

The species was considered rare by Correll and Johnston (1970) because it was known only from Jasper and Nacogdoches counties. Turner et al. (2003) presented an expanded distribution in east central Texas that included six counties. Turner et al. also used the name to refer to plants of the Edwards Plateau which, in this study, are considered a distinct species. *Prenanthes barbata* occurs in mesic ravine slope forests that are dominated by *Fagus grandifolia*-*Quercus alba* series (Diamond et al. 1987) and on mesic hardwood sites with *Quercus shumardii*, *Q. muhlenbergii*, *Q. alba*, *Q. michauxii*, *Pinus taeda*, *Carya ovata*, and *C. myristicaeformis*.

Prenanthes carrii J.R. Singhurst, R.J. O'Kennon, & W.C. Holmes, sp. nov. (Fig. 2).

TYPE: U.S.A. TEXAS, BANDERA CO.: Lost Maples State Natural Area, above and below Upper Forks of Mystic Canyon Trail, 1 Sep 2003, Singhurst & Singhurst 12496 (HOLOTYPE: BAYLU).

A. P. barbatae similis sed foliis sagittiformibus differt.

Perennial herbs from tuberous tap roots with similar side roots. Stems simple, erect, occasionally rather long branched in area of inflorescence, 80–150 cm long, strigose to tomentose in upper half, scattered strigose to glabrous basally. Lower leaves sagittiform (ovate, ovate-deltate to broadly elliptic in general contour), 13–25 × 7–12 cm, light green, chartaceous, venation pinnate, with 3–5 pairs of prominent secondary nerves separating from the midvein at an angle of about 45 degrees, nerves straight to slightly antrorsely curved, tertiary and quaternary veins reticulate; surfaces glabrate to lightly puberulent-setose especially on nerves; bases attenuate, truncate to widely cordate, occasionally deeply pinnately divided at base near petioles, margins coarsely and irregularly dentate, mostly 1–2 cm distant, teeth subspinose-mucronate, apices acute to rounded; petioles 2.2–13 cm long, broadly winged for half or more of its length by the decurrent leaf bases; upper leaves reduced in size, elliptic, occasionally nearly sessile or with winged-decurrent petioles to about 1 cm long, otherwise similar to lower leaves; bracteal leaves reduced in size, less prominently dentate to occasionally subentire. Capitulescence paniculate, 20–50 cm tall; capitula cylindrical to semicampanulate; peduncles, 4–9 mm long, tomentulose, with 5–12 or more linear-subulate to narrowly lanceolate hispid bracts (outer phyllaries) 2–4 mm long; primary phyllaries 8, 9–11 mm long, mostly lime green to pinkish-rose to lavender, linear-subulate to lanceolate, apices acuminate, outer surfaces glabrate except for the sparingly hispid midrib, apical margins minutely ciliate. Florets 9–11 per capitulum; 11.5–13.5 mm long, tubes 4–7 mm long, ligules ca. 7 mm long, 5-nerved, teeth 5, linear-oblong, 0.07–0.1 mm long, apical surfaces papillate; anthers ca. 5.5 mm long; stigmatic surfaces densely hispid-setose. Cypselae irregularly angled to more often terete, ca. 6.3 mm long, golden yellow to tan, prominently 12–15 costate. Pappus bristles white to tan to yellow, 7–8 mm long, 30–40, margins scabrid.



FIG. 2. *Prenanthes carrii*: A. habit, B. upper bracteal leaves, C. middle leaf, D. basal rosette leaf, E. florets, F. pappus, G. mature achene and H. immature achene with ligule/anther detail. Illustration by Linny Heagy 2004. Specimens used in illustration include a combination of *Singhurst & Singhurst 12496* (BAYLU) and *O'Kennon s.n.* (BAYLU).

Distribution.—Southwest Edwards Plateau (Bandera, Gillespie, Kerr, and Real counties) of Texas (Fig. 1.)

Phenology.—Flowering late August to November.

PARATYPES: TEXAS. **Bandera Co.:** Lost Maples State Natural Area, Upper Can Creek, 17 Nov 1999, *Singhurst 8533* (BAYLU); Love Creek Preserve, The Nature Conservancy of Texas, 2 Nov 2002, *Singhurst 11544* (HOLOTYPE: BAYLU). **Gillespie Co.:** 7 mi N of Harper in rich creek canyon off Threadgill Creek, Oct 1993, *O'Kennon 11914* (TEX-LL). **Kerr Co.:** along rocky spring branch, Lacey's Ranch, 3 Oct 1916, *Palmer 10893* (US); without specific location, 13 Oct 1940, *Parks s.n.* (TAES); 12 mi S of Kerrville along Lamb Creek, Oct 1993, *O'Kennon 11898* (TEX-LL); 5.3 mi N of jct. of Kerr/Bandera County line on Tex. Hwy 16, Upper Lamb Creek, 17 Nov 1999, *Singhurst 8534* (BAYLU); cultivated [propagules from Upper Lambs Creek], 18 Oct 2002, *O'Kennon s.n.* (BAYLU). **Real Co.:** Lost Maples State Natural Area, 27 Oct 2001, *Singhurst 11526* (BAYLU); upper reaches of Mill Creek, Grey Wolfe Ranch, 2 Nov 2002, *Singhurst 11554* (BAYLU).

Prenanthes carrii is morphologically similar to *P. crepidinea* Michx., *P. alata* (Hook.) D. Dietr., *P. sagittata*, (A. Gray) A. Nels., *P. bootii* (DC.) D. Dietr., and *P. barbata*. This group was proposed as a new subsection in Milstead's (1964) unpublished (thus never formalized) dissertation. The group is characterized by paniculate to racemose capitulescences, leaves at least short petiolate, flowers white to creamy and usually numbering 7–38 per capitulum, inner phyllaries 6–15, and outer phyllaries (bracts) mostly 7–13 per capitulum. Leaf characteristics of *P. carrii* resemble the sagittiform shaped leaves of *P. alata*, *P. crepidinea*, and *P. sagittata*. The new species appears to be most closely similar to *P. barbata*, particularly in the paniculate nature of the capitulescence. The two species may be distinguished by the characters referenced in the key. Additional traits distinguishing *P. carrii* from *P. barbata* include its taller height of 80–150 cm, strigose to tomentose vestiture, and primary phyllaries 9–11 mm long. *Prenanthes barbata* is usually 55–125 cm tall, has tomentulose to subarachnose vestiture, and has primary phyllaries 11–14 mm long.

Prenanthes carrii occurs primarily in rich soils in woodlands at the upper reaches of canyons where springs flow due to geologic contacts. Where these contacts occur, there is a vegetation transition between the species of *Quercus laceyi*, *Q. muhlenbergii*, *Q. texana*, and *Acer grandidentatum* and the creekside seepage shelves dominated by *Platanus occidentalis*, *Cephalanthus occidentalis*, *Adiantum capillus-veneris*, *Thelypteris kunthii*, and *Cladium mariscoides*. The species is normally associated with *Aristolochia serpentaria*, *Carex edwardsiana*, *C. planostachys*, *Lindera benzoin*, *Senecio obovatus*, and *Verbesina virginica*. Other central Texas endemics occurring with or near *P. carrii* include *Chaetopappa effusa*, *Clematis texensis*, *Matelea edwardsensis*, *Philadelphus texensis*, *Tragia nigricans*, *Tridens buckleyanus*, and *Styrax plataniifolius* var. *stellatus*.

Etymology.—The species is named in honor of William F Carr of The Nature Conservancy of Texas. Bill is deeply committed to preserving the botani-

cal heritage of Texas and is currently one of the most active plant collectors in the state.

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