

**Scientific Name:** *Tradescantia occidentalis*

**Common Name:** Western Spiderwort

**Element ID:** 12338

## Taxonomy

**Taxonomic class:** Monocotyledoneae

**Order:** Commelinales

**Family Name:** Commelinaceae

**Genus Name:** Tradescantia

**Family Common Name:** Spiderwort Family

**Genus Common Name:**

### Taxonomic Comments:

## Ranking and Protection Status

**Global Rank:** G5

**COSEWIC Status:** Threatened

**Provincial Rank:** S1

**Provincial Protection Status:** ENDANGERED

## Diagnostic Characteristics

### Identification Comments:

Western Spiderwort is a perennial species belonging to the Spiderwort or Commelinaceae family. It has a mostly straight stem that bends slightly where each leaf joins. The plant is between 10 and 50 centimetres tall.

The plant's leaves are grasslike and alternate measuring 10 to 30 centimetres long and 0.4 to 1.2 centimetres wide. The leaves are folded lengthwise.

Western Spiderwort produces flowers that are arranged in clusters of up to 25 individual flowers on stalks that hang over in bud. Each flower has three rounded petals that are between seven and 15 millimetres long. The flowers range in colour from rose to blue and may even be white. Within the flower cluster, only one flower opens daily. Very early in the morning it opens, within a few hours it closes, wilts and the petals are shed.

The fruit is an oblong capsule divided into three parts. Each part produces one or two grey seeds that measure two to four millimetres long.

Spiderwort plants derive their name from the sticky, stringy material that they secrete when their stem is broken. Once this sticky substance hardens, it forms a cobweb-like material.



Elchuk, Candace © rpr

### Lookalikes:

Currently no identified similar looking species

## Habitat Information and Comments

### Habitat Comments:

In Canada, populations of Western Spiderwort grow on dry sand hill environments in the mixed grass prairie. Western Spiderwort grows best on southwest facing slopes of partially stabilized sand in sand hill areas. Western Spiderwort is also found growing in active sand and prefers areas with sparse vegetation.

### Threat Comments:

TH-1: SEMI-STABILIZED SANDHILL GRASSLANDS. GRAZED PROVINCIAL PARK. Loss of habitat is the main factor causing the decline in Western Spiderwort populations. The conversion of native prairie into agricultural lands has greatly decreased the amount of suitable habitat for the species. Currently, petroleum exploration is threatening to wipe out the largest Canadian population in Manitoba.

A weed called Leafy Spurge (*Euphorbia esula*) is also threatening the remaining Western Spiderwort populations. It is an exotic weed that spreads very quickly and forms dense stands that exclude other plants. This excessive vegetation causes shading and stabilizes the slopes of the dunes. Western Spiderwort cannot compete under these conditions.

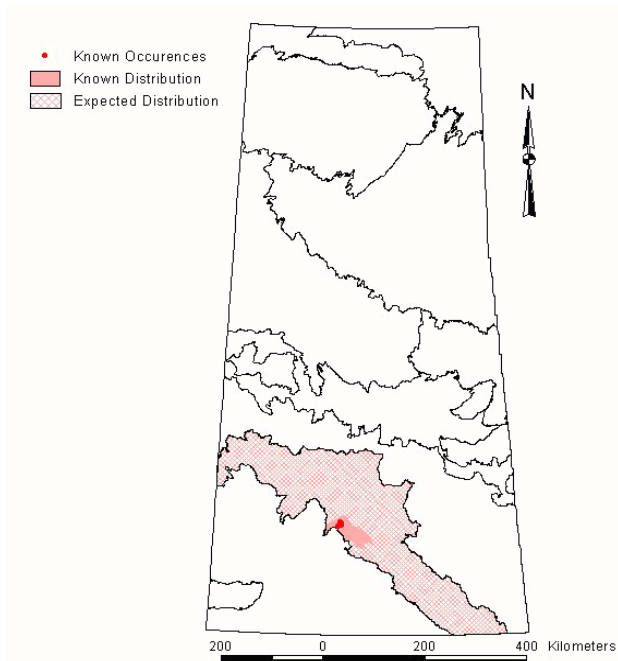
### Protection Comments:

Avoid destruction of native sand hill prairie habitat through cultivation of land for agricultural purposes. Soil disturbance, such as sand extraction and/or oil exploration and extraction, should be avoided in or near areas of occupied habitat. Avoid activities that would result in an increase in invasive species (e.g. leafy spurge).

Suitable habitat for Western Spiderwort must be secured in order for the species to survive. Continued monitoring as well as detailed research of the species and its habitat is required to determine more about the plant and the factors that limit its survival.

Contact the Saskatchewan Conservation Data Centre to discuss specifics of a particular site.

Saskatchewan Distribution



Rural Municipalities:

HURON (SK)  
 MAPLE BUSH (SK)

Range Extent Comments:

RR-1: In Saskatchewan it can be encountered mainly in the eastern block of the Douglas Provincial Park and the Elbow pasture managed area. This species was observed once in the western block of the Douglas Provincial Park.

Phenology

Time of Year

June (2nd half)  
 July (1st half)

Phenology

Flowering  
 Flowering

Phenology Comments:

Western Spiderwort usually flowers in late June and early July. In Saskatchewan, it has been known to bloom in mid-June and can be finished flowering by early July. Western Spiderwort reproduces either by seed or by rooting at the joints of the stem.

Reproduction and Ecology Comments

Reproduction Comments:

Currently no reproduction notes for this species.

Management Needs:

Informing landowners of the importance of conserving habitat for western spiderwort.  
 Controlling leafy spurge populations in conjunction with light grazing and controlled burns to limit the encroachment of aspen into grassland areas.  
 Removing encroaching woody vegetation may be beneficial, but care must be taken not to destabilize the dunes to too large an extent.  
 Signing a Conservation Agreement or easement that will protect the species and its habitat while allowing continued, sustainable use of the land (NCC Blueprints project, 2005).  
 In Saskatchewan, the population is monitored during the flowering season and sheep-grazing is permitted in the eastern end of the Elbow PFRA Pasture to help reduce the leafy spurge population.

Management Comments:

Activity restrictions require year round **low** intensity activity be limited to **foot traffic only** adjacent to populations, **medium** intensity activities\* should occur only at distances greater than **25 metres** from the population and **high** intensity activities\* at distances greater than **50 metres** from the population.

\*Examples of **medium** intensity activity include small vehicles <1 ton, ATVs, operating oil or gas wells, pipelines, trucks>1 ton (gravel, oil, grain), tractors (including farm tractors), pipeline construction (diameters <1 foot), operating compressor station or battery.

\*\*Examples of **high** intensity activity include road construction, roads, drilling rigs, mines and quarries, construction of compressor station or battery, forest harvest, large-diameter pipeline construction, seismic exploration, blasting, rock crushing, asphalt batching, gravel pit.

References

<u>Reference ID</u>	<u>Citation</u>
15678	Godwin, B. and Thorpe, J. 2004. PFRA Rare Plant Inventory Pilot Project. Grassland and Forest Ecology Section. Environment/Minerals Division. SRC Pub No. 11673-1E04.
19546	COSEWIC 2002. Status report on the Western Spiderwort ( <i>Tradescantia occidentalis</i> ) in Canada. Ottawa, ON.