## 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, $10-40 \mathrm{~cm}$ tall; shoots with similar basal leaves and cauline leaves, sparsely hirsute. Stems: cylindric, to 3 mm diameter, green, somewhat fleshy, with internodes to $90+\mathrm{mm}$ 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, $35-80 \times 24-40(-55) \mathrm{mm}$, 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 $15-25 \mathrm{~mm}$ 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 $\times 2-2.5 \mathrm{~mm}$, acute with hard point at tip, midvein not raised on lower surface, shorthirsute; lobes equal, narrowly triangular-ovate, $6.5-8.3 \mathrm{~mm}$ 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 $0.2-0.3 \mathrm{~mm}$; filaments suberect, $6.5-7 \mathrm{~mm}$ 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 $1,6.5-7 \mathrm{~mm}$ 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, $3.6-4 \times 2.8-3.2 \mathrm{~mm}, 1$ 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.
A. C. Gibson

