## Vascular Plants of Williamson County Nemophila phacelioides – BABY BLUE-EYES [Boraginaceae]

Nemophila phacelioides Nutt., BABY BLUE-EYES. Annual, taprooted, rosetted, 1-stemmed at base, decumbent to ascending, 10-40 cm tall; shoots with similar basal leaves and cauline leaves, sparsely hirsute. **Stems:** cylindric, to 3 mm diameter, green, somewhat fleshy, with internodes to 90+ mm long, with upward-pointing hairs. Leaves: helically alternate and sometimes subopposite (cauline leaves on robust plants), deeply 5-9 pinnately lobed with lateral lobes mostly subopposite, petiolate, without stipules; petiole hemi-cylindric, 20–60 mm long, lacking wings, sparsely hirsute; blade  $\pm$  oblong in outline,  $35-80 \times 24-40(-55)$  mm, dull, lower pairs of lobes often widely spaced and appearing leafletlike, lateral lobes asymmetric, ovate and entire to mitten-shaped often with 2 sublobes or shallow teeth, principal lobes to 24 mm long and wide and with rounded sinuses, pinnately veined having principal veins raised on lower surface, with 1 vein to each sublobe and tooth. Inflorescence: leafy cyme, terminal on each shoot, not 1-sided, buds and open flowers arched but never coiled at tip, flowers on long pedicels, hirsute; bract subtending pedicel = cauline leaf but often displaced above inflorescence; bractlet subtending pedicel displaced, often with decurrent base on axis, axis green below but purple-red on upper side; pedicel cylindric, at anthesis often curved, in range 15–25 mm long increasing to 75 mm long in fruit, hirsute. **Flower:** bisexual, radial, in range 15–25+ mm across; calyx 4–5-lobed (appearing 8-lobed or 10-lobed) having 4 or 5 reflexed appendages from sinuses, green but with a ring of ill-defined purple spots at pedicel, shorthirsute; tube broadly cup-shaped, ca. 2 mm long increasing and becoming somewhat reflexed in fruit, with several stiff hairs opposite zones of nectary; appendages ovate, 3.5-4  $\times$  2–2.5 mm, acute with hard point at tip, midvein not raised on lower surface, shorthirsute: lobes equal, narrowly triangular-ovate, 6.5-8.3 mm long, pinnately veined with midvein raised on lower surface, with longer hairs on margins, lower surface short-strigose with upward-pointing hairs, upper surface glabrous to glabrate; corolla 4–5-lobed, rotate, with 2 scales (appendages) bracketing each filament; tube + throat ca. 3.5 mm long, white on outer surface with a ring of 10 purple, ovate spots (1 mm long) ca. 1.5 mm from base, lacking colored veins, outer surface glabrous, inner surface with papillate-hairy opposite filament; appendages fused longitudinally to corolla tube,  $\pm$  wedge-shaped and cupped or wavy, ca. 1.5 mm long and wide, fleshy, white and stiff papillate-hairy on margin (anemonelike); lobes spreading, overlapping, roundish often with shallow notch at top, 6–9 mm, white in center becoming immediate to dark blue on margins and top, surfaces glabrous but with domed cells; stamens fused to base of corolla tube for 0.2–0.3 mm; filaments suberect, 6.5–7 mm long, fleshy, white, glabrous; anthers nearly versatile, dithecal,  $2.6-3.2 \times ca$ . 1.2 mm, yellowish tinged rose becoming purplish red along valve edges, longitudinally dehiscent; pollen pale rose; nectary disc beneath ovary, ringlike and inconspicuously 5-lobed, not wider than ovary, pale green; **pistil** 1, 6.5–7 mm long; ovary superior, ovoid, green, densely hirsute with ascending stiff hairs, 1-chambered with many ovules; style slightly above stamens, erect, 5–6 mm long, white, 2-branched above midpoint and short-pilose from base approaching fork, the branches ascending, equal or somewhat unequal, ca. 2 mm long; stigmas terminal, short-domelike, cream. Fruit: capsule, loculicidal, dehiscing by 2 valves, (1-)4-seeded, spheroid, (5-)7-9 mm, valves

pale green before drying,  $\pm$  short-strigose with ascending hairs, with persistent style and calyx with appendages. **Seed:** subspheroid to broadly obovoid,  $3.6-4 \times 2.8-3.2$  mm, 1 face often somewhat flattened, minutely pitted (collapsed cells) and also with widely scattered, craterlike pits ca. 0.2 mm across having food bodies for ants, with inconspicuous mass at base.

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