

Euphorbia esula Herbaceous Vegetation

COMMON NAME	Leafy Spurge Herbaceous Vegetation
SYNONYM	Leafy Spurge Meadow
PHYSIOGNOMIC CLASS	Herbaceous Vegetation (V)
PHYSIOGNOMIC SUBCLASS	Perennial forb vegetation (V.B)
PHYSIOGNOMIC GROUP	Temperate or subpolar perennial forb vegetation (V.B.2)
PHYSIOGNOMIC SUBGROUP	Natural/Semi-natural (V.B.2.N)
FORMATION	Tall temperate or subpolar perennial forb vegetation (V.B.2.N.a)
ALLIANCE	(CIRSIIUM ARVENSE, EUPHORBIA ESULA, MELILOTUS SPP.) - MIXED FORBS HERBACEOUS ALLIANCE

CLASSIFICATION CONFIDENCE LEVEL 3

USFWS WETLAND SYSTEM

GLOBAL RANGE

Theodore Roosevelt National Park

Although a few patches of *Euphorbia esula* can be found in the North Unit of Theodore Roosevelt National Park, the community type is best developed in the South Unit. It is especially prominent along the floodplain of the Little Missouri River and its major tributaries, especially west of the River. Stands are becoming increasingly more common on the upland sites in the area of the Petrified Forest Plateau of the South Unit.

Globally

Stands dominated by *Euphorbia esula* are increasingly common across the northern Great Plains.

ENVIRONMENTAL DESCRIPTION

Theodore Roosevelt National Park

Euphorbia esula is the most aggressive and troublesome exotic plant within the Park. Although stands can be found in almost any environmental setting in Theodore Roosevelt NP, the highest incidence of *E. esula* occurs along the floodplain of the Little Missouri River and its major tributaries. The more mesic soil moisture conditions associated with these habitats greatly facilitates the establishment and growth this species. Further, seed dispersal is enhanced by flowing water associated with these systems, which greatly accelerates the expansion of *E. esula* throughout the drainages and into the uplands.

Globally

Stands occur in fields, roadsides, stream valleys, open woodlands, waste places, and native prairie, on a variety of soils (Great Plains Flora Association 1986).

MOST ABUNDANT SPECIES

Theodore Roosevelt National Park

<u>Stratum</u>	<u>Species</u>
Herbaceous	<i>Euphorbia esula</i>

Globally

<u>Stratum</u>	<u>Species</u>
----------------	----------------

CHARACTERISTIC SPECIES

Theodore Roosevelt National Park

Euphorbia esula

Globally

VEGETATION DESCRIPTION

Theodore Roosevelt National Park

The community is dominated almost exclusively by *Euphorbia esula*. The plants, depending on soil moisture conditions, are 0.5 to 2.0 m in height. Foliar cover is usually 100% in well developed patches. There are only a few native species, most notably *Carex filifolia*, that are able to persist in heavily infested areas (Trammell 1994). Native ungulates in the Park avoid sites heavily infested with leafy spurge (Trammell and Butler 1995).

Globally

The vegetation is dominated by medium-tall (0.5 - 1 m) forbs. The dominant forb is *Euphorbia esula*, a naturalized species from

USGS-NPS Vegetation Mapping Program
Theodore Roosevelt National Park

Eurasia (Great Plains Flora Association 1986). Other weedy species may occur as well, but native species are generally less than 10% cover. Native species may include mixed-grass prairie grasses, such as *Pascopyrum smithii* and *Stipa comata*, as well as others. This type is a serious pest of rangeland, since it is unpalatable to cattle.

CONSERVATION RANK GW. This type is widely naturalized from Eurasia across the northern United States and Canada, where it has invaded on disturbed areas (Barkley 1986). It is not planted by humans.

DATABASE CODE CEGL005268

COMMENTS

REFERENCES

- Trammell, M.A. 1994. Exotic plants of Theodore Roosevelt National Park: Extent, distribution and ecological impact. M.A. Thesis. University of South Dakota. Vermillion, SD.
- Trammell, M.A. and J.L. Butler. 1995. Effects of exotic plants on native ungulate use of habitat. *Journal of Wildlife Management*. 59:808-815.