# Plant of the Month

***Amorpha fruticosa*** – false indigo

**Family**: Fabaceae, the pea family

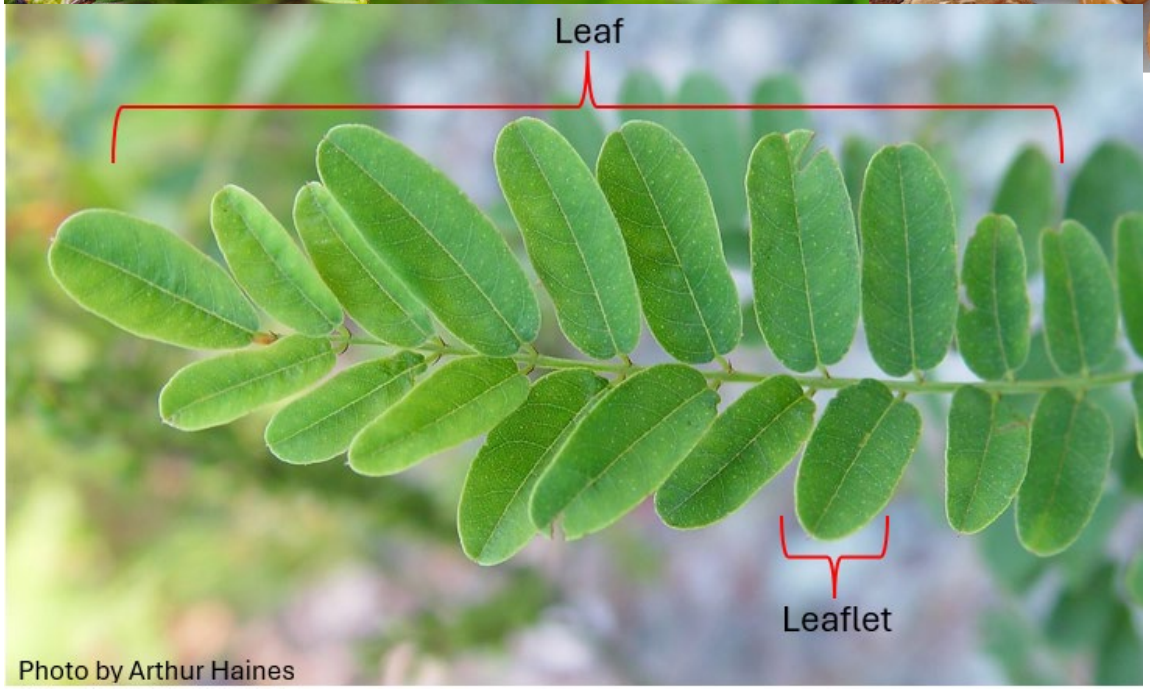
**Habit**: shrubs to small trees, 3-6 feet tall; leaves comprised of 9-23 smaller leaves (leaflets) along the central stem –this type of leaf is referred to as pinnately compound; leaflets elliptic to oblong in shape, about an inch in length with a small bristle at the tip; inflorescences in dense cylindrical clusters containing numerous small flowers; each flower has one violet to red-purple petal (banner) and a cluster of stamens topped with yellow to orange anthers; the fruit are small pods, 5-7 mm long, with small blister-like glands on the surface. Blooms May – July.

**Habitat**: Grows along streams, meadows, grasslands, and roadsides; 3,800 – 6,000 ft.

The genus name, from the Greek amorphos, means formless or deformed. This is in reference to the false indigo flower having only a single petal, unlike the characteristic four petals – banner, two wings, and keel – that the pea family is known for. Like the true indigo plant, *Indigofera tinctoria*, a dye can be derived from the leaves of false indigo – but not in large enough quantities for commercial use.

The false indigo is a food source for various butterflies and bees, such as ground-nesting andrenid bees, and serves as a host plant for the larval silver-spotted skipper and gray hairstreak. It is an adaptable plant that can withstand flooding, droughts, and high winds, which has made it a desirable species for stream bank stabilization, erosion control, and windbreaks. The shrub spreads by seed as well as suckers (stem growth from the root system) which lends itself to forming thickets. This tendency has made it a nuisance outside of its native range, and it is listed as an invasive species in Connecticut and Washington, and its sale is prohibited in Maine.

Like many members of the *Fabaceae* family, the roots of false indigo have nitrogen-fixing nodules that allow the plant to use nitrogen from the atmosphere. A bacteria known as *Mesorhizobium amorphae* lives within the nodules and converts atmospheric nitrogen ($N_2$) into ammonia ($NH_3$), which is essential for many of the plant's functions, such as growth and chlorophyll production. In return for this service, the bacteria are provided with nutrients from the plant.


Leaf
Leaflet
Photo by Arthur Haines

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