

# *Spiraea japonica*

## Japanese spiraea

### Introduction

The genus *Spiraea* is comprised of approximately 100 species occurring in the mountainous areas of temperate and subtropical regions of the Northern hemisphere. At least 70 species have been recorded in China<sup>[139]</sup>.

### Taxonomy

- Order:** Rosales  
**Suborder:** Rosineae  
**Family:** Rosaceae  
**Subfamily:** Spiraeoideae  
**Genus:** *Spiraea* L.  
**Section:** Calospira K. Koch  
**Series:** Japonicae Yü  
**Species:** *Spiraea japonica* L. f.

### Description

*Spiraea japonica* is an upright shrub that can grow to 1.5 m in height. The slender branchlets are subcylindrical, glabrous and pubescent when young, giving a spreading appearance. Leaf blade, incised bidentate or dentate margined, is ovate to ovoid elliptic, 2-8 cm long and 1 to 3 cm broad, with an abrupt to shortly acuminate apex and a cuneate base. The upper surface is dark green, glabrous or puberulous along the veins, the underside is lighter in color or glaucous and pubescent along the veins. The petiole, about 1-3 mm long, is also pubescent. In June through July, pubescent flowers, about 4-7 mm in diameter, bloom densely in the erect, compound corymb arising from the apex of the annual shoot. Bracts are



lanceolate to linear lanceolate and puberulous on the underside. Calyx is campanulate, pubescent inside and sparsely so outside. The pubescent sepals are triangular with an abrupt apex. The petals, much shorter than stamens and pink in color, are ovate to orbicular, and obtuse apically, with a length of 2.5-3.5 mm and a width of 2-3 mm. <sup>[139, 199]</sup>.

### Habitat and Distribution

Native to Japan and Korea, *S. japonicaca* is cultivated nationwide throughout China as an ornamental <sup>[139]</sup>.

### Related Species

*S. japonica* is highly variable. There are eight varieties reported in China<sup>[139, 199]</sup>.

- 1) *S. japonica* L. f. var. *acuta* Yü occurs in mixed forests and grassy slopes in western Yunnan province at elevations of 2500-2700 m.
- 2) *S. japonica* L. f. var. *acuminata* Franch. occurs in sparsely or densely mixed forests, ravines, riversides and grassy slopes at elevations of 950-4000 m, in Anhui, Gansu, Guangxi, Guizhou, Henan, Hubei, Hunan, Jiangxi, Shaanxi, Yunnan and Zhejiang provinces.

3) *S. japonica* L. f. var. *incisa* Yü occurs in prairie thickets at elevations of 3200-4000 m, in Sichuan and Yunnan provinces.

4) *S. japonica* L. f. var. *ovalifolia* Franch. occurs on rocky slopes, forest edges or ravines at elevations of 2500-3800 m, in Sichuan and Yunnan provinces.

5) *S. japonica* L. f. var. *fortunei* (Planchon) Rehd. occurs hilly slopes, croplands, or mixed forests at elevations of 700-3000 m, in Anhui, Guizhou, Hubei, Jiangsu, Jiangxi, Shaanxi, Shandong, Sichuan, Yunnan, and Zhejiang provinces.

6) *S. japonica* L. f. var. *glabra* (Regel) Koidz. occurs on rocky land, forests, or forest edges at elevations of 1600-1900m, in Anhui, Sichuan, Yunnan and Zhejiang provinces.

7) *S. japonica* var. *pinnatifida* T. T. Yu & L. T. Lu occurs on slopes in mixed forests; at elevations of about 2900 m in Xizang province.

### Natural Enemies of *Spiraea*

Seven fungal species and twenty-seven arthropods have been recorded from members of the genus *Spiraea*. Few natural enemies are recorded for *S. japonica*.



## Species of *Spiraea* in China

Scientific Name	Scientific Name
<i>S. alpina</i> Pall.	<i>S. miyabei</i> Koidz.
<i>S. anomala</i> Bata.*	<i>S. mollifolia</i> Rehd.
<i>S. aquilegifolia</i> Pallas	<i>S. mongolica</i> Maxim.
<i>S. arcuata</i> Hook.	<i>S. morrisonicola</i> Hayata
<i>S. bella</i> Sims	<i>S. muliensis</i> T. T. Yu & L. T. Lu*
<i>S. blumei</i>	<i>S. myrtilloides</i> Rehd.
<i>S. calcicola</i> W. W. Smith	<i>S. ningshiaensis</i> T. T. Yu & L. T. Lu*
<i>S. canescens</i> D. Don	<i>S. nishimurae</i> Kitag.
<i>S. cantoniensis</i> Lour.	<i>S. ovalis</i> Rehd.
<i>S. cavaleriei</i> H. Lév.*	<i>S. papillosa</i> Rehd.
<i>S. chamaedryfolia</i> L.	<i>S. prostrata</i> Maxim.
<i>S. chinensis</i> Maxim.	<i>S. prunifolia</i> Sieb. & Zucc.
<i>S. compsophylla</i> Hand.-Mazz.	<i>S. pubescens</i> Turcz.
<i>S. dahurica</i> Maxim.	<i>S. purpurea</i> Hand.-Mazz.
<i>S. daochengensis</i> L. T. Lu*	<i>S. rosthornii</i> Pritz.
<i>S. dasyantha</i> Bge.	<i>S. salicifolia</i> L.
<i>S. elegans</i> Pojark.	<i>S. sargentiana</i> Rehd.
<i>S. flexuosa</i> Fisch. ex Cambess.	<i>S. schneideriana</i> Rehd.
<i>S. formosana</i> Hayata	<i>S. schochiana</i> Rehd.
<i>S. fritschiana</i> Schneid.	<i>S. sericea</i> Turcz.
<i>S. hailarensis</i> Liou	<i>S. siccanea</i> (W. W. Smith) Rehd.
<i>S. hayatana</i> H. L. Li*	<i>S. sublobata</i> Hand.-Mazz.
<i>S. henryi</i> Hemsl.	<i>S. tarokoensis</i> Hayata
<i>S. hingshanensis</i> T. T. Yu & L. T. Lu*	<i>S. teniana</i>
<i>S. hirsuta</i> (Hemsl.) Schneid.	<i>S. teretiuscula</i> C. K. Schneider*
<i>S. hypericifolia</i> L.	<i>S. thunbergii</i> Sieb. ex Blume
<b><i>S. japonica</i> L. f.</b>	<i>S. trichocarpa</i> Nakai
<i>S. kwangsiensis</i> Yü	<i>S. trilobata</i> L.
<i>S. kweichowensis</i> T. T. Yu & L. T. Lu*	<i>S. uratensis</i> Franch.
<i>S. laeta</i> Rehd.	<i>S. vanhouttei</i> (Briot) Zabel
<i>S. lichiangensis</i> W. W. Smith	<i>S. veitchii</i> Hemsl.
<i>S. lobulata</i> T. T. Yu & L. T. Lu*	<i>S. velutina</i> Franch.
<i>S. longigemmis</i> Maxim.	<i>S. wilsonii</i> Duthie
<i>S. martinii</i> Lév.	<i>S. Tibetensis</i> L. T. Lu*
<i>S. media</i> Schmidt	<i>S. yunnanensis</i> Franch.

\* Not listed in FRPS<sup>[199]</sup>

## Fungi

Phylum	Family	Species	H. R.	Ref
Ascomycota	Erysiphaceae	<i>Podosphaera clandestina</i> var. <i>clandestina</i> (Wallr.) Lév.	oo	[24]
			o	[24]I
			po	[26]II
Anamorphic <i>Botryosphaeria</i>		<i>Diplodia spiraeae</i> Thüm.	mo	[26]

Phylum	Family	Species	H. R.	Ref
Anamorphic	<i>Leptosphaeria</i>	<i>Coniothyrium spiraeae</i> Miyake	mo	[26]
Anamorphic	<i>Mycosphaerella</i>	<i>Cercospora spiraeae</i> Thüm.	m	[26]
		<i>Cladosporium herbarum</i> (Pers.) Link	po	[210]
		<i>Cladosporium nodulosum</i> Corda	mo	[26]
			mo	[210]
		<i>Pseudocercospora spiraeicola</i> (A.S. Mull. & Chupp) X.J. Liu & Y.L. Guo	po	[129]

<sup>†</sup>Recorded as *Podosphaera minor* Hacke

<sup>‡</sup>Recorded as *Podosphora oxyacanthae* (DC.) de Bary

## Arthropods

Order	Family	Species	H. R.	Ref.	
Acariformes	Eriophyidae	<i>Eptrimerus spiraeae</i> Kuang	mo	[90]	
Coleoptera	Cerambycidae	<i>Xylotrechus robusticollis</i> (Pic)	po	[150]	
	Chrysomelidae	<i>Stenoluperus flavipes</i> Chen	po	[165]	
Hemiptera	Acanthosomatidae	<i>Elasmucha dorsalis</i> (Jakovlev)	po	[208]	
	Pentatomidae	<i>Sepontia variolosa</i> (Walker)	mo	[207]	
po			[75]		
Homoptera	Aphididae	<i>Aphis citricola</i> van der Goot	p	[205]	
	Psyllidae	<i>Cyamophila</i> sp.	po	[165]	
			m	[160]	
Lepidoptera	Gelechiidae	<i>Compsolechia metagramma</i> Meyrick	mo	[78]	
	Hesperiidae	<i>Pyrgus darwazicus</i> Kauffmann	mo	[25]	
	Lycaenidae	<i>Acytolepis puspa myla</i> (Fruhstorfer)	po	[219]	
	Noctuidae	<i>Orthosia gracilis</i> (Denis & Schiffermüller)	po	[15]	
	Nymphalidae		<i>Brenthis ino</i> (Rottemburg)	po	[219]
			<i>Limenitis sydyi</i> Lederer	oo	[178]
			<i>Neptis pryeri</i> Butler	oo	[178]
			<i>Neptis pryeri jucundita</i> Fruhstorfer	oo	[219]
	Saturniidae	<i>Neoris haraldi</i> Schawerda	po	[226]	
	Tortricidae		<i>Acleris latifasciana</i> (Haworth)	po	[133]
				po	[78]
			<i>Acleris shepherdana</i> (Stephens)	po	[133]
			<i>Clepsis pallidana</i> (Fabricius)	po	[133]
			<i>Epinotia contrariana</i> (Christoph)	po	[133]
			<i>Olethreutes siderana</i> (Treitschke)	po	[133]
<i>Pandemis dumetana</i> Treitschke			po	[78]	
			po	[166]	
	<i>Pandemis heparana</i> (Denis & Schiffermüller)	po	[133]		

Order	Family	Species	H. R.	Ref.
Thysanoptera	Aeolothripidae	<i>Aeolothrips melaleucus</i> (Haliday)	po	[66]
	Phlaeothripidae	<i>Haplothrips chinensis</i> Priesner	po	[75]
			po	[165]
	Thripidae	<i>Frankliniella intonsa</i> (Trybom)	po	[66]
<i>Thrips flavidulus</i> Bagnall		po	[66]	

\*Recorded as *Clepsis (Siclobola) strigana* (Hübner)