

Akebia quinata

Chocolate vine, five-leaf Akebia

Introduction

Native to eastern Asia, the genus *Akebia* consists of five species, with four species and three subspecies reported in China^[168]. Members of this genus are deciduous or semi-deciduous twining vines. The roots, vines, and fruits can be used for medicinal purposes. The sweet fruits can be used in wine-making^[4].

Taxonomy:

FAMILY: Lardizabalaceae

Genus: *Akebia* Decne.



Akebia quinata leaves. (Photo by Shep Zedaker, Virginia Polytechnic Institute & State University.)

Species of *Akebia* in China

Scientific Name	Scientific Name
<i>A. chingshuiensis</i> T. Shimizu	<i>A. quinata</i> (Houtt.) Decne
<i>A. longeracemosa</i> Matsumura	<i>A. trifoliata</i> (Thunb.) Koidz

Description

Akebia quinata is a deciduous woody vine with slender, twisting, cylindrical stems bearing small, round lenticels on the grayish brown surface. Bud scales are light reddish-brown with an imbricate arrangement. Leaves are palmate, alternating along the stems or

or six to seven papery leaflets that are obovate or obovately elliptic, 2-5 cm long, 1.5-2.5 cm wide, with a round or emarginate apex and a round or broadly cuneate base. Infrequently blooming, the inflorescence is an axillary raceme of fragrant flowers appearing from April to May. The lowest two flowers are

male and the rest are female. Appearing from June to August, oblong or elliptic purplish fruits split open when mature, revealing dark, brownish, flat seeds arranged irregularly in rows^[4].

Habitat and Distribution

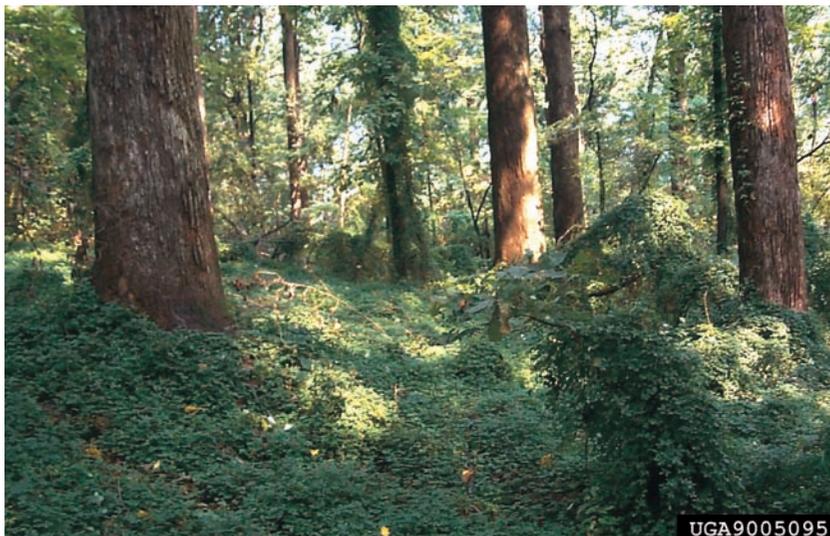
A. quinata grows near forest margins along streams, as scrub on mountain slopes at 300 - 1500 m elevation, in most of the provinces through which the Yellow River flows^[4]. It has a native range in Anhui, Fujian, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Shandong, Sichuan, Zhejiang, and is recorded as *Akebia quinata* var. *polyphylla* Nakai in Shaanxi, and possibly Gansu provinces [52] [66] [68] [77] [97] [101] [157] [168].

Economic Importance

In China, chocolate vine is one of the most ancient traditional medicines. Stems, roots, and fruits are medically useful. In addition, the edible fruits have a sweet taste. Oil extracted from the seeds is used in soap-making. To date, no ecological impact in China has been reported^{[66][4]}.

Related Species

Akebia quinata has five leaflets per leaf, *A. trifoliata* (Thunb.) Koidz has three leaflets per leaf, hence the name "three-leaf akebia". Besides the subspecies *trifoliata*, two additional subspecies of *A. trifoliata* have been reported in China.

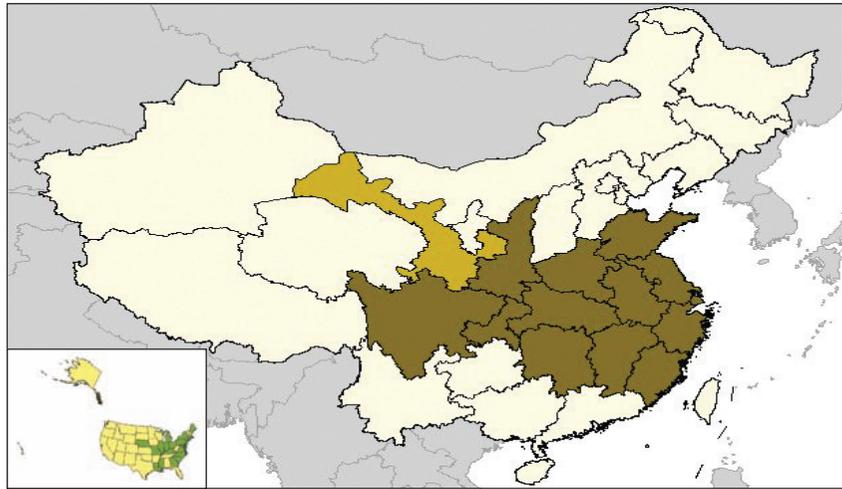


Thick growth of *Akebia quinata* in a forest understory. (Photo by Shep Zedaker, Virginia Polytechnic Institute & State University.)

They are *A. trifoliata* subsp. *australis* and *A. trifoliata* subsp. *longisepala* H. N. Qin^[168].

Natural Enemies of *Akebia*

Four species of fungi have been found in association with members of the genus *Akebia*. Three fungi can attack both five-leaf akebia and three-leaf akebia. Three lepidopterans are known to damage five-leaf akebia, *Ophideres fullonica* (Linnaeus), the most common, is also a serious orchard pest.



Fungi

Phylum	Family	Species	H.R.	Ref.
Ascomycota	Erysiphaceae	<i>Microsphaera akebiae</i> Sawada	o	22
		<i>Microsphaera penicillata</i> (Wallr.) Lév.	p	23 [†]
	Microthyriaceae	<i>Muyocopron smilacis</i> (De Not.) Sacc.	oo	23 [‡]
Basidiomycota	Incertae sedis	<i>Aecidium akebiae</i> Henn.	o	23

[†]Recorded as *Microsphaera alni* (Wallr.) Salm.

[‡]Recorded as *Myiocopron smilacis* (de Not.) Sacc.

Arthropods

Order	Family	Species	H. R.	Ref.
Lepidoptera	Geometridae	<i>Evecliptopera decurrens</i> (Moore)	o	177
	Noctuidae	<i>Ophideres fullonica</i> Linnaeus	m	158
			p	67
			m	205
			m	65
	Tortricidae	<i>Archips asiaticus</i> (Walsingham)	p	141

[†] recorded as *Ophideres fullonia* (Clerck)