

ZORNIA GEMELLA (FABACEAE) NEW TO FLORIDA

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ABSTRACT

Widely distributed in the New World, *Zornia gemella* ranges from South and Central America to the Caribbean. In the USA, it has previously been known only from southern Texas. We report the first known occurrence of this species from Florida.

While searching in Florida for additional localities of *Cyperus richardii* Steudel (cf. Carter et al. 2016), we encountered an unfamiliar *Zornia* with bifoliolate leaves, which we have identified as *Zornia gemella* Vogel. It is a species of tropical and warm temperate areas, ranging from South and Central America to the Caribbean and southern Texas (Mohlenbrock 1961, 1962). The only species of *Zornia* previously recorded for Florida is the southeastern endemic *Z. bracteata* J.F. Gmel. (Isley 1990; Wunderlin & Hansen 2011; Wunderlin et al. 2016) — we report and describe our voucher collections of *Z. gemella*, documenting the first known occurrence of this species from the state.

Zornia gemella Vogel, Linnaea 12: 61. 1838.

Perennial herb. **Stems** trailing to decumbent, glabrous. **Leaves** palmately compound; leaflets 2, broadly elliptic to ovate below to lanceolate or lance-linear above, ± pellucid punctate. **Spikes** flexuous, bracteate, flowers mostly widely spaced; floral bracts lanceolate to narrowly elliptic, 6.0–7.5 × 1.3–1.7 mm, attached basally or slightly above the base and subpeltate, glabrous to ciliate and strigose. **Corolla** papilionaceous, basally included within the bracts but mostly exserted, yellow. **Loments** with (3–) 4–6 (–7) segments, oblong-linear, 8–15 × 1.8–2.0 mm, straight or curved, mostly exserted from bracts; segments ± square, 1.9–2.1 mm long, both hirtellous and with retrorsely barbed bristles. Figures 1 and 2.

USA. Florida. Hillsborough Co.: Alderman Ford Park, along E side of FL Hwy 39, 27.86974° N, 82.13712° W, infrequently mowed weedy border between athletic fields, disturbed sandy loam, occasional, 16 Dec 2015, *Carter 22597* with Mears (FLAS, MO, TROY, USF, VDB, VSC). Additional populations are expected at other ruderal sites in central and southern peninsular Florida.



Figure 1. *Zornia gemella* (Carter 22597, VSC); inset shows portion of inflorescence with bracts and exserted loment.

Both *Zornia bracteata* and *Z. gemella* have mostly prostrate to trailing stems. However, the bifoliolate leaves of *Z. gemella* (4-foliolate in *Z. bracteata*) and its much narrower and less conspicuous lanceolate to narrowly elliptic floral bracts (ovate to elliptic in *Z. bracteata*) are immediately obvious differences. The key below distinguishes these two species.

1. Leaves with 2 leaflets; floral bracts lanceolate to narrowly elliptic, 1.3–1.7 mm wide; loment with retrorsely barbed bristles and hirtellous; loment segments with (3–) 4–6 (–7) segments; loment segments \pm square, 1.9–2.1 mm long ***Zornia gemella***
1. Leaves with 4 leaflets; floral bracts ovate to elliptic, 3.5–7.1 mm wide; loment with retrorsely barbed bristles but otherwise glabrous; loment segments with 2–4 segments; loment segments lunulate, 3.4–4.2 mm long ***Zornia bracteata***

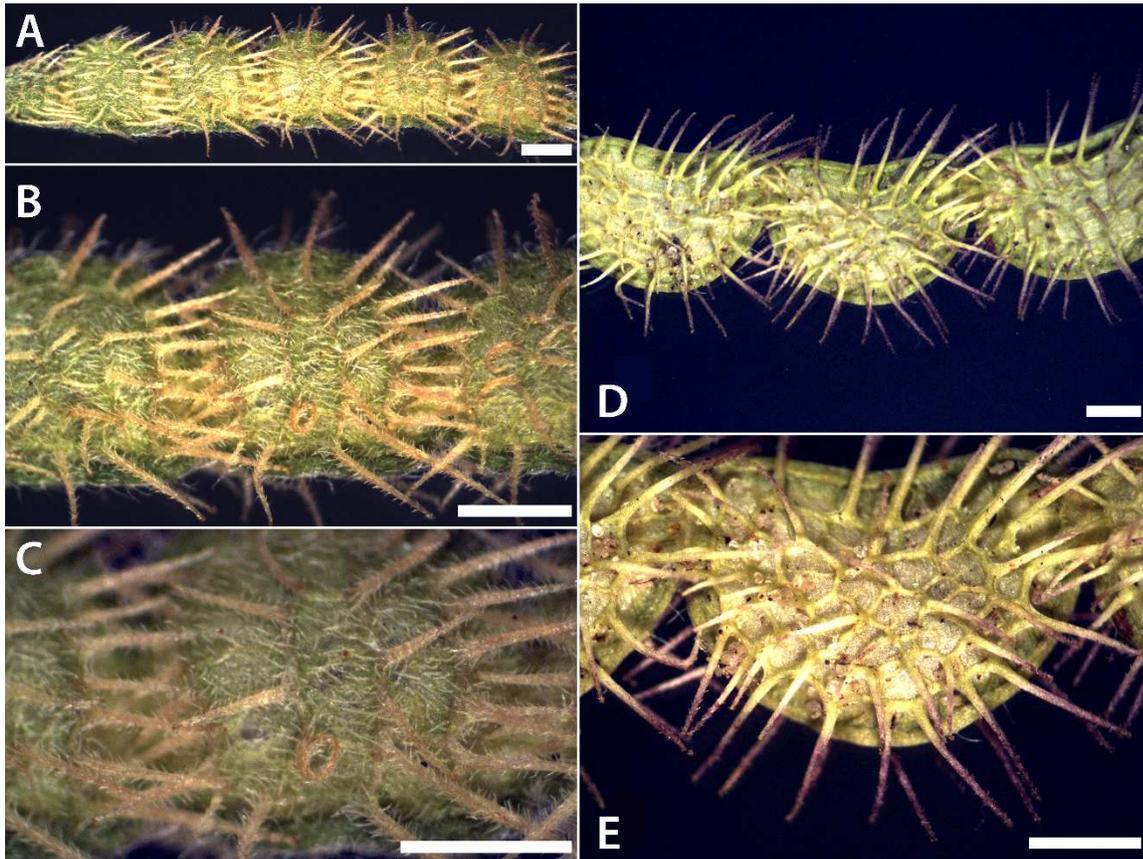


Figure 2. Loments of *Zornia gemella* (A–C) and *Z. bracteata* (D–E). **A.** Intact loment. **B.** Portion of loment showing three segments. **C.** Loment segment showing retrorsely barbed bristles and hirtellous pubescence. **D.** Portion of loment showing three segments. **E.** Loment segment showing retrorsely barbed bristles and absence of pubescence. All scale bars = 1 mm. A–C from *Carter 22597* (VSC); D–E from *Carter 17158* (VSC).

Source specimen of *Zornia bracteata* for loment photographs. **USA. Georgia.** Camden Co.: 30.78077 N 81.68903 W, 1.33 air mi S of Kingsland jct Hwy US 17 and GA Hwy 40, ca 0.1 mi W of railroad by Vacuna Rd, open sandy roadside, plants locally common, 18 Aug 2006, *Carter 17158* with Baker (VSC).

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