



Maine Department of Conservation
Natural Areas Program

Cardamine maxima (Nutt.) Wood

Large Toothwort

Habitat: By woodland streams or on calcareous wooded slopes. [Hardwood to mixed forest (forest, upland)]

Range: Southern Maine to Wisconsin, South to West Virginia and Tennessee.

Phenology: Flowers April - May.

Family: Brassicaceae

Aids to Identification: This toothwort can be distinguished from the similar two-leaved toothwort (*Cardamine diphylla*) by the presence of three stem leaves usually arranged alternately along the stem. The rootstock is jointed (opposed to continuous in *Cardamine diphylla*). The flowers are white or pale purple, 1-2 cm wide.

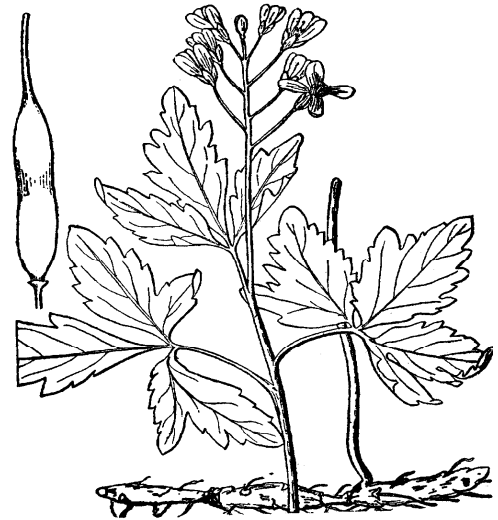


Illustration from Britton & Brown's Illustrated Flora of the Northern United States and Canada, 2nd ed.

Ecological characteristics: Very little is known about the ecological characteristics of this species in Maine. It is thought to be a fertile hybrid between *Cardamine concatenata* and *Cardamine diphylla*. The fruits are sometimes sterile and intermediate morphology.

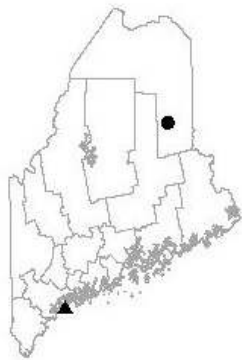
Synonyms: Also known as *Dentaria maxima* or *Cardamine maxima*.

Rarity of *Cardamine maxima*

State Rank:	S1	Critically imperiled in Maine because of extreme rarity or vulnerability to extirpation.
New England Rank:	INDT	Indeterminate. Under review for inclusion in appropriate division. Taxonomy, nomenclature, or status not clearly understood.
Global Rank:	G5	Demonstrably widespread, abundant, and secure globally.

Status of *Cardamine maxima*

Federal Status:	None	No Federal Status.
State Status:	Special Concern	

Known Distribution in Maine:

- ▲ Historical (before 1983)
- Recent (1983 - present)

This rare plant has been documented from a total of 2 town(s) in the following county(ies): Aroostook, Cumberland.

Dates of documented observations are: 1905, 2003

Reason(s) for rarity:

At northern limit of range; habitat being depleted.

Conservation considerations:

Unclear how forestry practices would affect populations.

The information in this fact sheet was downloaded from the Natural Areas Program's Biological and Conservation Database on 06 MAY 2004. We are grateful to our Botanical Advisory Group for additional information on particular species, and in particular, to Arthur Haines for his assistance with identifying characteristics and taxonomic questions. Nomenclature follows Haines and Vining's *Flora of Maine* (V.F. Thomas Press, 1998); where older works refer to a plant by another name, it is given under "Synonyms". The Natural Areas Program, within the Department of Conservation, maintains the most comprehensive source of information on Maine's rare or endangered plants and rare or exemplary natural communities, and is a member of the Association for Biodiversity Information.

If you know of locations for this plant or would like more information on this species, please contact the Natural Areas Program
State House Station 93, Augusta, Maine 04333; telephone (207) 287-8044.

