

Manitoba's Species At Risk

Threatened



Any native Manitoba species likely to become endangered or at risk due to low or declining numbers in Manitoba if the factors affecting it don't improve. Threatened species are declared as such by regulation under the *Endangered Species Act*

Western spiderwort

Tradescantia occidentalis

Western spiderwort (*Tradescantia occidentalis*) is a provincially and nationally Threatened plant found in Manitoba, Saskatchewan, Alberta and 19 American states. It is a herbaceous perennial that can grow to a height of 10 to 50 cm (four to 20 inches). Its slender stem is swollen where the leaves are attached. The leaves can be up to 30 cm (12 inches) long and 0.4 to 12 mm (up to 0.5 inch) wide, and are folded in half lengthwise. The plant's fleshy roots are an adaptation to dry environments.

Up to 25 floral buds are arranged in a cluster at the top of the stem. On sunny days, one or two flowers will open in the early morning and close by mid-day. Flowers may remain closed on cool, overcast days. Flowers have three rounded petals, each seven to 15 mm (0.25 to 0.5 inch) long and usually blue to purple-coloured. Western spiderwort is not mistaken for many other plants, since there are no other members of this family native to Western Canada. Some close relatives of Western spiderwort are cultivated as ornamentals, but rarely escape from gardens.

Habitat

In Manitoba, Western spiderwort grows only in sandy soils, on open to partially stabilized dune systems. The plants are most often found on south-facing slopes, and on the crests of slopes. Western spiderwort favours areas with sparse vegetation but can also grow among small shrubs, especially in grazed areas.

Life History

Flowers of Western spiderwort appear in late June to early July, and are pollinated by a variety of insects, most commonly by sweat bees. Each flower lasts one day. Seedpods appear after the fertilized flowers have

dropped their petals. The capsules begin to break open about three weeks after the flowers appear, releasing between one and six seeds. Seeds tend to fall close to the parent plant, so that plants often seem to grow in clumps. Where Western spiderwort occurs on a slope, these seeds may be dispersed downslope by rain, wind or snow melt.

In autumn, once flowering is complete, the old aboveground parts dry up and new shoots begin to grow from the base of the stem. Many of these new shoots will survive the winter and resume growth in spring. Spiderwort also reproduces by rooting at the swollen joints.

Distribution

Western spiderwort's range extends from the Canadian prairies, south to Arizona in the west and from Wisconsin to Louisiana in the east. Its range likely extends south into Mexico, but no information is available on its distribution there. Within Canada, it is found at four sites in the three prairie provinces. Alberta and Saskatchewan each have a single population. In Manitoba, there are two populations in the southwestern portion of the province. The largest population of Western spiderwort in Canada occurs in the Routledge Sandhills. Manitoba's second population is found in the Lauder Sandhills.

Status

Western spiderwort has been assigned a rank of very rare (S1) by the Manitoba Conservation Data Centre, and is considered very rare in Canada. Rangewide, the species is considered to be secure (G5) by NatureServe. Threats include changes in land management practices, especially burning and grazing. Light grazing by cattle does not seem to harm spiderwort;



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Cool Facts

Spiderwort plants get their name from the gel-like substance exuded from broken leaves or stems that can be stretched to form long strands. When the sticky substance hardens after being exposed to air, it forms spider web-like threads.

Flowers of Western spiderwort only last for a few hours. Most plants in Manitoba have bluish flowers, but colour ranges from pure white to pink and shades of blue and purple. Some flowers may even be streaked pink and purple.

In Manitoba, Western spiderwort has been found on only six quarter-sections of land, and occupies less than 2.5 square kilometres (1 square mile). This very localized distribution, along with its sensitivity to disturbance, are causes for concern.

The partially stabilized sandhill habitat required by Western spiderwort is in a delicate balance. If there is too much disturbance, the sand dunes will destabilize and most plants will disappear. If there is too little disturbance, dunes will become completely covered with grasses, shrubs and eventually trees, and species like the Western spiderwort will disappear from the area.



however, trampling may cause problems. Western spiderwort requires open sand to thrive. Fire suppression allows vegetation to encroach, stabilizing dune systems and degrading spiderwort habitat. The continuing spread of weedy invasive species, especially Leafy spurge, is also a major concern for the long-term health of Western spiderwort. Petroleum exploration in southwestern Manitoba poses a significant threat to spiderwort habitat. Unauthorized use of off-road vehicles continues to be a problem in both the Routledge and Lauder Sandhills.

Western spiderwort was listed as Threatened in 1994 by regulation under Manitoba's *Endangered Species Act*. Spiderwort has also been assigned a status of Threatened by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).

Stewardship and recovery

A key component of recovery efforts is the protection of critical habitat for the species. This species occurs mostly on privately owned land. One important site for Western spiderwort in the Routledge Sandhills in

Manitoba is being preserved voluntarily by the landowners. The Manitoba Habitat Heritage Corporation purchased a 64 hectare (160 acre) property in the Lauder Sandhills to preserve habitat for sandhill species, including Western spiderwort.

Get involved in recovery

If you have Western spiderwort on your property, congratulations. Your land management skills have helped to maintain the population of one of the rarest plants in Canada. Please contact Manitoba Conservation at one of the numbers below if you would like more information on what you can do to further enhance your land for this and other native Manitoba plant and animal species. This could include maintaining a light grazing regime, and attempting to prevent the spread of leafy spurge.

**Manitoba Conservation
Wildlife and Ecosystem Protection Branch**
Box 24, 200 Saulteaux Crescent
Winnipeg MB R3J 3W3
(204) 945-7775
www.gov.mb.ca/natres/wildlife/index.htm

Manitoba Conservation Regional Office
Western Region
Brandon
(204) 726-6450

Partners in production of this fact sheet:
Manitoba Conservation,
Wildlife and Ecosystem Protection Branch
Environment Canada, Canadian Wildlife Service
Manitoba Habitat Heritage Corporation

Extirpated Species

Any species once native to Manitoba that has disappeared through all of its Manitoba range. Extirpated species are declared as such by regulation under the *Endangered Species Act*.

Endangered Species

Any native Manitoba species threatened to disappear through all or most of its Manitoba range. Endangered species are declared as such by regulation under the *Endangered Species Act*.

Threatened Species

Any native Manitoba species likely to become endangered or at risk due to low or declining numbers in Manitoba if the factors affecting it don't improve. Threatened species are declared as such by regulation under the *Endangered Species Act*.

Vulnerable Species

Species not regulated under the *Endangered Species Act* but which could eventually be considered Endangered or Threatened if the factors affecting them do not improve.