurea)*. Palm sedge isn't just a pretty companion, though. Its unpalatable-to-deer foliage seems to discourage camassia munching, it grows tall enough to conceal camassia's sprawling after-bloom foliage, doesn't complain when it doesn't rain, and turns an attractive yellow in fall.

Although its natural niche tends to be sites with wet, neutral soils and dappled shade, palm sedge is not fussy about pH, grows well in moderately fertile, loamy garden soil—even clay—and tolerates a wide range of light exposure. If it flops in deep shade, cut it back; the foliage quickly renews.

PLANT SEDGES FOR WILDLIFE

Landscapes are infinitely more beneficial—and interesting—when you take into account how well the plants you choose support the entire life cycle of insects, birds, and other wildlife.

Sedges are larval food plants for many moth and butterfly species. University of Delaware entomologist and book author Douglas Tallamy has identified 36 mid-Atlantic *Lepidoptera* species that feed on Pennsylvania sedge (*Carex pensylvanica)*, spreading sedge *(C. laxiculmis)*, tussock sedge *(C. stricta)*, and fox sedge *(C. vulpinoidea)*. Other notable caterpillar-feeding species include seersucker sedge *(C. plantaginea)*, clustered field sedge *(C. praegracilis)*, and palm sedge *(C. muskingumensis)*.

Energy-rich sedge seeds feed many mammals and birds—at least 29 bird species, according to a list provided on the Illinois Wildflowers website (see "Resources," page 29). Small songbirds eat tiny seeds of woodland sedges; upland birds, such as grouse, woodcock, and wild turkeys, consume larger seeds. Tall wetland sedges, many with seeds that float, are an important source of sustenance for waterfowl.

Sedges also create vital habitat and cover for a wide range of animals. Clumping sedges are nest sites for ground-nesting birds, and native bees excavate brood chambers in the soil below. Sedges provide protective cover for birds, amphibians, and small mammals. Taller aquatic species are cover and nesting sites for waterfowl, and shelter mating amphibians. —K.B.

Gray's sedge *(Carex grayi)*—here with spiky seedheads—makes a bold accent for moist sites.

Semi-evergreen Gray's sedge *(C. grayi*, Zones 3–9), also called morningstar or bur sedge, stands out as an ornamental with spiky flowers and unusual star-shaped seedheads that some references describe as "mace-like," although I think they are much prettier than that medieval weapon. These seedheads, greenish-yellow at first and then gradually turning brown, often persist into winter and are attractive either in the garden or in cut flower arrangements.

Gray's sedge grows in slightly shaggy clumps along creek edges, in wet deciduous forests, sandy swamps, marshes, and wet prairies throughout eastern and central North America. Growing in acidic to moderately alkaline soils in full sun to part shade, it can take temporary flooding, but does not tolerate dry soil.

Its lime-green, half-inch-wide, pleated leaves grow in upright, one- to two-and-a-half-foot-tall clumps arching over on top. It spreads slowly, beautifully controls erosion, thrives in problem wet spots, and works well naturalized in large sweeps, as an accent, or even in containers.

I was initially surprised to see this water-lover luxuriating in gardens below tall exposed ledges at the Coastal Maine Botanical Garden in Boothbay. The stony spine of land above was dry and sunny, with soil barely painted into crevices. But rainwater sheeting down these impervious rocks soaks into porous soil contoured to capture runoff, which made conditions just right for Gray's sedge.

LAWN SUBSTITUTES IN WARMER REGIONS

Another important role for sedges is as lawn substitutes, particularly in hot or drought-prone regions. Native sedges for lawns must be low-growing, need little or no mowing, spread rhizomatously, flourish without supplemental fertilizers, be adaptable, drought and/or moisture tolerant, climate appropriate, and—most important—tolerate some foot traffic without wimping out.

Andrea DeLong-Amaya, director of horticulture at the Lady Bird Johnson Wildflower Center (LBJWC) in Austin, Texas, praises the local heat-tolerant sand sedge, sometimes called the Texas Hill Country sedge *(C. perdentata*, Zones 7–10): "It's bright green, really pretty, and lush. I could see it as a lawn if you like the soft, mounded look." California-based grass expert John Greenlee recommends it as growing well in sun or shade, and heavy or sandy soils. He writes, "It looks best when watered regularly, but like most sedges, it will tolerate periods of summer drought."

Horticulturist Julie Marcus, also at the LBJWC, recommends Texas sedge *(C. texensis*, Zones 5–9) for dry shade in well-drained caliche soils under junipers in the

MORE REGIONALLY ADAPTED SEDGES TO CONSIDER

Plant Name	Height/Width (inches)	Characteristics and Site Requirements	Native Origin	USDA Hardiness Zones
Carex amphibola (creek sedge)	8–12/8–12	Forms compact upright mound of bold foliage; moist shade	Eastern North America	3–9
C. appalachica (Appalachian sedge)	12/10	Clump-former with fine-textured foliage; tolerant of dry shade	Eastern North America	3–8
C. cherokeensis (Cherokee sedge)	12–18/18–24	Forms groundcover; moist soils in part sun to full shade	Southeastern U.S.	6–9
C. eburnea (bristleleaf or ivory sedge)	8–8/6–8	Tufts of fine foliage spread slowly to form groundcover; thrives in dry, alkaline soils	Central and eastern North America	3–8
C. vulpinoidea (fox sedge)	12–36/6–24	Clumps of arching, fine-textured foliage spread slowly; moist to seasonally dry sites in part shade to sun	Widespread North America	3–8

Southwest. This wide-ranging sedge also tolerates hot, humid southeastern summers. It forms three- to four-inch mats that can either be left unmown or cut a couple times a year for a neater look.

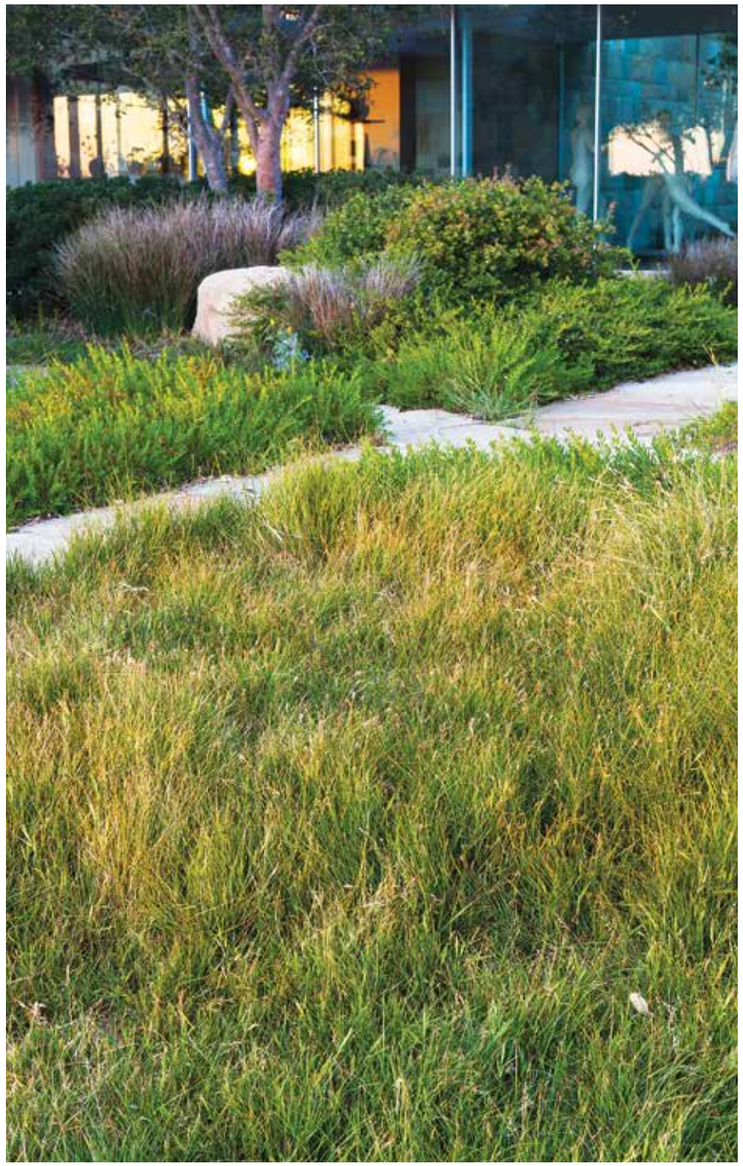
Bruce Reed, horticulturist at the Santa Barbara Botanic Garden in California, reports that after 75 percent of the gardens burned in a wildfire, native sedges, adapted to a fire ecology, came back beautifully. "So much of their life is in the rhizomes, they don't mind if the tops are burned, and the nutrient load from ash that sifts down is like a fertilizer shot," he says.

In Reed's experience, two sedges excel as lawns in California. They are sand dune or meadow sedge *(C. pansa*, Zones 6–9), from West Coast beach habitats, and clustered field sedge *(C. praegracilis*, Zones 5–8), which grows throughout western and central North America, even in high desert areas. The two species are hard to tell apart, which means they are frequently misidentified or mislabeled. Clustered field sedge, is more readily available for home gardeners.

According to Reed, both are adapted to long, dry summers and are rambunctious runners that can become weeding problems in garden beds. "How much water you provide depends on how lush you want them to look," he says. "Once established, even in southern California, you can water once every 10 days or twice a month and maintain modest growth and green all summer. They will stay put if it's dry, but will always seek out water; if there's a source nearby they'll run toward it."

Adaptable Texas sedge *(Carex texensis)* serves as a turfgrass replacement in this area of lawn at the Lady Bird Johnson Wildflower Center in Austin.

SAXON HOLT



Drought- and heat-tolerant sand dune or meadow sedge *(Carex pansa)* is widely used as a lawn substitute in California, as shown in this courtyard in Santa Barbara.

When using sedges as lawn substitutes, the expense and effort are all up front. Plant plugs six to 12 inches apart in weed-free, prepared ground and keep weeding and watering regularly until the sedge is established. The decision to mow the lawn or let it grow naturally needs to be made at the start. "If you let it reach its full height, it's difficult to mow, and the cut stems, which are slow to break new buds, will remain brown," says Reed. "But if you train it to be mown from the beginning, it will keep sending new growth out from the base."

PROMISING FUTURE

Landscape designer and author Claudia West, who is one of the principals at Phyto Studio, a landscape architecture firm in Washington, D.C., views sedges as one of those plants that play a key role in sustainable landscapes. "We need to move away from mulch and fill gaps in the landscape with plants to provide habitat and hold the soil," she says. "Sedges provide essential soil-building function and support wildlife. They may not be the showiest, but many are evergreen, so you see them in winter, green, lush and gorgeous."

The adaptability, usefulness, and beauty evident in what is currently only a handful of commonly available native sedges hints at the potential in this genus. "When people catch on to the diversity of colors, growth forms, and growing conditions, they will embrace them in a big way," Naczi predicts. "Any place you'd want to grow a plant, whether it's sunny or shady, wet or dry, or the soil is acidic or alkaline, there's a sedge for every spot."

Karen Bussolini is a photographer, writer, speaker, and eco-friendly garden coach based in South Kent, Connecticut. You can view her work at www.karenbussolini.com.

Sources

Greenlee and Associates, Brisbane, CA. *www.greenleeandassociates.com*. (Note there is a $500 minimum order.)
Prairie Moon Nursery, Winona, MN. *www.prairiemoon.com.*
Prairie Nursery, Westfield, WI. *www.prairienursery.com.*

Resources

The Encyclopedia of Grasses for Livable Landscapes by Rick Darke, Timber Press, Portland, OR, 2007.
The Illinois Wildflowers, *www.illinoiswildflowers.info/grasses/tables/table6.html*. (This site lists birds fed by *Carex* seeds.)
Planting in a Post-Wild World by Thomas Ranier and Claudia West, Timber Press, Portland, OR, 2015.