

# Bent Sedge



Carex styloflexa line drawing

**Scientific Name** *Carex styloflexa*  
Buckl.

**Family Name** Cyperaceae  
Sedge Family

## Did you know?

Styloflexa means with a curved style (Fernald 1970). Since the style is enclosed in the beak of the fruit it naturally follows the curve of the beak.

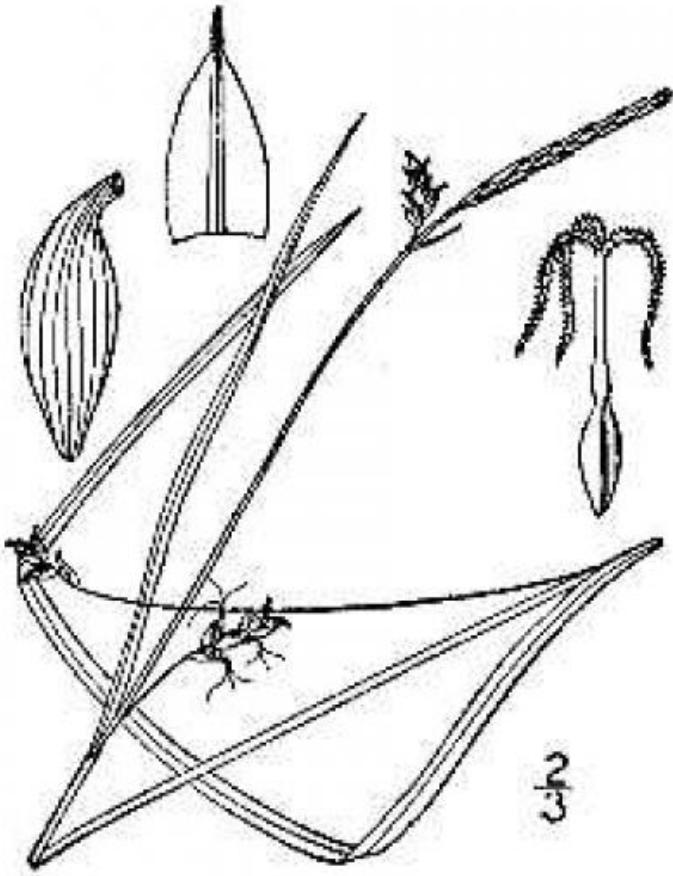


Photo credits: Britton, N.L., and A. Brown (1913); downloaded from  
USDA-Plants Database.

## Summary

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

This level of state protection means: listed species are those with: 1) 5 or fewer extant sites, or 2) fewer than 1,000 individuals, or 3) restricted to fewer than 4 U.S.G.S. 7 ½ minute topographical maps, or 4) species listed as endangered by U.S. Department of Interior.

**Rarity** G4G5, S1

A global rarity rank of G4G5 means: Apparently or Demonstrably Secure globally - Uncommon to common in the world, but not rare; usually widespread, but may be rare in some parts of its range; possibly some cause for long-term concern due to declines or other factors. More information is needed to assign a single conservation status.

A state rarity rank of S1 means: This plant is endangered/critically imperiled in New York

because of extreme rarity (typically 5 or fewer populations or very few remaining individuals) or is extremely vulnerable to extirpation from New York due to biological factors.

## Conservation Status in New York

There are only two known populations and ten historical locations. As a plant near the northern edge of its range, it likely has always been rare within New York. Many of the historical collections are from areas that are now heavily developed.

## Short-term Trends

Most populations are only known from specimens collected over 70 or more years ago. However, this does not necessarily indicate a downward trend. As a difficult species to identify, this sedge may be overlooked. More monitoring is needed on the known populations and better searching is needed statewide to determine if more plants are present. Until this information is garnered, no clear assessment can be made on the short-term trends.

## Long-term Trends

Six historical populations are believed extirpated due to human development. Another seven populations have not been seen in over 70 years but the exact locations of these populations are unknown. The only two known extant populations were first discovered within the past 20 years. Since many *Carex* species and especially ones in section *Laxiflorae* are often overlooked or identified incorrectly, it can be assumed that these two new populations were probably overlooked in the past. Overall, long term trends indicate that this sedge is probably declining in New York, mostly due to habitat alteration. If additional populations are found and protected, this apparent downward trend may be stabilized.

# Conservation and Management

## Threats

One extant population of *Carex styloflexa* may be threatened by trampling as it is found along an area heavily used for recreational fishing activities. This site should be monitored more to determine the true threat. At least six sites are believed extirpated due to human development. All of these sites are from Long Island and/or the greater metropolitan NYC area. Additional historical populations are known from this area and, although specific locality information is not always available, may also be threatened by habitat destruction caused by residential and/or commercial human development.

## Research Needs

Since *Carex styloflexa* is a member of a notoriously difficult section of *Carex* it would be good to verify all relevant specimens, especially those from disjunct populations in Rensselaer, Madison, and Tioga Counties.

## Habitat

This sedge mostly occurs in wet habitats often along the edges of streams. It has also been documented in New York from wet pine barrens, damp thickets, swampy woods on the border of a brook, edge of rich woods, and a sphagnum bog. There is also one specimen known from thin soil on limestone ledges in woods. This habitat information is suspect (New York Natural Heritage Program 2005). Wet, sandy, acidic soils, around springs, seeps, and small streams, under deciduous or mixed deciduous-evergreen forests (Bryson and Naczi 2002). Wet woods and bogs, often in sandy or silty soil (Gleason and Cronquist 1991). Low woods, wet moss, peaty spring-heads, etc. (Fernald 1970).

### **Associated Ecological Communities**

#### **Floodplain Forest**

A hardwood forest that occurs on mineral soils on low terraces of river floodplains and river deltas. These sites are characterized by their flood regime; low areas are annually flooded in spring, and high areas are flooded irregularly.

#### **Red Maple-hardwood Swamp**

A hardwood swamp that occurs in poorly drained depressions, usually on inorganic soils. Red maple is usually the most abundant canopy tree, but it can also be codominant with white, green, or black ash; white or slippery elm; yellow birch; and swamp white oak.

### **Other Probable Associated Communities**

Coastal plain poor fen  
Pine barrens vernal pond  
Red maple-sweetgum swamp  
Shallow emergent marsh

### **Associated Species**

Tussock Sedge (*Carex stricta*)  
Coast Pepper-bush (*Clethra alnifolia*)  
Climbing Hempweed (*Mikania scandens*)

## **Identification Comments**

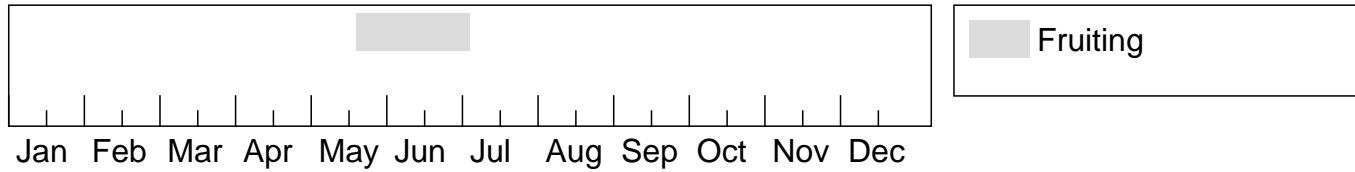
A grass like plant, this sedge is a densely tufted perennial. It has leaves that arise from the base of the plant and along reproductive stems (culms). The leaves are narrow, green to yellow-green and flat. It has 3-4 clusters of flowers/fruits (spikes) the lowest on stalks arising from the lower 1/3 of the culm. The flowering stems bear one slender male spike above the two to five, wider, few-flowered female spikes (Bryson and Naczi 2002).

### **Best Life Stage for Identifying This Species**

The species needs to be in immature to mature fruit for proper identification. Ample specimens are also helpful in correct identification.

## The Best Time to See

*Carex styloflexa* is in immature to mature fruit from late May through June. The best time to survey for this species is during this time period.



The time of year you would expect to find Bent Sedge in New York.

## Similar Species

*Carex styloflexa* is a member of the section *Laxiflorae* which has a few other species in New York (*C. albursina*, *C. blanda*, *C. gracilescens*, *C. laxiflora*, *C. leptonervia*, *C. ormostachya*, and *C. striatula*). Some of these species are at least superficially similar although *C. styloflexa* is a fairly distinctive member of this group.

*Carex gracilescens* and *C. ormostachya* have red/purple lower sheath bases. *Carex albursina* often has wider leaves ranging from 10-38(-62) mm wide compared to up to 14 mm wide for *C. styloflexa*. *Carex leptonervia* has smaller perigynia (2.2-3.2 mm long compared to 3.5-5.5 mm long for *C. styloflexa*) and less conspicuous and fewer (8-18 compared to (22-)25-32 for *C. styloflexa*) nerves on the perigynia. *Carex blanda* has smaller perigynia (2.5-3.8(-4.1) mm long compared to 3.5-5.5 mm long for *C. styloflexa*) with an abruptly bent short beak (0.2-0.6 mm long) compared to a more gradually curved longer beak (0.9-1.5 mm long). *Carex striatula* and *C. laxiflora* have perigynia ascending compared to spreading; lateral spikes 22-62 and 9-33 mm long respectively compared to 6-9(-15) mm long for *C. styloflexa*; and they have shorter peduncles of proximal lateral spikes 1.4-3.3(-5.3) times as long as the spikes they subtend compared to 4.6-14 times as long as the spikes they subtend for *C. styloflexa* (Bryson and Naczi 2002).

## Taxonomy

Kingdom Plantae

└ Phylum Anthophyta

└ Class Monocots (Monocotyledoneae)

└ Order Cyperales

└ Family Cyperaceae (Sedge Family)

## Additional Common Names

Sedge

# Additional Resources

## Links

### USDA Plants Database

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

### NatureServe Explorer

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

### Google Images

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

### Flora of North America

[http://efloras.org/florataxon.aspx?flora\\_id=1&taxon\\_id=242357562](http://efloras.org/florataxon.aspx?flora_id=1&taxon_id=242357562)

### New York Flora Atlas

<http://www.newyork.plantatlas.usf.edu/Plant.aspx?id=1190>

## Best Identification Reference

Bryson, C.T. and R.F.C. Naczi. 2002. *Carex* Linnaeus sect. *Laxiflorae* (Kunth) Mackenzie. Pages 431-440 in Flora of North America Editorial Committee (editors), *Flora of North America, north of Mexico, Volume 23, Magnoliophyta: Commelinidae (in part): Cyperaceae*. Oxford University Press, New York, New York, USA. 608pp + xxiv.

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