

# Back's Sedge



Carex backii



Photo credits: Troy Weldy

**Scientific Name** *Carex backii*  
Boott

**Family Name** Cyperaceae  
Sedge Family

## Did you know?

Back's sedge was first discovered in Connecticut in 1988 (Mehrhoff 1995), Massachusetts in 1997 (Bertin et. al 2002), and the southern Finger Lakes area of New York in 2004 (Werier 2004). Some think it has been overlooked due to its inconspicuous nature. The species is named in honor of Sir George Back (1796-1878).

## Summary

**Protection** Threatened in New York State, not listed federally.

This level of state protection means: listed species are those with: 1) 6 to fewer than 20 extant sites, or 2) 1,000 to fewer than 3,000 individuals, or 3) restricted to not less than 4 or more than 7 U.S.G.S. 7 ½ minute topographical maps, or 4) listed as threatened by U.S. Department of Interior.

**Rarity** G5, S2S3

A global rarity rank of G5 means: This species is demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery.

A state rarity rank of S2S3 means: Imperiled or Vulnerable in New York - Very vulnerable to disappearing from New York, or vulnerable to becoming imperiled in New York, due to rarity or other factors; typically 6 to 80 populations or locations in New York, few individuals, restricted range, few remaining acres (or miles of stream), and/or recent and widespread declines. More information is needed to assign a single conservation status.

## Conservation Status in New York

There are currently 16 known populations of *Carex backii* and approximately ten historical populations. This plant tends to prefer wooded sites with a shallow limestone bedrock. Since this is a somewhat specific requirement, habitat options are limited. Invasive species may pose a threat, but for now this threat has had minimal impacts. There are real concerns that swallowwort (*Cynanchum* spp.) will reduce or eliminate a few populations.

## Short-term Trends

About ten new locales for *Carex backii* have been found in the past 20 years. With a limited season to easily identify this plant and as an inconspicuous plant, these new locales probably represent populations that have been overlooked in the past. Approximately ten additional populations have not been seen in over 20 years but searches to most of these sites have not been conducted and original site location information is obscure. Of populations that have been documented more than once there does not appear to be any clear trends. As a speculative trend, the trend of this plant appears stable. Some may argue there is an increase in range, but this could just reflect overlooked populations.

## Long-term Trends

A few populations have been known for over 50 years but clear data on trends for these populations is lacking.

# Conservation and Management

## Threats

Overall most populations are not threatened. Exotics are currently and could potentially threaten a few sites. Trampling and human disturbances such as dumping, logging, and residential development are also potential threats at a couple of sites. Most of these threats are speculative and might not have a negative impact on populations.

## Conservation Strategies and Management Practices

At a few sites, if feasible, exotics including swallowwort (*Cynanchum* sp.) should be controlled. Trampling by ATV's and foot traffic should be monitored and restricted if necessary.

## Habitat

This sedge grows primarily in dry, rocky deciduous, mixed, or evergreen open forests or woodlands, often over limestone. It occurs on or adjacent to rocky ledges, rock outcrops, ridges, calcareous pavement barrens and woodlands, thickets, and sand plain thickets. Open canopied forests are preferred but it also grows in more forested as well as more open habitats. (New York Natural Heritage Program 2005). Dry, rocky, open, or shaded slopes, ridges, and barrens, in hardwood, mixed, or coniferous forests, including pine plantations, on acidic and calcareous substrates (Crins et al. 2002). In quite varied habitats, the species frequently occurs in mesic deciduous forests near streams and rivers. Soils often have a high organic content with an abundance of leaf litter. Signs of localized, natural disturbance are usually evident. It also grows in open, prairie habitats with scattered *Quercus macrocarpa*, on open granite outcrops, and along disturbed roadsides (Saarela and Ford 2001). Dry rocky or sandy woods and bluffs (Fernald 1970).

## Associated Ecological Communities

### Alvar Pavement Grassland

This community consists of exposed, flat limestone or dolostone pavement with grassy or mossy patches interspersed throughout. Some examples may be solely grassland with no pavement.

### **Alvar Shrubland**

A shrub-dominated community that has over 25% cover of tall, short, and dwarf shrubs. There are often deep crevices or grikes in the limestone pavement; trees and shrubs are often rooted in the grikes.

### **Alvar Woodland**

A subset of the limestone woodland community restricted to the alvar region in Jefferson County, New York.

### **Appalachian Oak-hickory Forest**

A hardwood forest that occurs on well-drained sites, usually on ridgetops, upper slopes, or south- and west-facing slopes. The soils are usually loams or sandy loams. This is a broadly defined forest community with several regional and edaphic variants. The dominant trees include red oak, white oak, and/or black oak. Mixed with the oaks, usually at lower densities, are pignut, shagbark, and/or sweet pignut hickory.

### **Calcareous Cliff Community**

A community that occurs on vertical exposures of resistant, calcareous bedrock (such as limestone or dolomite) or consolidated material; these cliffs often include ledges and small areas of talus.

### **Calcareous Shoreline Outcrop**

A community that occurs along the shores of lakes and streams on outcrops of calcareous rocks such as limestone and dolomite. The vegetation is sparse; most plants are rooted in rock crevices.

### **Limestone Woodland**

A woodland that occurs on shallow soils over limestone bedrock in non-alvar settings, and usually includes numerous rock outcrops. There are usually several codominant trees, although one species may become dominant in any one stand.

## **Associated Species**

Balsam Fir (*Abies balsamea*)  
Sugar Maple (*Acer saccharum*)  
Smooth Rock-cress (*Boechera laevigata*)  
Woodland Sedge (*Carex blanda*)  
Troublesome Sedge (*Carex molesta*)  
Pennsylvania Sedge (*Carex pennsylvanica*)  
Rosy Sedge (*Carex rosea*)  
Hidden Sedge (*Carex umbellata*)  
Shagbark Hickory (*Carya ovata*)  
Gray Dogwood (*Cornus racemosa*)  
*Crataegus* sp.  
Northern Bush-honeysuckle (*Diervilla lonicera*)  
Red Cedar (*Juniperus virginiana*)  
Common Woodrush (*Luzula multiflora*)  
Hophornbeam (*Ostrya virginiana*)  
Eastern White Pine (*Pinus strobus*)  
White Oak (*Quercus alba*)

Burr Oak (*Quercus macrocarpa*)  
 Red Oak (*Quercus rubra*)  
 Northern White Cedar (*Thuja occidentalis*)  
 Eastern Poison Ivy (*Toxicodendron radicans* ssp. *radicans*)  
 Barren Strawberry (*Waldsteinia fragarioides*)  
 Northern Prickly-ash (*Zanthoxylum americanum*)

## Identification Comments

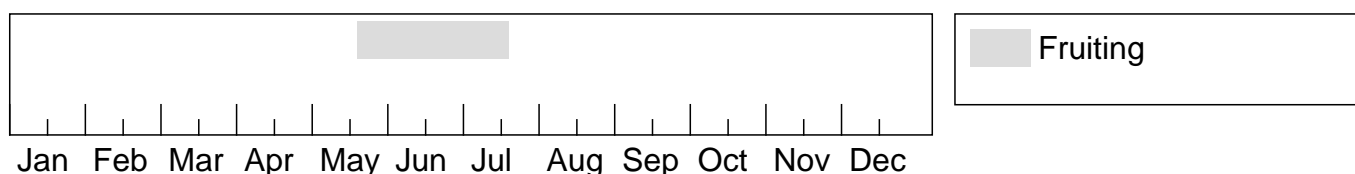
A densely tufted grass-like plant, this sedge has leaves 1.3-5.4 mm wide. The leaves are up to 37 cm long and the whole plant often appears somewhat flattened. The flowers and fruits, which occur in clusters 0.7-1.6 cm long, are borne on the tips of stalks which are shorter than the leaves. The flowers and fruits are inconspicuous because they are completely concealed by leaf like structures (scales) which surround each individual flower/fruit in a cluster. The best way to look for this plant is to search for these leafy scales.

### Best Life Stage for Identifying This Species

This species can be identified in flower although fruiting characteristics are best. A complete reproductive shoot with mature perigynia should be collected to verify the identification.

### The Best Time to See

The species is in fruit from late May to mid July although fruits are shedding by the end of this season making identification more complicated at this time. Surveys for this species should be done from late May through June.



**The time of year you would expect to find Back's Sedge in New York.**

### Similar Species

In New York there are two (*Carex jamesii* and *C. willdenowii*) and perhaps a third (*C. juniperorum*) species that are somewhat closely related and similar morphologically. *Carex backii* can be distinguished from all three by its wider pistillate scales (2-6.5 mm wide compared to 1.6-2.22 mm for *C. willdenowii*, 1.4-3.0 mm for *C. jamesii*, and 1.2-3.0 mm for *C. juniperorum*) which completely conceal the perigynia in *C. backii* as compared to not concealing the perigynia in these other species. These scales and particularly the upper scales have narrow hyaline or green margins in *C. backii* as well as *C. juniperorum* but have broad hyaline margins in *C. willdenowii* and *C. jamesii*. *Carex backii* also has 2-3 staminate flowers per terminal spike as compared to 3-29 for *C. willdenowii*, 3-13 for *C. jamesii*, and 5-21 for *C. juniperorum*. In addition, *C. backii* has clavate, minutely papillose

stigmas as compared to filiform, strongly papillose stigmas of *C. willdenowii*, *C. jamesii*, and *C. juniperorum*.

## Conservation Comments

The closely related species *Carex saximontana* (from the Great Plains) has sometimes been considered a synonym of *C. backii* (e.g. Gleason and Cronquist 1991). Recent work has shown that the two are distinct and that a third recently described species, *C. cordillerana* (from west of the Rockies), may have led to previous confusion regarding the distinctiveness of *C. saximontana* (Saarela and Ford 2001).

## Taxonomy

**Kingdom** Plantae

└ **Phylum** Anthophyta

└ **Class** Monocots (Monocotyledoneae)

└ **Order** Cyperales

└ **Family** Cyperaceae (Sedge Family)

## Additional Common Names

Rocky Mountain Sedge  
Sedge

## Synonyms

*Carex durifolia* (Bailey)

## Additional Resources

### Links

#### New York Flora Atlas

<http://www.newyork.plantatlas.usf.edu/Plant.aspx?id=939>

#### USDA Plants Database

<http://plants.usda.gov/java/nameSearch?mode=sciname&keywordquery= CAREX+BACKII>

#### NatureServe Explorer

<http://natureserve.org/explorer/servlet/NatureServe?searchName=CAREX+BACKII>

#### Google Images

<http://images.google.com/images?q=CAREX+BACKII>

#### Flora of North America

[http://efloras.org/florataxon.aspx?flora\\_id=1&taxon\\_id=242357067](http://efloras.org/florataxon.aspx?flora_id=1&taxon_id=242357067)

## Best Identification Reference

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