

Wisteria species

Wisteria

Introduction

The genus *Wisteria* contains approximately ten members occurring in East Asia, North America and Australia. Five species and one form are reported from China^[174].

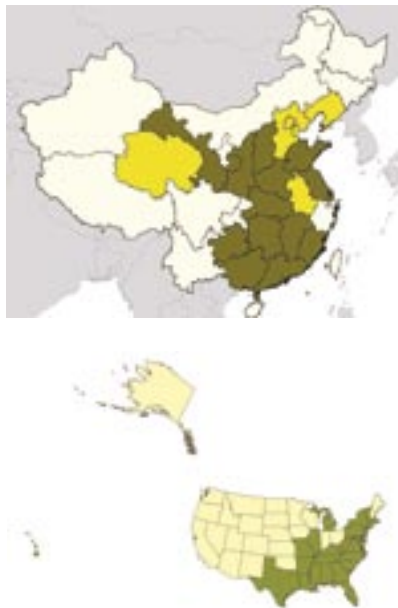
I. *Wisteria sinensis* Chinese wisteria

Taxonomy

Order: Rosales
Suborder: Leguminosae
Family: Leguminosae (Fabaceae)
Subfamily: Papilionoideae
Tribe: Tephrosieae
Genus: *Wisteria* Nutt.
Species: *Wisteria sinensis* (Sims) Sweet.

Description

Wisteria sinensis is a deciduous climbing vine. The stout stem, covered with glabrescent white hairs, twines clockwise. Winter buds are ovate. The imparipinnate leaf is 15-25 cm long, and composed of 3-6 pairs of leaflets, which are ovoid elliptic to ovoid lanceolate, acuminate



Species of *Wisteria* in China

Scientific Name	Scientific Name
<i>W. sinensis</i> (Sims) Sweet	<i>W. venusta</i> Rehd. et Wils.
<i>W. brevidentata</i> Rehd.	<i>W. floribunda</i> (Willd.) DC.
<i>W. villosa</i> Rehd.	

or somewhat caudate apically and obtuse, cuneate or asymmetrical at the base, 5-8 cm in length and 2-4 cm in width decreasing in size along the stem from the base to the apex. The caduceus stipule is linear whereas the stipel is bristle-like and persistent. The inflorescence, a pendulous flower cluster, appears in the terminal bud or axillary bud of the previous year's twigs. The clusters are 15-20 cm in length and 8-10 cm in diameter. The axil is villous. Bracts are lanceolate and caducous. The fragrant flowers are borne on a slender pedicel 2-3 cm long. The calyx is campanulate or cup-shaped, 5-6 mm long and 7-8 mm wide, with two obtuse teeth on the upper side and three ovoid triangular teeth on the lower side. Corollas are sericeous, obtuse and bifid on the upper edge and trifid on the lower edge. Petals are purple. *W. sinensis* blooms from mid April to early May, followed in June to August by persistent, oblanceolate, tomentose pods, 10-15 cm long and 1.5-2 cm wide, containing 1-3 brown, oblate seeds^[174].

Habitat

W. sinensis occurs in valleys, mountain forests, and on slopes at elevations of

500-1800 m^[82, 174].

Distribution

W. sinensis occurs in Guizhou, Guanxi, Henan, Shaanxi, Yunnan provinces and southern Hebei province.^[174]

Economic Importance

W. sinensis is usually planted to climb on a trellis as an ornamental. The seeds contain sparteine which is considered to be medicinally useful. The bark is a fiber source^[82, 88, 174].



Related Species

W. sinensis (Sims) Sweet f. *alba* (Lindl.) Rehd. et Wils. can be distinguished from *W. sinensis* (Sims) Sweet by flower color. The former is white and the latter is purple. *W. sinensis* f. *alba* is native to Hubei province and is widely cultivated throughout the nation^[174].



II. *Wisteria floribunda* Japanese wisteria

Taxonomy

Order: Rosales
Suborder: Leguminosae
Family: Leguminosae (Fabaceae)
Subfamily: Papilionoideae
Tribe: Tephrosieae
Genus: *Wisteria* Nutt.
Species: *Wisteria floribunda* (Willd.) DC.

Description

W. floribunda is a deciduous vine with reddish-brown bark. Unlike, *W. sinensis*, the stem of *W. floribunda* twines counter-clockwise. The slender, brown stem is densely branched and pubescent when

young becoming glabrous as it grows. The pinnately compound leaves are about 20-30 cm long, and composed of 5-9 pairs of leaflets, each of which is papery thin, 4-8 cm long and 1-1.25 cm wide with an acuminate apex and obtuse or somewhat asymmetric base with an appressed pubescence when young, ovoid lanceolate and gradually narrowing downward along the leaf axil. In late April to mid May, racemes, about 30-90 cm in length, appear in the terminal axil, blooming sequentially upwards. Each floret appears on the inflorescence, from base to apex along the densely pubescent rachis, becoming about 1.5-2 cm in length. Calyx is cup-shaped, 4-5 mm long and 5-6 mm wide, and covered with the soft, silky hairs. Corollas are violet to blue violet. The fruits follow in May to July, as oblanceolate, tomentose pods, 12-19 long and 1.5-2 cm wide, containing 3-6 glossy, orbicular, violet purple seeds, about 1-1.4 cm^[174].

Distribution

W. floribunda is native to Japan and introduced to China where it is cultivated nationwide^[174].

Natural Enemies of *Wisteria*

Only two species of fungi have been reported to occur on members of the genus *Wisteria*. Eighteen species of arthropods are associated with *W. sinensis*. Two out of the 18 species may be host specific.



Fungi

Phylum	Family	Index of Fungi	H. R.	Ref.
Anamorphic	<i>Leptosphaeria</i>	<i>Coniothyrium kraunhiae</i> Miyake	m [†]	[26]
Anamorphic	<i>Mycosphaerella</i>	<i>Pseudocercospora wisteriicola</i> (J.M. Yen) J.M. Yen	m	[129]

[†] Can attack *Wisteria sinensis*

Arthropods

Order	Family	Species	H. R.	Ref.
Coleoptera	Curculionidae	<i>Episomus chinensis</i> Faust	p [†]	[178]
Homoptera	Aphididae	<i>Aphis craccivora usuana</i> Zhang	p [†]	[113]
		<i>Aulacophoroides hoffmanni</i> (Takahashi)	m [†]	[205]
	Cicadellidae	<i>Tettigoniella albomarginata</i> (Signoret)	p [†]	[113]
			p [†]	[57]

Order	Family	Species	H. R.	Ref.
Lepidoptera	Gelechiidae	<i>Dichomeris oceanis</i> Meyrick	p [†]	[78]
	Limacodidae	<i>Parasa sinica</i> Moore	p [†]	[78]
	Lycaenidae	<i>Celastrina argiola</i> (L.)	p [‡]	[219]
		<i>Curetis acuta</i> Moore	p [†]	[178]
	Lymantriidae	<i>Cifuna locuples</i> Walker	p [†]	[212]
			p [†]	[75]
			p [†]	[178]
		<i>Euproctis flava</i> (Bremer)	p [†]	[166]
			p [†]	[212]
			p [†]	[75]
	Noctuidae	<i>Catocala patala</i> Felder & Rogenhofer	m [‡]	[224]
		<i>Hypopyra vespertilio</i> (Fabricius)*	m [‡]	[224]
	Notodontidae	<i>Pterostoma sinicum</i> Moore	p [‡]	[4]
			p [‡]	[75]
	Nymphalidae	<i>Neptis soma</i> Moore	p [‡]	[219]
Saturniidae	<i>Loepa damaritis</i> Jordan	p [†]	[226]	
Tortricidae	<i>Homona magnanima</i> Diakonoff	p [†]	[75]	
		p [†]	[78]	
Thysanoptera	Thripidae	<i>Frankliniella intonsa</i> (Trybom)	p [†]	[66]
		<i>Megalurothrips distalis</i> (Karny)	p [†]	[75]
			p [†]	[66]

*Recorded as *Enmonodia vespertilio* (Fabricius)

† Can attack *Wisteria sinensis*