

BLACK SWALLOW-WORT

[*Cynanchum louiseae* Kartesz & Gandhi;
Cynanchum nigrum (L.) Moench.;
Vincetoxicum nigrum (L) Moench.]
CYLO11

Habit: Herbaceous milkweed; perennial, twining, and climbing vine^{9,16,8}; clonal¹³; tissue produces milky juice when broken^{9,16,8}.

Reproduction: By seed^{9,13} and deep (50 cm, 19½ in) rhizomes; monoecious^{18,5}; selfing occurs but fewer viable fruit produced^{13,6}.

Leaves: Opposite, entire, oblong to ovate, 5-10 cm (2-4 in) long; acuminate; round or subcordate base; petiole short^{16,9,8,3}; glabrous, but veins and margin may have short curved hairs¹⁵.



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Stems: Glabrous or with short curved hairs¹⁵; twining¹³; diploid and tetraploid races exist¹⁷; height typically 1-2 m (3-6½ ft)¹³.

Flowers: Small (6-8 mm, ½ - 5/16 in) 6-10 in an umbel-like cyme (central flower blooms first)^{9,16,13}; cymes located at every node except the bottom 3-4¹³; corolla purple-black, 5 fleshy lobes with tiny hairs^{9,16}; corona (outgrowths of tissue from corolla base) inconspicuous⁹; peduncles 1-3 cm (7/16 - 1 3/16 in) long¹⁷; remain open 6-8 days; nectar smells of rotting fruit, strongest mid-day; pollinated primarily by flies¹³; May-Sept^{16,9}.

Fruits/Seeds: Fruit a smooth, slender follicle 4-7 cm (1 5/16 - 2 3/4 in) long^{16,9,13}; peduncles 1-3 cm (7/16 - 1 3/16 in) long¹⁷; each follicle contains many comose (tufts of long silky hairs) seeds, released in the fall after the fruit splits lengthwise; primarily wind dispersed^{13,9} with most seed falling within a few meters of the parent plant²; seeds have multiple embryos (polyembryonic) that produce multiple seedlings^{17,5}; seed viability of selfed flowers and open-pollinated flowers not significantly different; no dormancy period or stratification required; germination rates range between 30% and 50%; seed bank not confirmed; seeds germinate in spring or fall¹³; seed production lower in shaded sites^{5,18}.

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Cynanchum louiseae Kartesz & Gandhi

UGA05800011

Habitat: Introduced from southwestern (Mediterranean) Europe¹³, earliest records in U.S. from Ipswich, MA in 1854; disturbed areas, roadsides, fence rows, old fields, barrens, and woodlands; preference for calcareous soils¹⁷; tolerates a wide range of soil moisture and full sun and closed canopy forests; forms monospecific populations under all light conditions⁵.

Comments: The related nonnative *C. rossicum* and *C. vincetoxicum* may be invasive; *C. vincetoxicum* (yellowish, white flowers), native to Eurasia^{9,12}, is less common; *C. rossicum*, from Ukraine and Russia, is most abundant in the lower Great Lakes Basin¹⁷; *C. rossicum* (lighter colored flowers and longer peduncles¹⁷) forms monospecific populations, but can not spread by rhizomes¹; *C. rossicum* reduces arbuscular mycorrhizal fungi activity¹⁰, perhaps due to allelopathic effects,¹ and its germination rates are as high as 72% with 71-100% survival¹¹; monarch butterfly oviposits eggs on *C. louiseae* or *C. rossicum*, but prefers its native host plant^{6,14}; monarch larvae that attempt to feed on *C. louiseae* or *C. rossicum* are unlikely to survive¹⁴; presence of both species reduces invertebrate and vertebrate diversity in infested areas^{5,7}.

Similar Native Species: Sandvine (*C. laeve*), leaves cordate, smaller flowers white to green, corona lobes evident and erect; maroon Carolina milkvine (*Matelea carolinensis*), leaves cordate, flowers larger, fruit covered in small, sharp projections^{9,3}.