

***Pueraria montana* var.
lobata (*Pueraria lobata*)**

Kudzu

Introduction

The genus *Pueraria* contains approximately 35 species, occurring in East and Southeast Asia. Eight species have been reported in China with distribution extending from northwestern and central southern into southeastern China^[176, 177].

Taxonomy

- Order:** Rosales
- Suborder:** Leguminosae
- Family:** Leguminosae (Fabaceae)
- Subfamily:** Papilionoideae Giseke
- Tribe:** Phasoleae DC.
- Subtribe:** Glycininae Benth.
- Genus:** *Pueraria* DC.
- Species:** *Pueraria montana* var. *lobata* (Willd.) Sanjappa & Pradeep

Description

Pueraria montana var. *lobata* is a hirsute woody vine that can grow to a height of 8 meters in China. It has a xyloid stem base, and starchy root tubers. The leaves are 3-leaflets, pinnately compound, with ovoid-oblong, vertically veined stipules. Each leaflet is 3-lobed, or occasionally entire with linear-lanceolate stipules equal to or longer than the petiolule. The terminal leaflet, 7-15 cm long and 5-12, wide is broadly to obliquely ovate. The lateral leaflets are slightly smaller, obliquely ovate, with light yellow appressed pilose hairs on the upper surface and more densely so on the underside. Racemes, about 15-30 cm in length, bear flowers mainly in the upper half of the inflorescence. The caducous bracts are linear-lanceolate to linear, and longer than the bractlets, which are ovate, less than 2 mm in length. Florets occur in cluster of three at the rachis node. Calyces are campanulate, lanceolate-lobed, 8-10 mm long, and covered with yellowish brown hairs.



Species of *Pueraria* in China†

Scientific Name	Scientific Name
<i>P. alopecuroides</i> Craib	<i>P. peduncularis</i> (Grah. ex Benth.) Benth.
<i>P. calycina</i> Franch.	<i>P. phaseoloides</i> (Roxb.) Benth.
<i>P. edulis</i> Pampan.	<i>P. stricta</i> Kurz
<i>P. lobata</i> (Willd.) Ohwi‡	<i>P. wallichii</i> DC.

† Nine species are listed in the revised FOC.

‡ *P. lobata* (Willd.) Ohwi is commonly accepted as *Pueraria montana* var. *lobata* (Willd.) Sanjappa & Pradeep

Corollas are purple, 10-12 mm long, with a 2-lobed, obovate flag at the base. Flowers appear from September through October, consequently followed in November to December by brownish hirsute, flat, oblong pods 5-9 cm long and 8-11 cm wide^[176].

Habitat

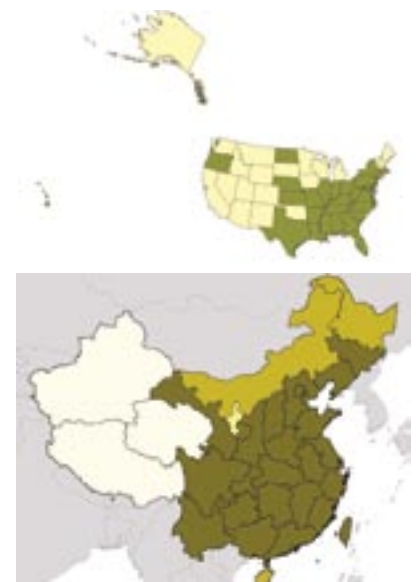
In general, *P. Montana* var. *lobata* occurs in dense or sparse forests in mountainous areas^[176]. Additional habitats include warm, moist hillsides, roadsides, and streamsides at elevations of 700-1500 m in the Qinling Mountains, northwestern China; and broadleaf forests, forest edges, thickets, and undisturbed mountains in northeastern China^[52, 82].

Distribution

The distribution of *P. montana* var. *lobata* has been reported from most of the provinces in China except Qinghai, Tibet, Xinjiang^[176], and possibly Ningxia^[141].

Economic Importance

The root of *P. montana* var. *lobata* is medically useful in China. The plant is a fiber source for weaving and papermaking^[176]. *P. montana* is also planted for soil conservation in some areas in China^[82, 88].



Related Speceis

Pueraria montana var. *montana* (Lour.) Merr, accepted as *Pueraria lobata* var. *montana* (Lour.) van der Maesen in *FRPS*, flowers from July through September and fruits from October through December. It occurs in thickets and sparsely forested mountainous areas, in the provinces of Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hubei, Hunan, Jiangxi, Sichuan, Taiwan, Yunnan, and Zhejiang^[176]. *Pueraria*

lobata var. *thomsonii* (Benth.) van der Maesen, also known as *Pueraria lobata* var. *thomsonii* Benth, may be listed as a separate species in the revised *Flora of China*(FOC). It occurs in thickets and sparse forests, flowering in September and fruiting in November in the provinces of Guangdong, Guangxi, Hainan, Jiangxi, Sichuan, Yunnan, and Zhejiang^[177].

Natural Enemies of Pueraria

Twelve species of fungi have been reported from members of the genus *Pueraria* in China. Three Anamorphic *Mycosphaerella* species, *Cercospora pueraricola* W. Yamam., *Mycovellosiella puerariae* D.E. Shaw & Deighton, *Pseudocercospora puerariae* (Syd. & P. Syd.) Deighton, have been recorded only from *Pueraria montana* var. *lobata*. Forty-eight arthropod species have been found.

Fungi

Phylum	Family	Species	H. R.	Ref.
Ascomycota	Erysiphaceae	<i>Erysiphe puerariae</i> R.Y. Zheng & G.Q. Chen	po	[24]
		<i>Pleochaeta polychaeta</i> (Berk. & M.A. Curtis) Kimbr. & Korf	po	[26]
	Meliolaceae	<i>Meliola banosensis</i> Syd.	o	[72]
			p	[26]
Mycosphaerellaceae	<i>Mycosphaerella puerariae</i>	o	[26]	
Basidiomycota	Ceratobasidiaceae	<i>Thanatephorus cucumeris</i> (A.B. Frank) Donk	p	[26]
	Phakopsoraceae	<i>Phakopsora pachyrhizi</i> Syd. & P. Syd.	p	[26]
Chytridiomycota	Synchytriaceae	<i>Synchytrium minutum</i> (Pat.) Gäum.	oo	[26]
Anamorphic <i>Mycosphaerella</i>		<i>Cercospora pueraricola</i> W. Yamam.	m	[26]
		<i>Mycovellosiella puerariae</i> D.E. Shaw & Deighton	m	[65]
		<i>Pseudocercospora puerariae</i> (Syd. & P. Syd.) Deighton	m	[129]
		<i>Pseudocercospora puerariicola</i> (W. Yamam.) Deighton	o	[129]
Anamorphic <i>Pleochaeta</i>		<i>Streptopodium</i> spp.	po	[24]

Arthropods

Order	Family	Species	H. R.	Ref.
Coleoptera	Chrysomelidae	<i>Brachyphora nigrovittata</i> Jacoby	po	[201]
		<i>Gonioctena flexuosa</i> (Baly)	p	[165]
		<i>Gonioctena tredecimmaculata</i> (Jacoby)	p	[201]
		<i>Gonioctena tredecimmaculata</i> (Jacoby)	oo	[178]
	Crioceridae	<i>Sagra femorata purpurea</i> Lichtenstein	oo	[75]
			po	[164]
Curculionidae	<i>Alcidodes trifidus</i> (Pascoe)	p	[75]	
Hemiptera	Coreidae	<i>Fracastorius cornutus</i> Distant	m	[208]
		<i>Homoeocerus dilatatus</i> Horváth	p	[207]
		<i>Homoeocerus marginellus</i> Herrich-Schäffer	p	[207]
		<i>Homoeocerus unipunctatus</i> (Thunberg)	p	[207]
	Lygaeidae	<i>Chauliops fallax</i> Scott	p	[207]
		<i>Malcus elongatus</i> Stys	m	[208]
		<i>Malcus inconspicuus</i> Stål	p	[207]
<i>Tropidothorax cruciger</i> (Motschulsky)	p	[208]		

Order	Family	Species	H. R.	Ref.
	Pentatomidae	<i>Cantheconidea humeralis</i> (Distant)	p	[208]
		<i>Cyclopelta obscura</i> (Lepelletier & Serville)	p	[207]
		<i>Cyclopelta parva</i> Distant	p	[207]
		<i>Diplorhinus furcatus</i> (Westwood)	p	[208]
		<i>Megarrhamphus truncatus</i> (Westwood)	p	[207]
		<i>Stollia guttiger</i> (Thunberg)	p	[207]
	Plataspidae	<i>Aponsila montana</i> (Distant)	m	[208]
		<i>Brachyplatys punctipes</i> Montandon	m	[208]
		<i>Coptosoma intermedia</i> Yang	p	[208]
			p	[75]
		<i>Coptosoma notabilis</i> Montandon	p	[207]
			p	[75]
		<i>Megacopta cribraria</i> (Fabricius)	p	[207]
		<i>Megacopta distanti</i> (Montandon)	p	[208]
		<i>Megacopta horvathi</i> (Montandon)	p	[75]
	<i>Paracopta duodecimpunctatum</i> (Germar)	p	[207]	
	<i>Paracopta rufiscuta</i> Hsiao et Jen	p	[208]	
	Lepidoptera	Crambidae	<i>Lamprosema diemenalis</i> (Guenée)	p
<i>Maruca testulalis</i> Geyer			p	[169]
		p	[166]	
Drepanidae		<i>Callidrepana argenteola</i> (Moore)	p	[178]I
Lycaenidae		<i>Catochrysops panormus</i> (Felder)	po	[219]
		<i>Celastrina albocaerulea</i> Moore	p	[178]
		<i>Celastrina argiola</i> (L.)	p	[219]
		<i>Celastrina argiolus</i> (L.)	p	[178]
		<i>Curetis acuta</i> Moore	p	[219]
		<i>Jamides bochus formosanus</i> (Fruhstorfer)	p	[219]
<i>Lampides boeticus</i> (L.)		p	[219]	
Noctuidae		<i>Mocis ancilla</i> (Warren)	oo	[75]
Notodontidae		<i>Phalera cossioides</i> Walker	oo	[4]II
Nymphalidae		<i>Neptis hylas luculenta</i> Fruhstorfer	p	[219]
		<i>Neptis nata adipala</i> Moore	p	[178]
		<i>Neptis nata lutatia</i> Fruhstorfer	p	[219]
		<i>Neptis soma</i> Moore	p	[219]
Sphingidae		<i>Acosmeryx miskini</i> (Murray)	p	[225]
			p	[227]
			p	[166]
		<i>Acosmeryx naga</i> (Moore)	p	[225]
			p	[75]
			p	[178]
		<i>Clanis bilineata</i> (Walker)	po	[225]
			po	[178]
			po	[75]
<i>Clanis bilibeata tsingtauica</i> Mell		po	[225]	

^IProbably the synonym of *Callidrepana patrana* (Moore)

^{II}Recorded as *Phalera procera* (Felder)