



Black swallow-wort

Vincetoxicum nigrum (L.) Moench, *Cynanchum louiseae*
(aka Louise's swallow-wort, black dog-strangling vine)



PHOTO: Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Overview:

Black swallow-wort is native to northern and southwestern Europe and was introduced as an ornamental. It is a perennial, non-branching vine with a strongly rhizomatous root system. The plant grows by climbing other vegetation, eventually blocking light to other vegetation and creating tangled thickets.³ Swallow-wort reproduces both by seed and vegetatively. Vines die back to the ground in fall but dead stems may persist twined around supporting vegetation. Lower stem nodes can take root. Flowers can self-pollinate but are also pollinated by insects.¹

Black swallow-wort is a member of the milkweed family although taxonomy sometimes places it in the dogbane family. It can be confused with *Lonicera* species however swallow-wort has a milky latex in the stems.⁵

Black swallow-worts flower May through July and seed dispersal occurs early fall. Seeds germinate in the spring or fall.¹ Seed number per flower is strongly associated with light conditions. Seeds are wind dispersed although most fall near the parent plant and seed

longevity is unknown.²

Monarch butterflies, which are obligate pollinators of milkweeds, have been observed to oviposit on black swallow-wort with the eggs and larvae experiencing high levels of mortality.²

Habitat:

Black swallow-worts tolerate a wide range of moisture regimes and soil pH. It can grow in calcareous soils, shallow soils over limestone bedrock, sandy loams, deep loams, rocky and clay loam, talus, gravelly shores, and tolerate seasonal flooding.¹ It grows in all light conditions from full sun to densely shaded, although shaded plants may not produce seed until disturbance opens the canopy.²

Identification:

Stems: Are green, un-branching vines containing a milky sap and growing to 2 m in length. Vines may be erect or twining depending on available support.¹

Leaves: Are opposite, dark green, oval, and

shiny with entire margins. Leaves are 7.5-10 cm x 5-7.5 cm and borne on short petioles.²

Flowers: Clusters of 6-10 flowers are borne on short stems from the leaf axils. Flowers are five lobed, dark purple, about 0.5 cm in diameter and have short, white hairs on the upper surface.² Sepals are triangular and about 1-2 mm long. The stamens and stigma are fused into a yellowish-green gynostegium surrounded by a corona about 0.5 mm tall.⁵ The fruits are slender follicles 4-7 cm long, often borne in pairs which split open lengthwise to release the seeds. Seeds are 6-8 x 3-5 mm in area with a narrow, membranous marginal wing and 2 cm tufts at the tip.¹

Prevention:

Black swallow-wort requires some disturbance to establish, whether natural or man-made. Native species which provide early season competition can potentially exclude swallow-wort. Open areas downwind of infestations should be a focus of early detection.²

Control:

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Black swallow-wort (Continued)

Grazing: Horses have been observed to avoid it¹ and grazing by livestock would only remove above ground portions followed by re-sprouting². Invasive plants should never be considered as forage.

Mechanical: Digging would only be practical for small populations or isolated plants. Care must be taken to remove all vines and root material.¹ Hand pulling is ineffective for control as stems break at the root crown and then re-sprouting occurs - the same occurs for mowing. Mowing and hand pulling can prevent seed production. Any type of cultivation would only increase patch size.²

Chemical: Currently no selective herbicides are registered for use on black swallow-wort. Always check product labels to ensure the herbicide is registered for use on the target plant in Canada by the Pest Management Regulatory Agency. Always read and follow label directions. Consult your local Agricultural Fieldman or Certified Pesticide Dispenser for more information.

Biological: In 2006, a team from CABI's centre in Switzerland and the University of Rhode Island, USA started surveying potential biological control agents for swallow-worts. Five potential insect biological control agents were prioritized.⁴



Plant



Seed

PHOTOS: Leslie J. Mehrhoff, University of Connecticut, Bugwood.org



Foliage



Seed

PHOTOS: Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

PHOTO: Bruce Ackley, The Ohio State University, Bugwood.org

REFERENCES

- 1 Black Swallow-wort > Fire effects Information System. <https://www.fs.usda.gov/database/feis/plants/vine/cynspp/all.html>
- 2 *Cynanchum louiseae*. BugwoodWiki. https://wiki.bugwood.org/Cynanchum_louiseae/EDDMapSWest
- 3 Bulletin 2523, Black Swallowwort. Maine Natural Areas Program and University of Maine Cooperative Extension. https://www.maine.gov/dacf/mnap/features/invasive_plants/cynanchum.htm
- 4 Controlling swallow-worts the sustainable way. CABI. <https://www.cabi.org/projects/controlling-swallow-worts-the-sustainable-way/>
- 5 Sondag, R. *Cynanchum louiseae*. [PDF] *Cynanchum louiseae* Kartesz & Ghandi - UM Personal World Wide. <https://lsa.umich.edu/eeb/people/faculty-emeriti/rburnham.html>