

# *Echinocystis lobata*



Taxon	Family / Order / Phylum
<i>Echinocystis lobata</i> (Michx.) Torr. & Gray.	Cucurbitaceae / Cucurbitales / Plantae

## COMMON NAMES (English only)

Wild Cucumber

Wild Balsam Apple

## SYNONYMS

*Micrampelis lobata* (Michx.) Greene

*Sicyos lobata* Michx.

*Echinosystis echinata* (Mühl.) Britt., Sterns et Poggenbg.

*Echinosystis echinata* (Torrey & A. Gray) N.L. Britton & al.

## SHORT DESCRIPTION

This annual growing vine can climb up to 12 m. It is a very fast growing plant, producing many branches at a fast rate. It germinates in May, flowers from July to September and leaves die in October. The flowers are monoecious and greenish to white. Both sexes can be found on the same plant. The wild cucumber is pollinated by insects but it is also self-fertile. The plant is often damaged by late and early frosts.

## BIOLOGY/ECOLOGY

### Dispersal mechanisms

Seeds fall down out of the fruits which open when mature. The seeds are relatively heavy. Additionally, the seeds are often transported by water during flooding along river margins. Many seedlings are found beneath old vines in the following years.

### Reproduction

Flowers are pollinated by insects. Relatively high soil temperatures are necessary for seeds to germinate in spring.

### Known predators/herbivores

In North America, the striped cucumber beetle (*Acalymma vittata* Fab) is known to be a herbivore and a transmitter of cucumber-wilt bacteria. *Anasa armigera* Say (Hemiptera, Heteroptera) was recorded as another herbivore in the native range.

### Resistant stages (seeds, spores etc.)

Seeds in the soil may remain viable for more than a year.

## HABITAT

### Native (EUNIS code)

G: Woodland, forest and other wooded land, C3: Littoral zone of inland surface water bodies.

### Habitat occupied in invaded range (EUNIS code)

C3: Littoral zone of inland surface water bodies, E5: Woodland fringes and clearings, tall form stands, F9: Riverine and fen scrubs, G1: Broad leaved deciduous woodland, I2: Cultivated areas of gardens and parks.

### Habitat requirements

It usually grows in floodplains and forest fringes, and is therefore associated with high light levels.



Close-up of *Echinocystis lobata*

Photo: Stefan Klotz

## DISTRIBUTION

### Native Range North America

Saskatchewan and southwards to Texas.

### Known Introduced Range

Temperate and continental Europe




### Trend

There has been increasing invasion within the last twenty years along the main rivers, in floodplains from Western to Eastern Europe (up to the Asian border in Russia).

## MAP (European distribution)



### Legend

	Known in country		Known in CGRS square		Known in sea
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## INTRODUCTION PATHWAY

The plant was introduced in late 19<sup>th</sup> and early 20<sup>th</sup> century as an ornamental and medical plant and planted in several Botanical gardens. The first information on escaped plants is from Central and East Europe (1906 – Slovakia).

## IMPACT

### Ecosystem impact

This vine branches very fast, covering large areas and overgrowing native vegetation. Its spatial occupation competes with native species.

### Health and Social Impact

The plant contains toxic substances (cucurbitacines).

### Economic Impact

Unknown.

## MANAGEMENT

### Prevention

Planting as an ornamental plant in and near floodplains should be avoided.

### Mechanical

Seedlings can be removed easily.

### Chemical

Herbicide use is impossible in floodplain areas.

**Biological**

Efficient biological control methods are not available.

**REFERENCES**

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