

Ouray National Wildlife Refuge Vegetation Mapping Project

II.B.2.N.b.13. SALIX AMYGDALOIDES TEMPORARILY FLOODED WOODLAND ALLIANCE

Peachleaf Willow Temporarily Flooded Woodland Alliance

Alliance Identifier: A.645

***Salix amygdaloides* / *Salix exigua* Woodland**

Peachleaf Willow / Coyote Willow Woodland

ELEMENT CONCEPT

GLOBAL SUMMARY: The vegetation in this association occurs in riparian habitats on the Columbian Plateau in the interior Northwest and in the Uinta Basin in northeastern Utah. Elevation ranges from 100-1600 m. Stands are located in overflow channels of large rivers, on narrow floodplains of small creeks. Substrates include a wide range of soil textures with the exception of clay. Soils are classified predominantly as Entisols (Fluvents) or Mollisols (Borolls). The water table is within 1 m of the soil surface during the growing season, and the vegetation is tolerant of prolonged flooding. This riparian woodland has a moderately open overstory canopy dominated by the small tree *Salix amygdaloides* with *Salix exigua* dominating the tall-shrub layer near the shore. Other tree species may include scattered *Populus fremontii*, *Acer negundo*, *Populus angustifolia*, *Populus deltoides*, and the introduced *Elaeagnus angustifolia*. Associated shrubs in the moderately dense short-shrub layer include *Rhus trilobata* and *Apocynum cannabinum*. The introduced tall-shrub *Tamarix ramosissima* may present in the tall-shrub layer in disturbed stands. The herbaceous layer is often dominated by graminoids such as *Hordeum jubatum*, *Phalaris arundinacea*, *Pascopyrum smithii*, *Eleocharis palustris*, and *Distichlis spicata*, with forbs such as *Maianthemum stellatum*, *Ambrosia tomentosa*, and *Iva axillaris*. Introduced herbaceous species are present to dominant in many stands and may include *Bromus inermis*, *Cirsium arvense*, *Lepidium latifolium*, *Melilotus officinalis* (= *Melilotus albus*), and *Poa pratensis*.

ENVIRONMENTAL DESCRIPTION

USFWS WETLAND SYSTEM: PALUSTRINE

Ouray National Wildlife Refuge Environment: Peachleaf willow / Coyote willow stands persist on lower second terraces of the Green River floodplain on sites that are too mesic for *Populus fremontii* Forest to become well established. Typically, Peachleaf willow / Coyote willow stands occupy side channels or are immediately adjacent to the Green River. The slope is usually <2%. These sites tend to accumulate debris following overbank flood events. Wildlife use of these stands is high particularly for species of mammals and passerine birds.

Global Environment: The vegetation in this association occurs in riparian habitats on the Columbian Plateau in the interior Northwest and in the Uinta Basin in northeastern Utah. Elevation ranges from 100-1600 m. Stands are located in overflow channels of large rivers, on narrow floodplains of small creeks. Substrates include a wide range of soil textures with the exception of clay. Soils are classified predominantly as Entisols (Fluvents) or Mollisols (Borolls). The water table is within 1 m of the soil surface during the growing season (Hansen et al. 1995), and the vegetation is tolerant of prolonged flooding. Adjacent riparian vegetation may include *Acer negundo*, *Fraxinus pennsylvanica*, and *Populus deltoides* woodlands and *Schoenoplectus pungens* and *Typha latifolia* herbaceous communities.

VEGETATION DESCRIPTION

Ouray National Wildlife Refuge Vegetation: *Salix amygdaloides* / *Salix exigua* Temporarily Flooded Woodland occurs as small stands with relatively dense canopy cover. Cover values recorded for this type ranged from 60-100+, the highest value occurs because of overlapping canopies. Peachleaf willow trees on the Refuge are mature, exceeding 15 m in height, recording foliar cover values of 25-70% for the species, and the largest dbh recorded was 21". Typical dbh measurements ranged from 12-16" for peachleaf willow trees, which are multiple-branched from the base. Other tree species present in the canopy or understory to *Salix amygdaloides* included *Populus fremontii* and *Elaeagnus angustifolia*. The most common understory shrubs include *Salix exigua* and *Rhus trilobata* in the tall shrub layer (1-20% foliar cover) and *Rhus trilobata*, *Tamarix ramosissima*, and *Apocynum cannabinum* in the short shrub layer (1-20% foliar cover). Common grasses and grass-like species include *Phalaris arundinacea*, *Eleocharis palustris*, and *Distichlis spicata* (5-30% foliar cover) and common forbs include *Acroptilon repens*, *Lepidium latifolium*, *Maianthemum stellatum*, *Ambrosia tomentosa*, and *Iva axillaris* (1-10% foliar cover).

Global Vegetation: This riparian woodland has a moderately open overstory canopy dominated by the small tree *Salix amygdaloides* with *Salix exigua* dominating the tall-shrub layer near the shore. Other tree species may include scattered *Populus fremontii*, *Acer negundo*, *Populus angustifolia*, *Populus deltoides*, and the introduced *Elaeagnus*

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angustifolia. Associated shrubs in the moderately dense short-shrub layer include *Rhus trilobata* and *Apocynum cannabinum*. The introduced tall shrub *Tamarix ramosissima* may present in the tall-shrub layer in disturbed stands. The herbaceous layer is often dominated by graminoids such as *Hordeum jubatum*, *Phalaris arundinacea*, *Pascopyrum smithii*, *Eleocharis palustris*, and *Distichlis spicata*, with forbs such as *Maianthemum stellatum*, *Ambrosia tomentosa*, and *Iva axillaris*. Introduced herbaceous species are present to dominant in many stands and may include *Bromus inermis*, *Cirsium arvense*, *Lepidium latifolium*, *Melilotus officinalis*, and *Poa pratensis*.

Dynamics: This association is restricted to sites that are temporarily flooded or have a shallow water table.

MOST ABUNDANT SPECIES

Ouray National Wildlife Refuge

Stratum	Species
TREE	<i>Salix amygdaloides</i> , <i>Populus fremontii</i> , <i>Elaeagnus angustifolia</i>
SHRUB	<i>Salix exigua</i> , <i>Rhus trilobata</i>
HERBACEOUS	<i>Phalaris arundinacea</i> , <i>Eleocharis palustris</i> , <i>Ambrosia tomentosa</i> , <i>Lepidium latifolium</i>

Global

Stratum	Species
TREE CANOPY	<i>Salix amygdaloides</i>
TALL SHRUB	<i>Salix exigua</i>
SHORT SHRUB	<i>Rhus trilobata</i>
GRAMINOID	<i>Hordeum jubatum</i>
FORB	<i>Maianthemum stellatum</i>

CHARACTERISTIC SPECIES

Ouray National Wildlife Refuge

Species
Salix amygdaloides, *Salix exigua*, *Rhus trilobata*, *Phalaris arundinacea*, *Lepidium latifolium*

Global

Species
Salix amygdaloides, *Salix exigua*

OTHER NOTEWORTHY SPECIES

Ouray National Wildlife Refuge

Stratum **Species**
N/A

Global

Stratum **Species**
TALL SHRUB *Tamarix ramosissima*
FORB *Lepidium latifolium*

GLOBAL SIMILAR ASSOCIATIONS: N/A

SYNONYMY:

Salix amygdaloides (Evans 1989a)

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CLASSIFICATION COMMENTS

Ouray National Wildlife Refuge: N/A

Global Comments: Stands from the Green River in Utah may be different from the stands described from small creeks on the Hanford Site along the Columbia River in Washington.

ELEMENT DISTRIBUTION

Ouray National Wildlife Refuge Range: Only a few stands of *Salix amygdaloides* / *Salix exigua* Temporarily Flooded Woodland occur within the Refuge. These were observed and sampled off the Hatchery Road near the boat ramp and in Wyasket Bottom.

Global Range: This riparian woodland has been described from the Columbia River Basin in Washington and along the Uinta Basin in Utah where it occurs on the banks small creeks and large rivers.

Nations: US

States/Provinces: ID? OR UT WA

TNC Ecoregions: 10:C, 6:C

USFS Ecoregions: 341C:CC, 342C:CC, 342I:C?, M332A:CC, M332E:CC, M332F:CC, M332G:CC

Federal Lands: USFWS (Ouray)

ELEMENT SOURCES

Identifier: CEGL000948 **Confidence:** 3 **Conservation Rank:**G1Q

REFERENCES: Evans 1989a, Hansen et al. 1995, Hirschberger 1978, Von Loh 2000.