

TRIPHORA TRIANTHOPHORA (Sw.) Rydb.  
Three-birds Orchid

FAMILY: Orchidaceae

HABIT: Herbaceous perennial, 0.3-3.0 dm.; flowering late July to August (see Comments below for a discussion of the flowering period).

SIMILAR SPECIES: Very distinctive; unlike any other flower in mid-summer in Ohio's woodlands.

TOTAL RANGE: FL to TX, n. to s. ME, NY, OH, s. MI, s. WI, and IA.

STATE RANGE: Formerly widespread over all of the state except the south-east quarter with pre-1960 records from 13 counties: Clark, Cuyahoga, Erie, Fairfield, Hamilton, Huron, Lake, Lorain, Medina, Ross, Stark, Summit, and Wayne. There are post-1960 reports from 7 counties: Franklin, Fulton, Greene, Highland, Licking, Preble, and Warren. Braun (1967) also lists it from 4 other counties: Adams, Ashtabula, Champaign, and Delaware. Not all these populations may be extant.

STATE STATUS: 1980 to present: Threatened.

HABITAT: Mature deciduous woodlands, especially beech-sugar maple forests, the plants often half-buried in deep leaf litter.

HAZARDS: Drying of forest humus following logging; trampling and compaction of the forest floor; over-collecting.

RECOVERY POTENTIAL: Unknown, but probably poor because of this species' peculiar life history (see Comments below).

INVENTORY GUIDELINES: Collecting should be discouraged.

COMMENTS: This species is seldom seen and is little understood by anyone. It is graceful and diminutive when in bloom, but it is almost impossible to locate the species at any other time of the year. Few people investigate our deciduous woodlands during mid-summer, so this species may well be over-looked. A summary of its life history will illustrate the difficulties of finding the plant.

Triphora lives as a saprophyte in the forest humus until late July. Nothing is visible above ground until a tiny pale green shoot surfaces. This event is triggered by a little-known balance of soil moisture and nighttime air temperature. By mid-August, three flowers are produced on a delicate, nearly leafless stalk. Each of these three flowers blooms but a single day, opening at dawn and lasting only until fertilization, perhaps but a few hours later.

All plants in a given population or area seem to bloom synchronously over a three day period. By the beginning of September, nothing remains but a dried, brown seed stalk. This, too, quickly vanishes. The orchid continues to live a saprophytic existence under the ground during the winter and spring.

## SELECTED REFERENCES:

Argus, G.W. and D.J. White. 1982. Atlas of the rare vascular plants of ontario: Part 1. National Museums of Canada, Ottawa Canada. n.p.

Braun, E.L. 1967. The Monocotyledoneae of Ohio : Cat-tails to orchids. The Ohio State University Press, Columbus, OH. 464 p.

Case, F.W. 1964. Orchids of the western Great Lakes region. Cranbrook Institute of Science Bull. No. 48, Bloomfield Hills, MI. 147 p.

Luer, C.A. 1975. The native orchids of the United States and Canada excluding Florida. New York Botanical Garden, New York, NY. 361 p.

Van Arsdale, J.M. 1982. A new northern station for *Triphora trianthophora*. Mich. Bot. 21: 93-94.

Zavity, C.H. and L.O. Gaiser. 1956. Notes on *Triphora trianthophora* in Ontario. Rhodora 58: 31-35.

Zika, P.F. 1983. *Triphora trianthophora* in Massachusetts and Vermont. Rhodora 85: 123-124.



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