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CORNUS ALTERNIFOLIA (CORNACEAE) IN TEXAS

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ABSTRACT

Cornus alternifolia is reported as new to Texas based upon a specimen collected in the rich hardwood-pine forest of northern Jasper County. The presence of the species in the state is disjunct from its nearest known occurrences in southern Mississippi and northwestern Arkansas but is considered native to the state. A list of species associated with the *Cornus* as well as a list of noteworthy (rare for Texas) southeastern species reported for the area are provided.

In the *Manual of the Vascular Plants of Texas* (Correll & Johnston 1970), the genus *Cornus* is treated as consisting of four species: *C. florida* L., flowering dogwood, native to the eastern one-third of the state and commonly used as a favored ornamental; *C. drummondii* C.A. Mey., rough-leaf dogwood, of the eastern half of the state (including the Edward's Plateau vegetational region and as an outlier in the eastern part of the (northern panhandle), *C. foemina* Mill., English dogwood, mostly of deep (far) east Texas; and *C. racemosa* Lam. of east Texas, now treated as a synonym of *C. foemina* (Turner 2003; Kartesz 2017). The present paper reports the occurrence of *C. alternifolia* L.f. (alternate-leaved dogwood) as part of the state's native flora.

Voucher. **Texas**. Jasper Co.: solitary shrub-like tree, 17.9 km (11.12 mi) at 015.08 degrees N of Jasper, sandy hardwood forest on bank of small perennial stream adjacent to a Catahoula sandstone outcrop, Campbell Global Property, WGS 84: 31.07548 N -93.94735 W, 14 Oct 2016, *Keith 1104* (BAYLU, SHST). Figures 1 and 2.

Cornus alternifolia occurs in the northeast and north-central USA (and adjacent Canada, Marie-Victorin 1964), south to South Carolina, Georgia, west Florida, Alabama, Mississippi, and Nebraska (Kartesz 2017). The Texas location is approximately 420 km (260 miles) from the nearest eastern location in Mississippi and 580 km (360 miles) from the nearest location to the north in Arkansas (both locations are based upon distributions in Kartesz [2017]).

The dogwood was initially discovered by Lewandowski in spring 2016 and collected by Keith in the fall (cited above). Peter Loos (in communication with Lewandowski) located another plant about 100 m downstream from the location cited, but the second was not found by Keith during the survey for additional specimens. It does seem highly unlikely that only a single plant exists. The vouchered tree is 4.6 m tall with a 5 cm dbh, with several stems sprouting from the base near the largest stem. There was no evidence of prior flowering, such as remnant inflorescences or fruit. The location is 1.6 km (1 mile) from the nearest occupied residence/building, indicating that the plant can reasonably be considered to be native.

Common associated species at the *Cornus* locality include *Quercus alba*, *Q. falcata*, *Fagus grandifolia*, *Prunus serotina*, *Ilex opaca*, *Ilex vomitoria*, *Acer rubrum*, *Ostrya virginiana*, *Vaccinium elliottii*, *Styrax grandifolius*, *Callicarpa americana*, *Symplocos tinctoria*, *Chasmanthium sessiliflorum*, *Dichanthelium commutatum*, *Athyrium felix-femina*, *Mitchella repens*, and numerous sedges (Cyperaceae). This part of Texas forms the southwestern terminus of the vast southeastern pine and pine-hardwood forests of the southeast USA and is characterized by an assemblage of rich woods species considered to be rare disjuncts and peripherals in Texas. Noteworthy species in this region (southern Sabine and northern Jasper and Newton counties) include *Houstonia purpurea*, *Verbesina walteri*, *Rudbeckia laciniata*, *Trillium ludovicianum*, *Prenanthes barbata*, *P. altissima*, *Amelanchier arborea*, *Phlox divaricata*, *Magnolia pyramidata*, *Stewartia malacodendron*, *Calycocarpum lyonii*, *Lyonia lucida*, and *Xanthorhiza simplicissima*. *Cornus alternifolia* joins the rare plant list.

Cornus alternifolia is a large shrub to small tree characterized by a multi-stemmed, upright spreading habit with layered, horizontal branching. The leaves are simple, alternate, and clustered toward the branch tips on short internodes, resulting in a whorled appearance. Leaves are medium to dark green and glabrous on the upper surface and gray-green to white on the lower surface. Leaf shape ranges from broadly elliptic to ovate with 4–6 pairs of pinnate arched primary nerves and acuminate apices. Petioles are light green to red and 2.5–5 cm long. Flat-topped inflorescences 5–9 cm wide and bearing tiny white 4-petaled flowers are borne in the leaf axils. In late summer, berry-like fruits to 0.4 cm diameter mature from green to bluish-black on reddish stalks.

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Figure 1. *Cornus alternifolia* (Cornaceae) in Jasper Co., Texas. Photo by Rick Lewandowski.

Figure 2. Leaf undersurfaces of same tree in Figure 1. Photo by Rick Lewandowski.