

**H-SMRT Hydrologically Disturbed Seasonal *Polygonum* Vegetation
Smartweed species Seasonally Flooded Herbaceous Alliance**

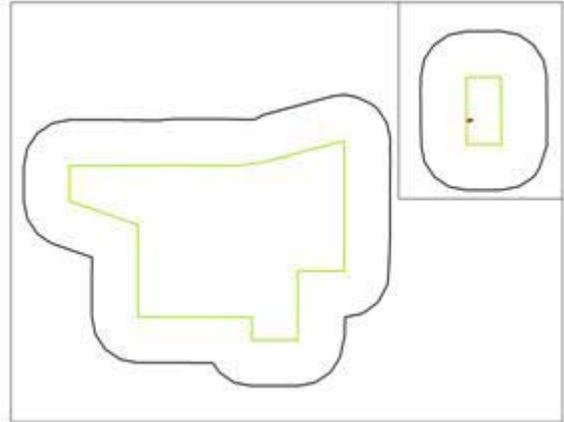
Associations and Alliances

Hydrologically Disturbed Seasonal *Polygonum* Vegetation

Common Species

Polygonum lapathifolium
Polygonum bicorne
Conium maculatum
Rumex altissimus

Range and Distribution



Description

This type occurs in two distinct areas, along the Pawnee River bottom in the main unit of Fort Larned National Historic Site and where a small drainage has been impounded by the roadbed on the west side of the remote Santa Fe Trail Ruts Site. Due to the timing of the imagery only the site at the Ruts Site was mapped. The extensive stands in the Pawnee River are seasonal and this stream was filled with water when the imagery was acquired. Damming of the Pawnee River upstream and downstream from FOLS has led to silt accumulation and seasonal standing water in the river bed. Water depth can vary from 0 to 1 m. Depending on the water depth and clarity, smartweed vegetation can be found seasonally in all but the deepest channel of the river bed. Basically the whole river corridor mapped as Streams / River could be mapped as this type. At the Ruts Site, there is little bare ground or standing water. Other than a few annual sunflowers (*Helianthus annuus*) along the fence, the vegetation is less than 1 m. tall.

Photo Signature Examples

Representative Ground Photo



Hydrologically Disturbed Seasonal *Polygonum* Vegetation

COMMON NAME	Smartweed species	Seasonally Flooded Herbaceous Alliance
PHYSIOGNOMIC CLASS	V	Herbaceous vegetation
PHYSIOGNOMIC SUBCLASS	V.B	Perennial forb vegetation
PHYSIOGNOMIC GROUP	V.B.2	Temperate or subpolar perennial forb vegetation
PHYSIOGNOMIC SUBGROUP	V.B.2.N	Natural/semi-natural temperate or subpolar perennial forb vegetation
FORMATION	V.B.2.N.h	Seasonally flooded temperate perennialforb vegetation
ALLIANCE	<i>Polygonum</i> spp. (section Persicaria)	Seasonally Flooded Herbaceous Alliance

Alliance Identifier: A. 1881

Vegetation Type First Described for Fort Larned National Historic Site

RANGE

Globally

While the Smartweed species Seasonally Flooded Herbaceous Alliance is widespread, it has not been described for the natural areas of Kansas. This type is currently defined only at Fort Larned National Historic Site, where the hydrology has been substantially altered by human agriculture and road building.

Fort Larned National Historic Site

Hydrologically Disturbed Seasonal Polygonum Vegetation occurs in and along the Pawnee River bottom in the main unit of Fort Larned National Historic Site and where a small drainage has been impounded by the roadbed on the west side of the remote Santa Fe Trail Ruts Site.

ENVIRONMENTAL DESCRIPTION

Globally

In the southeastern United States, this alliance occurs in a wide variety of human- and beaver-created wetlands (wet depressions, lakes, and ponds), including a band ringing the shores of ponds in the East Gulf Coastal Plain and in ditches and sloughs in the Mississippi River Alluvial Plain. In the western United States, Great Plains, and one province in Canada, it occurs over a wide elevational range from near sea level to over 2700 m. Stands are found in permanently flooded depressions such as margins of lake shores and oxbow lakes in river floodplains. It occurs in shallow water along the edges of ponds and lakes in the western United States. Stands are found in oxbow lakes and backwater areas of the Columbia River floodplain, in glacial ponds, or prairie potholes, in northern Montana, and in shallow lakes in the mountains of Colorado. Stands are located in standing water that is permanent or present at least during the growing season. These ponds have low concentrations of ions and salts and bottoms composed of finer

sediments, organic muck, clay, or silt. The elevation of the vegetation in the alliance varies depending on geographical location. Stands on the Columbia River are located just above sea level, in Montana between 640-1080 m, and in Colorado from 2050-2700 m. *Typha latifolia* and *Schoenoplectus acutus* may grow adjacent to the vegetation in this alliance in deeper water, and *Carex aquatilis* grows in shallower water along the shore. (NatureServe 2006)

Fort Larned National Historic Site

Damming of the Pawnee River upstream and downstream from FOLS has led to silt accumulation and seasonal standing water in the river bed. Water depth can vary from 0 to 1 m. Depending on the water depth and clarity, smartweed vegetation can be found seasonally in all but the deepest channel of the river bed. Soils are silty and mucky.

At the Santa Fe Trail Ruts Site, a small drainage blocked by the roadbed leads to seasonally wet conditions.

MOST ABUNDANT SPECIES

Fort Larned National Historic Site

Strata	Species
Herbaceous	<i>Polygonum lapathifolium</i> , <i>Polygonum bicornis</i> , <i>Conium maculatum</i> , <i>Rumex altissimus</i>

CHARACTERISTIC SPECIES

Fort Larned National Historic Site

Strata	Species
Herbaceous	<i>Polygonum lapathifolium</i> , <i>Polygonum bicornis</i> , <i>Rumex altissimus</i>

VEGETATION DESCRIPTION

Fort Larned National Historic Site

In the Pawnee River, the vegetation grows 1 to 2 m tall and only covers 60 to 80 percent of the surface. In areas of deeper water, only *Polygonum* species grow, while areas closer to the shore also support *Conium maculatum*, *Rumex crispus*, and *Conyza canadensis*.

In the *Polygonum* community at the Santa Fe Trail Ruts Site, there is little bare ground or standing water. Other than a few annual sunflowers (*Helianthus annuus*) along the fence, the vegetation is less than 1 m. tall.

MAP CODE: W2 (Weeds 2)

PLOTS: AJ, AK, DB, DC, DD