Southern Yellow Flax

Linum medium var. texanum inflorescence

Photo credits: *Stephen M. Young*

Scientific Name *Linum medium var. texanum* (Planch.) Fern.

Family Name Linaceae
Flax Family

Did you know?
Even though Linum medium var. texanum is a variety of the species, the variety medium has double the chromosome number (n=36 verses n=18) and could be treated better as a separate species (Harris 1968). Variety texanum was described based on a specimen from Texas even though it is at the edge of its range there (Fernald 1935).

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 ? minute topographical maps, or 4) listed as threatened by U.S. Department of the Interior.

Rarity G5T5, S2

A global rarity rank of G5T5 means: Secure globally - Both the species as a whole and the subspecies/variety are common in the world; widespread and abundant (but may be rare in some parts of its range).
A state rarity rank of S2 means: This plant is threatened/imperiled in New York because of rarity (typically 6-20 populations or few remaining individuals) or is vulnerable to extirpation from New York due to biological factors.

Conservation Status in New York

There are nine existing populations but only four of them are ranked good to excellent. Most populations have fewer than 100 plants and are threatened by succession or lack of proper management. There are 10 historical populations, but most of these occur in highly developed areas so the probability of relocating them is low.

Short-term Trends

The short-term trends seem stable to slightly declining as most existing populations have not had dramatic changes in the last 20 years. There are a couple of populations that have been checked again and their numbers were down from previous years.

Long-term Trends

During the last 80 years populations on Western Long Island have disappeared while new populations were found in central and eastern Long Island in the last 20 years. This species has never been common in New York with population numbers hovering around 10 statewide.

Conservation and Management

Threats

Populations are threatened by direct development of their habitat and by succession of open grassland and meadow habitats.

Conservation Strategies and Management Practices

Open areas need to be maintained without directly damaging plants. This can be done at the appropriate time of year after seed has been disbursed.

Research Needs

Find out if this plant can recover from succession by seed banking. Discover what is limiting the spread of this species since it occurs in artificial and common habitats.

Habitat

The existing sites for this species in New York are mostly early successional, artificially-created habitats such as powerline right-of-ways, roadsides, and pasturelands (New York Natural Heritage Program 2007). Dry or damp sterile open soil (Fernald 1970). Dry upland woods and beaches (Gleason 1952). Dry upland woods and beaches (Gleason & Cronquist 1991).

Associated Ecological Communities

Pastureland

Agricultural land permanently maintained (or recently abandoned) as a pasture area for livestock.

Pitch Pine-scrub Oak Barrens

A shrub-savanna community that occurs on well-drained, sandy soils that have developed on sand dunes, glacial till, and outwash plains.

Successional Old Field
A meadow dominated by forbs and grasses that occurs on sites that have been cleared and plowed (for farming or development), and then abandoned or only occasionally mowed.

Successional Shrubland
A shrubland that occurs on sites that have been cleared (for farming, logging, development, etc.) or otherwise disturbed. This community has at least 50% cover of shrubs.

Associated Species

Field Pussytoes (*Antennaria neglecta*)
Sweet Vernal Grass (*Anthoxanthum odoratum*)
Gray Birch (*Betula populifolia*)
Porcupine Sedge (*Carex hystericina*)
Variable Sedge (*Carex polymorpha*)
Swan Sedge (*Carex swanii*)
Velvety Sedge (*Carex vestita*)
Sweet Fern (*Comptonia peregrina*)
Silky Dogwood (*Cornus amomum*)
Flattened Oatgrass (*Danthonia compressa*)
Purple Lovegrass (*Eragrostis spectabilis*)
Flat-top Fragrant Goldenrod (*Euthamia graminifolia*)
Virginia Strawberry (*Fragaria virginiana*)
Teaberry (*Gaultheria procumbens*)
Orange-grass St. John's-wort (*Hypericum gentianoides*)
Larger Canadian St. John's Wort (*Hypericum majus*)
Torrey's Rush (*Juncus torreyi*)
Red Cedar (*Juniperus virginiana*)
Northern Bayberry (*Myrica pensylvanica*)
Switchgrass (*Panicum virgatum*)
Pitch Pine (*Pinus rigida*)
Field Milkwort (*Polygala sanguinea*)
Seneca Snakeroot (*Polygala senega*)
Old-field Cinquefoil (*Potentilla simplex*)
Eastern Bracken (*Pteridium aquilinum*)
Slender Mountain-mint (*Pycnanthemum tenuifolium*)
Scrub Oak (*Quercus ilicifolia*)
Sassafras (*Sassafras albidum*)
Little Bluestem (*Schizachyrium scoparium*)
Southern Arrowwood (*Viburnum dentatum*)
Vitis

Identification Comments

Southern Yellow Flax is a perennial, glabrous herb 2-7 dm tall. It has alternate (except sometimes for the lowermost 1 or 2 nodes), entire, and lance-shaped leaves up to 2.5 cm

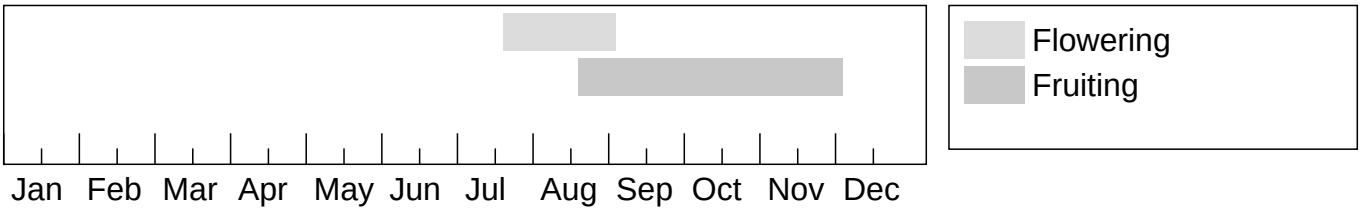
long, the upper ones pointed at the tips. The flowers are borne on stiffly-ascending branches. They have light yellow petals 4-8mm wide that are fused at the base. The inner sepals have glandular bases. The fruit are small (2 mm) dry, rounded capsules, commonly purple above (Rhoads and Klein 2002, Gleason and Cronquist 1991).

Best Life Stage for Identifying This Species

This species is best identified when fruiting.

The Best Time to See

Linum medium var. texanum flowers from mid-July to mid-August, and the fruits can persist to late November.



The time of year you would expect to find Southern Yellow Flax in New York.

Similar Species

Linum sulcatum, L. virginianum, L. striatum, and L. intercursum are the other yellow-flowered flax species found in New York. Linum sulcatum is an annual species, and its leaves have dark, stipular glands at the leaf bases (Voss 1985). L. virginianum and L. striatum differ from L. medium by having opposite leaves at several of the lower nodes, more spreading infloresences, and inner sepals which are not glandular.

Linum intercursum is similar in habit, stature and foliage to L. medium, but the fruit is ovoid with the carpels pointed at the top, and usually yellow, while L. medium is rounded with flat-topped carpels, and usually purple (Rhoads and Block 2000, Voss 1985, Gleason and Cronquist 1991).

Taxonomy

Kingdom Plantae
└ **Phylum** Anthophyta
└ **Class** Dicots (Dicotyledoneae)
└ **Order** Linales
└ **Family** Linaceae (Flax Family)

Synonyms

Linum medium var. *medium*

Additional Resources

Links

Missouri Plants
http://www.missouriplants.com/Yellowalt/Linum_medium_page.html
USDA Plants Database
http://plants.usda.gov/java/nameSearch?mode=sciname&keywordquery=LINUM+MEDIUM+VAR+TEXANUM
New York Flora Atlas
http://www.newyork.plantatlas.usf.edu/Plant.aspx?id=6608
NatureServe Explorer
http://natureserve.org/explorer/servlet/NatureServe?searchName=LINUM+MEDIUM+VAR+TEXANUM
Google Images
http://images.google.com/images?q=LINUM+MEDIUM+VAR+TEXANUM

Best Identification Reference

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