

## Vascular Plants of Travis County

*Passiflora gossypifolia* – CORONA DE CRISTO, STINKING PASSIONFLOWER [Passifloraceae]

*Passiflora gossypifolia* W. Hamilt. (syn. *P. foetida* var. *gossypifolia*), CORONA DE CRISTO, STINKING PASSIONFLOWER. Perennial herb climber, with tendrils, several-stemmed at base, having long branches, trailing and growing over shrubs; shoots with long internodes and widely spaced leaves, lacking sessile extrafloral nectaries, foliage velveteen with radiating pilose and short-pilose hairs, not glaucous, having stalked glands on leaves and bracteoles, the ellipsoid to narrowly ovoid glandular tip green aging orange to red, diminutive stalked glands shorter, lacking terminal gland, and often whitish, foliage somewhat foul-smelling (foetid) when crushed; tendril (stem tendril) 1 per node, axillary and neighboring pedicel below a vegetative bud (= accessory bud, a future branch) having stalked glands, cylindrical and unbranched, to 200 mm long (straightened), cylindrical, ca. 1 mm diameter, typically forming several–10+ tight coils around support, with pulvinus at base, short-pilose.

**Stems:** cylindrical, to 3 mm diameter, conspicuously pilose and lacked stalked glands.

**Leaves:** helically alternate, shallowly 3-lobed or with 3(5) distinct lobes and lacking sublobes, petiolate with pulvinus, with stipules; stipules 2, attached to node adjacent to base of petiole, crownlike to 7 mm wide and to 5 mm long fringed with narrow triangular lobes often with terminal gland and many stalked glands and diminutive glands, basal tissue ca. 1 mm long, lobes with radiating pilose and short-pilose hairs and the longest lobe sometimes with dwarf branches; petiole pulvinus short and indistinct from petiole axis adjacent stipules, glabrous, axis above stipule cylindrical, to 65 mm long, densely pilose and short-pilose with radiating hairs, upper side of petiole having stalked glands to 1.5 mm long with colorless to greenish stalks and tissue having minute red to rose-red speckles or streaks; blade ovate in outline,  $< 50\text{--}120 \times < 35\text{--}90$  mm, length  $>$  width, closely cordate at base with rounded basal lobes sometimes overlapping, sinuses at same level below midblade, terminal lobe ovate, somewhat low-dentate on margins and with stalked gland extensions of veins, acute at tip, palmately veined with 5(7) principal veins at base raised on both surfaces, vascular base appearing pulvinuslike, upper surface principal veins often reddish and short-pilose with scattered hairs, lower surface pilose and short-pilose especially along veins and having scattered stalked glands, not glaucous. **Inflorescence:** flower solitary at node, axillary and arising beside tendril, bracteate; pedicel with pulvinus at base, spreading to erect, to  $125 \times 1.2$  mm, green, tough, pilose with radiating hairs, approaching top of pedicel having 3 conspicuous, green, feathery bracteoles in a whorl, bracteole  $\pm$  elliptic in outline but skeletonized, ca.  $30\text{--}35 \times 25$  mm (flattened), cagelike around bud but mostly planar with a ribbonlike principal axis and many primary lobes and having stalked glands descending and downward-spreading on lower surface, flat principal axis to 2 mm wide and striped colorless and with light green, lateral lobes to 17 mm long short-pilose and having many stalked and diminutive glands, persistent. **Flower:** bisexual, radial, 50–62 mm across; hypanthium moat-shaped (pedicel indented 4 mm, internally with a thick, recurved lip protruding as nectar chamber; **nectar chamber** bowl-like, ca.  $3 \times 7$  mm, on inner surface striped white and pink-purple, on outer surface white to midpoint, defined above by flaring rim on the inside (limen) arising from the staminal column and a comblike barrier on the outer side arising from hypanthium (operculum), lacking a comblike barrier of elements fused and accordionlike leaning toward center;

**calyx** 5-lobed, arising from hypanthium rim, fused at base, light green; lobes widely spreading, oblong, ca. 25 × 7 mm, light green with margins white or aging lavender, margins 0.7 mm wide at sinus gradually broader to all-white tip, green tissue with 3 principal veins raised on lower surface and with a tail-like, subterminal extension of midvein to 4 mm long beyond the obtuse, white tip, 10–12 mm long, lower surface with pilose hairs along veins above midpoint; **corolla** arising on hypanthium surface, of 5 petals and 2 rings of many filaments (outer and inner corona); petals widely spreading, oblong, ca. 23 × 7 mm, white aging pale lavender, with green midvein raised on lower surface and a pair of inconspicuous lateral veins; outer corona filaments ca. 80 in 2 series, widespread above petals, cylindric and wormlike, to 16–20 mm long, lower (outer) series white to midpoint or blushed darker and above midpoint to light pink-purple, upper series rose-purple on upper side for ca. 5 mm from base, then white then above midpoint light pink-purple; inner corona filaments ascending, many in several series, to 3 mm long and more slender than outer corona filaments, white with minutely papillate, pink-purple tips; **stamens** 5, arising on central column fused to stalk beneath pistil (androgynophore) and forming inner wall of nectar chamber, pink-rose at base to whitish with light crimson spots above, fused portion ± 10 mm long; filaments flat, initially spreading ⊥, tapered to top, 5.5–6 mm long, to 0.5 mm at anther, green with rose-red spots to midpoint, after pollination a short tube and free filaments aging reflexed; anthers exserted, versatile, dithecal, 7–8 mm long, yellow-green, longitudinally and downward dehiscent; pollen greenish yellow; **pistil** 1, stalked (stipe); at anthesis stalk not visible above staminal column, free stipe (gynophore) cylindric, 1.5 × 1 mm, light green; ovary superior, ellipsoid, ca. 4 × 2.5 mm, light green, inconspicuously 3-lobed, appearing glabrous with minute, pimplelike bumps, 1-chambered with ca. 50 ovules attached to 3 long placentae on wall; style base < 0.5 mm long, conspicuously 3-forked, the branches horizontal and widely spreading, ca. 11 mm long, recurved above midpoint with stigmas pointed downward, broadly flaring approaching stigma; stigmas terminal, capitate, hemispheric, 0.7–0.8 × 1.5 mm, light green-yellow, minutely papillate. **Fruit:** berry, on pedicel + stalk (androgynophore) partially wrapped by persistent, feathery bracteoles, often 20–25-seeded attached to 3 placenta along wall (parietal placentation), oblate-spheroid, ca. 30 mm across, red (orange), not glaucous, glabrous, when green fruit wall 1 mm thick around open chamber, wall becoming red fleshy with extensive colorless placental and funicular tissue, pulp most of wall, juicy tissue = arils of seeds; androgynophore ± 10 mm long; style sometimes persistent on top of fruit. **Seed:** completely enclosed by juicy aril attached at base of seed; aril saclike, to 8.5 × 4.5 mm, colorless covered with colorless skin, watery and sweet drying tough and brownish; seed shield-shaped, ca. 5 × 3.5 × 1.7 mm, brown, truncate on top, with wide pits and a network of ridges of faces and 2 files of piles along edge.

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