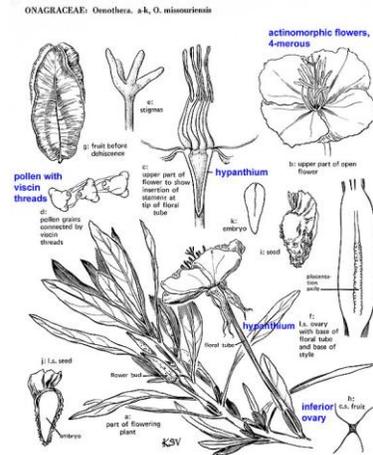


## Onagraceae (Evening-Primrose Family, Willow-Herb Family)

The Onagraceae is a family of about 650 species widely distributed across temperate parts of both the Eastern and Western hemispheres. Most members of the family are herbaceous. Members of economic interest are few, except for a handful of garden plants such as *Fuchsia*. Flowers of our local Onagraceae are typically radially symmetrical, except in the case of *Gaura* where flowers appear to be bilaterally symmetrical. Most have 4 sepals and 4 petals; a few *Ludwigia* have 5 sepals and 5 petals. Both are attached at the top of the ovary (i. e., the ovary is inferior); in many cases, the perianth parts are fused into a hypanthium (floral tube). Stamens are 4 to 8 in number; the pistil is usually solitary with a 4-lobed stigma. The fruit of many of our species is a 4-chambered dehiscent capsule; in *Gaura*, the fruit is a nutlike, indehiscent capsule.

Identifying our species of Onagraceae can be very difficult. Be sure to pay attention to vegetative characters that aren't captured in close-up photographs, such as the number of stems per plant, their habit (erect, ascending, prostrate, etc.), and the presence or absence of rhizomes. Mature fruits are essential for identification of most species, especially *Gaura*; the drawings in Raven & Gregory (1972) are indispensable in that regard.



Source: Integrative Biology 335: Systematics of Plants, University of Illinois.

<http://www.life.illinois.edu/ib/335/Rosidae1.html>



Varileaf evening-primrose (*Oenothera heterophylla*), a species of deep sandy soils in the Bastrop area. Note 4 petals, 8 stamens, and 4-lobed stigma.



Limestone gaura (*Gaura calcicola*), a common species of limestone outcrops on the Edwards Plateau. The unequal disposition of the petals and stamens is typical of the genus.



Stemless evening-primrose (*Oenothera triloba*), a widespread species in our area. Note the LONG hypanthium (floral tube) between the flower and the capsule, which is partially buried in soil under the leaves.

Recommended reference:

Raven, P. H. and D. P. Gregory. 1972. A revision of the genus *Gaura*. *Memoirs of the Torrey Botanical Club* 23: 1-96.