

*Forbs*

Forb—  
a broad-leaved  
herbaceous plant.



According to local history, in 1629 a Spanish priest named Salas first named the Nueces the Rio de las Perlas, presumably because of an abundance of freshwater pearls. Only a few of the 14 documented native species of freshwater mussels can be found today. As an ecological indicator species, extremely sensitive to changes in water quality and sediment loading, their absence may indicate that significant changes have already occurred. Riparian function produces the values humans treasure in rivers, mostly clean flowing water, but riparian function also produces the values other species depend upon for survival. Sky Jones-Lewey

# Water willow

(*Justicia americana*)  
ACANTHACEAE

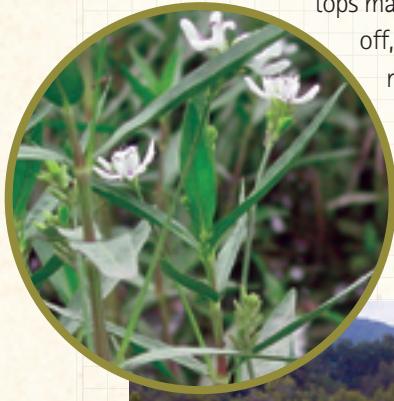
Wetland Indicator Status:

OBL

Stability Rating:

7

This strong-rooted perennial often forms large colonies in shallow water. It can also grow on gravel bars near the waterline, underwater and in channels that are temporarily dry. Plants within a colony are interconnected by a dense network of roots and rhizomes. It is recognized by having thick stems with leaves that occur in opposite pairs. The small white to purplish flowers occur on stalks. Water willow is an important plant to help stabilize gravel and mud deposits. During flooding, the tops may be stripped of leaves or the tops may be broken off, but the roots usually remain intact and will quickly re-sprout. Plants broken off or uprooted during floods can wash downstream and form new plants from rooting stems. Water willow is palatable to deer and livestock and is sometimes grazed short. This kind of grazing reduces the strength of the root system. Colonies of water willow provide good habitat for aquatic insects and small fish.



Forbs

# Water hyssop

(*Bacopa mommieri*)  
SCROPHULARIACEAE

Wetland Indicator Status:

OBL

Stability Rating:

3

This short perennial forb has many tiny prostrate stems that root every few inches to form a mat. The flowers are small pale blue to white. Water hyssop is an early stage colonizer plant that generally grows right at the waterline of gravel bars and mud deposits. It is sometimes grazed by deer.



# Water pennywort

(*Hydrocotyle* sp.)  
APIaceae

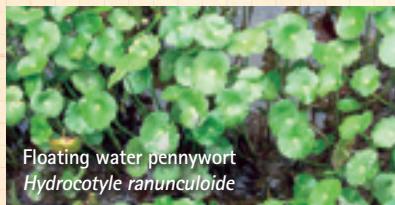
Wetland Indicator Status:

OBL

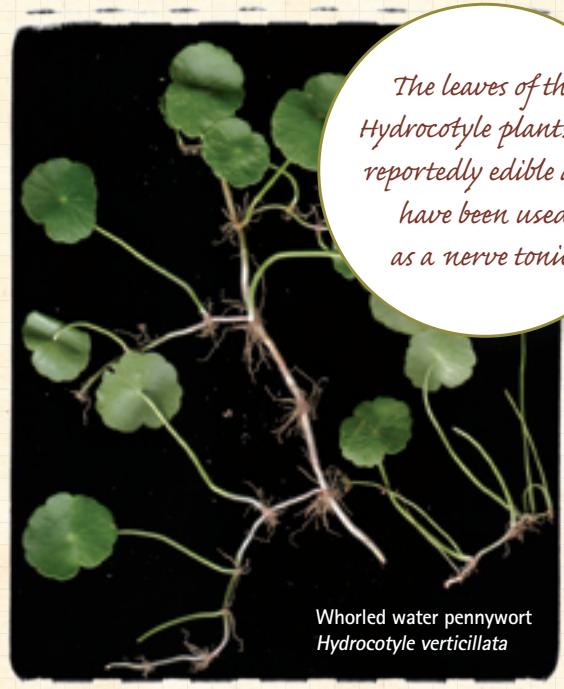
Stability Rating:

3

Water pennywort is a mat-forming perennial with numerous prostrate stems that root every few inches. The leaves are round with slightly scalloped edges, and the leaves are elevated on a central stalk. Flowers are inconspicuous. It occurs at the water's edge and helps hold fine sediments in place until stronger stabilizing plants can become established. There are three species of water pennywort found in the area—all look very similar.



Floating water pennywort  
*Hydrocotyle ranunculoides*



Whorled water pennywort  
*Hydrocotyle verticillata*

Forbs

# Water cress

(*Rorippa nasturtium-aquaticum*)  
BRASicaceae

Wetland Indicator Status:

OBL

Stability Rating:

3

Water cress is familiar to many people as a low-growing leafy, semi-aquatic plant that can be eaten cooked or raw. It grows in shallow water or at the water's edge. It is a native of Europe but has become common on many creeks and rivers. The stems are prostrate and root every few inches to form a mat that helps colonize newly deposited fine sediment. The flowers are very small and white which later form small seed pods. Water cress is sometimes grazed by deer or livestock. This plant is often cultivated for use in salads adding a pungent, peppery taste.



# Spiny aster

Devil weed

(*Aster spinosa* or  
*Chloracantha spinosa*)  
ASTERaceae

Wetland Indicator Status:

FACW

Stability Rating:

8

Spiny aster is a very strong perennial plant that appears as a mass of green stems without leaves. It grows in the Rio Grande Plains part of the Nueces Basin and often forms large continuous colonies interconnected by a dense network of roots and rhizomes. The lower stems, which can be woody, are armed by short stout spines. The upper stems are branched and somewhat evergreen. Flowers are relatively sparse—small and unimpressive with white petals and a yellow central disk. The dense rooting network provides excellent bank stabilization. It is generally not eaten by deer or livestock except under extreme conditions. Spiny aster can be easily transplanted by digging sections of root during the winter or early spring.



Forbs

# Lindheimer senna

Velvet leaf senna

(*Senna lindheimeriana*)  
FABAceae

Wetland Indicator Status:

UPL

Stability Rating:

4/5



Lindheimer senna is an erect, perennial, foul-smelling legume with one to several velvety stems rising from a deep, woody root. Like the Lindheimer indigo, Senna tends to be an early colonizer of gravel and sand bars and from that standpoint performs an important riparian function. The seeds are a food source for birds, and the flower is a larval host and/or nectar source for the Sleepy orange butterfly (*Abaeis nicippe*). Lindheimer senna is toxic to livestock and very unpalatable; it is consumed only under unusual circumstances.

# Sesbania

(*Sesbania*, sp)  
FABaceae

Danglepod plants

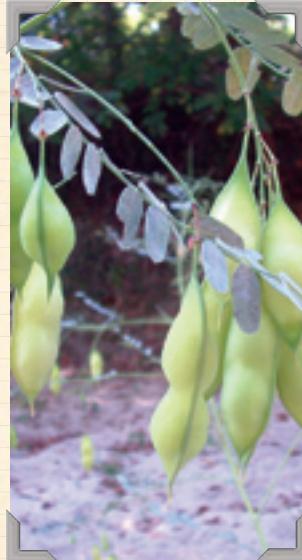
Wetland Indicator Status:

**FACW/FAC** Stability Rating: **3/4**

Three species of *Sesbania* are common in the Nueces Basin. This nitrogen-fixing weak colonizer is quick to spring up on raw gravel and sand bars.



Pencilpod sesbania  
(*Sesbania macrocarpa* or *exaltata*)



Bagpod sesbania  
(*Sesbania vesicaria*)



Rattlebox sesbania  
(*Sesbania drummondii*)

Forbs

# Frogfruit

(*Phyla nodiflora*)  
VERBenaceae

Turkeytangle

Wetland Indicator Status:

**FACW**

Stability Rating:

**4**

Frogfruit is one of the common early stage colonizer plants found on the fringe of gravel bars in moist areas. It has low, branching, prostrate stems that root at every node to form a living mat. Leaves are formed in opposite pairs and have saw tooth serrations at the tip. Flowers are formed in tight heads on short stalks.



Photo courtesy of Lady Bird Johnson Wildflower Center

# Frostweed

Iceweed, Ice plant

(*Verbesina virginica*)

ASTEraceae

Wetland Indicator Status:

*FACU*

Stability Rating:

5



Frostweed is common and often dominates the bottomland terraces of Nueces headwater floodplains. It is sometimes found in the active channel floodplain and can help to stabilize gravel deposits. Frostweed grows to a height of 4- to 6-feet and often forms dense colonies by an extensive network of rhizomes. It is easily identified in spring by the narrow thin wings that form along the length of the stem. Clusters of white flowers appear in late summer or fall, followed by seed heads which persist through winter. At the first freeze of the year, the sap



freezes, bursting the stems, extruding ice in paper-thin sheets, providing a beautiful, but short-lived display. Frostweed is not palatable to deer or livestock and is seldom grazed. It is often considered an undesirable weed by landowners, especially when it dominates large areas to the exclusion of other plants. The flowers are a valuable source of nectar for many species of butterfly.

# Late boneset

(*Eupatorium serotinum*)  
ASTEraceae

Forbs

Wetland Indicator Status:

*FAC*

Stability Rating:

5

Late boneset is a perennial that forms small colonies growing 3- to 5-feet tall, often in gravel deposits. Leaves form in opposite pairs and have saw tooth margins. Flowers, which appear in late summer or early fall, are dirty white in color and form in clusters. It is an excellent source of nectar for butterflies and can be seen colonizing disturbed riparian areas.



# Water primrose

(*Ludwigia sp.*)  
ONAGraceae

Wetland Indicator Status:

OBL/FACW

Stability Rating:

3/4



Forbs

Floating water primrose (*Ludwigia peploides*) is a low-growing, leafy, mat-forming plant which roots every few inches along the prostrate stems. It is often rooted at or near the water's edge, and the stems grow out across the water to help anchor fine newly captured sediment. It is a superb colonizer plant. Flowers are bright yellow with five petals and very showy.



Tall water primrose (*Ludwigia octovalvis*) is a stemmy upright plant, growing to a height of 3-feet. It is less valuable as a colonizer since it does not form a matted network of roots. Tall water primrose also has showy yellow flowers but with only four petals. Both species are subject to grazing by deer and livestock.

# Tall goldenrod

(*Solidago altissima*)  
ASTERACEAE

Wetland Indicator Status:

FACW

Stability Rating:

6/7



Tall goldenrod is the most common species of goldenrod in the region. It grows in colonies interconnected by a network of underground rhizomes and can help colonize disturbed riparian areas. During the spring and early summer it is a nondescript looking plant. As the characteristic

goldenrod flowers form in late summer, it begins to standout on the riparian landscape. Goldenrod favors fine soil deposited by previous floods, and the root system can help hold these soils together. Goldenrod is readily eaten by deer, exotics and livestock, and for that reason may not be common on some creeks. There are several other species of goldenrod in the region.



# Plateau goldeneye

(*Viguiera dentata*)  
ASTERACEAE

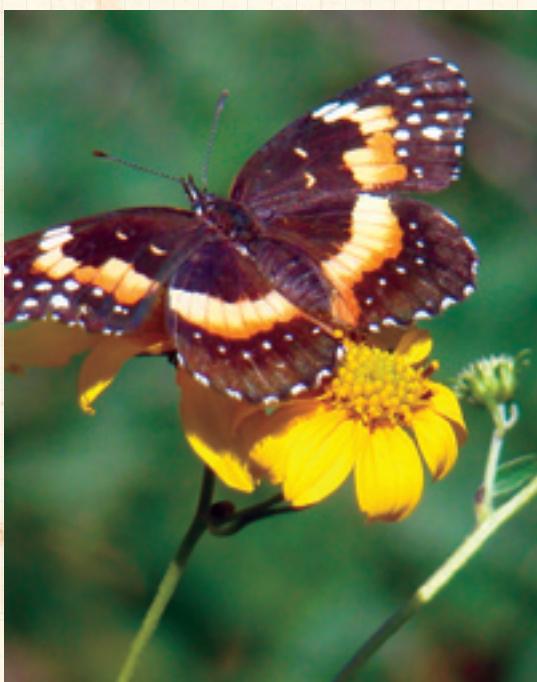
Wetland Indicator Status:

UPL

Stability Rating:

5

Goldeneye can often be found in abundance on abandoned floodplain terraces . It is a large perennial forb, growing to a height of 3- to 6-feet. In summer it bears many bright yellow flowers, resembling sunflowers, and attracts a variety of butterflies, moths and bees.



Forbs

# Elephant ear

(Invasive Non-Native)

Taro

(*Colocasia esculenta*)  
ARACeae

Wetland Indicator Status:

*FACW*

Stability Rating: *unknown*



A tropical plant with very large leaves on a stout hollow stalk, this plant grows from elongated underground tubers. Elephant ears were introduced from Asia as an ornamental plant. Commonly planted in riverside landscapes, it sometimes escapes into the wild and can be quite invasive. Large colonies have the potential to displace native riparian vegetation. The starchy roots of this plant are made into 'poi' by Pacific Island cultures and used as a staple food.

Forbs

## Sea purslane

*Sesuvium sp.*  
AIZOaceae

Wetland Indicator Status:

*FACW*

Stability Rating:

4

Sea purslane is a salt-tolerant succulent, or halophyte. It can colonize saline soils and utilize salt water while providing vital ground cover for contaminated or salted-out riparian sites. The plant stores salt in its leaves and is apparently used by wildlife and livestock as a source of dietary salt.



# Beggars'-ticks

Smooth bidens, Bur marigold, Joaquin sunflower

(*Bidens sp.*)  
ASTERaceae

Wetland Indicator Status:

OBL

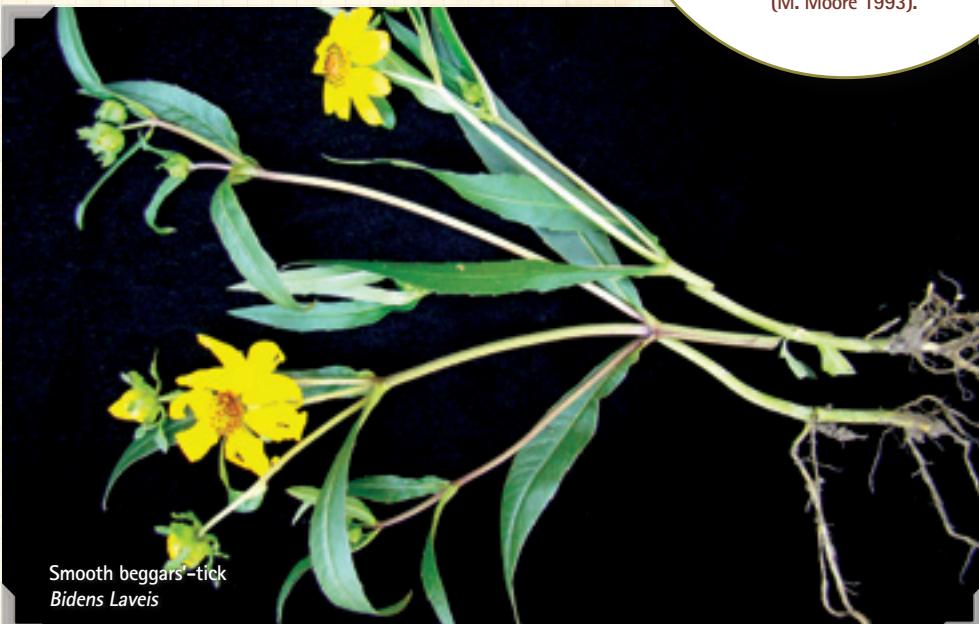
Stability Rating:

4/5

Smooth beggar's-ticks and cutleaf beggars'-ticks are large perennial forbs with bright yellow flowers. They grow in shallow water or at the water's edge on gravel bars with a high water table. They can grow either upright to a height of 3-feet, or more commonly, prostrate, with the stems rooting at the nodes. They sometimes form large colonies and serve well as colonizers. The seeds resemble a pitchfork with each prong having barbs that easily catch in animal hair coats or clothing. It is especially annoying and difficult to remove the seed from clothing after walking through a colony of beggars'-ticks, but this is nature's way of dispersing seed of these valuable riparian plants. Livestock and wildlife readily graze the plants.

*Infusions and tinctures of cutleaf beggars'-ticks (*Bidens frondosa*) are rated as outstanding herbal therapies for irritation, inflammation, pain and bleeding of the urinary tract.*

(M. Moore 1993).



Forbs

# Wild mint

(*Mentha piperina* and *Mentha spicata*)

LAMIaceae

Wetland Indicator Status:

FACW

Stability Rating:

3



Forbs

Two species of Wild mint grow in the region, Peppermint and Spearmint. Both species were introduced from Europe by early settlers for culinary purposes. Mint has found its way into many riparian areas where it serves nicely as a colonizer plant. It has the characteristic opposite-paired leaves shared by all plants in the mint family. The fresh mint smell when the leaves are crushed is another distinguishing feature. Mint is a perennial plant that spreads effectively by rooting along any stems that touch wet soil. It can form dense colonies and is often mixed with Water cress, Water hyssop and Pennywort. Like other colonizer forbs, it is not strong-rooted but can help hold fine sediments in place until more robust plants are established. Mint and other colonizers can spread from pieces of the plant that are broken off by flooding and wash downstream. Mint is readily grazed by deer and livestock.

# Cardinal flower

(*Lobelia cardinalis*)

CAMPanulaceae

Wetland Indicator Status:

FACW

Stability Rating:

5



Cardinal flower is one of the most striking riparian plants when it's in full bloom. As the name implies, the flowers, which form in spiked clusters, are brilliant red. The flower stalks are 2- to 4-feet tall and is a favorite of hummingbirds. When not flowering, the plant is fairly inconspicuous. It usually grows right at the water's edge, often in partial shade. Cardinal flower is neither a colonizer nor a stabilizer and is seldom present in significant amounts. What it may lack as a contributor of riparian function, it makes up for in sheer beauty. Cardinal flower is available commercially as a potted plant and is often added to landscapes in wet locations, but the leaves of this plant are toxic to humans and livestock.