

Wild Indigo in Grayson County

Baptisia is a plant genus containing many species of conspicuously flowered, herbaceous perennials in the *Fabaceae* family. The *Fabaceae*, commonly known as the legume, pea, or bean family, are a large and economically important family of flowering plants. As you can tell by the common name, many food plants are in the family *Fabaceae*. In fact, this family is the world's third largest plant family, with nearly 20,000 species found around the globe. Some Texas native species you may not realize are in this family include small flowering plants like Bluebonnets and Lindheimer's Senna, and trees, like Redbud and Eve's Necklace. These are all related to our local *Baptisias*. All *Baptisia* species are commonly known as Wild Indigo, although many are not in shades of blue as you might expect.

In Texas, *Baptisias* grow in remnant native habitats and often sprout up as weeds in overgrazed pastures. There are three *Baptisia* species whose native ranges overlap in north central Texas, and all three may be found blooming in spring at Hagerman National Wildlife Refuge. One characteristic of *Baptisia* is its ability to hybridize and at least two hybrid forms have also been identified on the refuge.



Baptisias also are known to develop localized sub-species. *Baptisia australis* (photo above right) is native to much of central and eastern North America, although it is very adaptable and has been introduced beyond its native range. The sub-species *B. australis* var. *minor* reaches the southern extreme of its range in our area. Its blue-violet flower spikes may be seen from Refuge Road as you enter the refuge from the east. *B. australis*, also known as Blue False Indigo, was used by Native Americans and prairie settlers to produce a blue dye before the availability of the better-quality true indigo. The name "*Baptisia*" is derived from the Greek word *bapto*, which means to dip or dye.



The most common species of *Baptisia* found on the refuge is *B. sphaerocarpa* (left photo) also known as Yellow Wild Indigo. You probably have seen it opposite the maintenance buildings as you enter the refuge from the east, or possibly on the west side along Sandy Point Road. This bright yellow species of wild indigo is a southern native and is only found as far north as central Oklahoma. The third of our native *Baptisias* is the cream-colored *B. bracteata* var. *leucophaea*, which grows in various spots in the Sandy unit and out along Short Road, west of the refuge. Its common name is Longbract Wild Indigo or Prairie Wild Indigo. *B. bracteata* reaches the western boundary of its range in Grayson County.

It is not difficult to find areas on the refuge where pollinators may visit multiple *Baptisia* species, including *B. australis* and *B. sphaerocarpa* along Refuge Rd. While natural hybridization of the genus had previously been documented, a hybrid of these two species had not been identified until researchers from Austin College and the Botanical Research Institute of Texas studied them in

Grayson and Fannin Counties in 1996. They named the newly discovered hybrid *B. X variicolor*. It seems

a particularly appropriate name because the two examples I found in the Refuge Road area are slightly different hues as shown in the two photos below (left and middle). More historically better documented and consistently colored is the hybrid of *B. sphaerocarpa* and *B. bracteata* found near Sandy Point called *B. X bushii* (below right).



B. australis and *B. sphaerocarpa* are host plants for numerous butterfly species. *B. australis* in particular may be a larval host for Orange Sulphur, Eastern Tailed-blue, and Wild Indigo Duskywing butterflies. Frosted Elfin butterflies (currently the subject of research by the U.S. Fish and Wildlife Service throughout the eastern United States) lay their eggs on the refuge exclusively on *B. sphaerocarpa* and many other butterflies visit the plant for nectar. Gray Hairstreaks also use *B. sphaerocarpa* as a caterpillar host as do some moth species. Some skippers may use *B. bracteata* (right photo) as a host plant and it is reportedly an important nectar source for American Bumble Bees (*Bombus pensylvanicus*) – especially the larger queens looking to establish a new nest site at the time the *Baptisias* are in bloom.



Look for the tall blue spikes of *B. australis*, the bushy yellow spires of *B. sphaerocarpa*, and the low, arching bracts of *B. bracteata* when you visit the refuge next April, and see if you can find any of the hybrid forms while you are there.

REFERENCES:

Baptisia (Baptisia, False Indigo, Wild Indigo) | North Carolina Extension Gardener Plant Toolbox (<https://plants.ces.ncsu.edu/plants/baptisia/>)

Baptisia | Better Homes & Gardens

(<https://www.bhg.com/gardening/plant-dictionary/perennial/baptisia/>)

Baptisia (False or Wild Indigo) | Clemson University Home & Garden Information Center

(<https://hgic.clemson.edu/factsheet/baptisia-false-or-wild-indigo/>)

Wikipedia

(<http://en.wikipedia.org/wiki/Baptisia>)

Natural Hybridization Among Three Sympatric Baptisia (Fabaceae) Species In North Central Texas; by M. A. Kosnik, G. M. Diggs, Jr., P. A. Redshaw, B. L. Lipscomb.