

# *Buddleja davidii*

## Butterfly bush

### Introduction

The genus *Buddleja* includes 100 species occurring from tropical to temperate regions of the Americas, Africa and Asia<sup>[86]</sup>. Twenty-nine species and 4 varieties occur in most provinces of China except Xinjiang and those of northeastern China.



### Species of *Buddleja* in China

Scientific Name	Scientific Name
<i>B. adenantha</i> Diels	<i>B. hastata</i> Prain ex Marq. †
<i>B. alata</i> Rehd. & Wilson†	<i>B. heliophila</i> W. W. Smith†
<i>B. albiflora</i> Hemsl.	<i>B. limitallea</i> W. W. Smith†
<i>B. alternifolia</i> Maxim. †	<i>B. lindleyana</i> Fortune
<i>B. asiatica</i> Lour.	<i>B. macrostachya</i> Wall. ex Benth.
<i>B. brachystachya</i> Diels	<i>B. madagascariensis</i> Lamk.
<i>B. candida</i> Dunn	<i>B. myriantha</i> Diels
<i>B. caryopteridifolia</i> W. W. Smith†	<i>B. nivea</i> Duthie
<i>B. colvilei</i> Hook.f. & Thoms.	<i>B. officinalis</i> Maxim.
<i>B. crispa</i> Benth.	<i>B. paniculata</i> Wall.
<i>B. curviflora</i> Hook. & Arn.	<i>B. purdomii</i> W. W. Smith†
<b><i>B. davidii</i></b> Franch.	<i>B. taliensis</i> W. W. Smith†
<i>B. delavayi</i> Gagnep.	<i>B. wardii</i> Marq. †
<i>B. fallowiana</i> Balf. f. & W.W. Smith	<i>B. yunnanensis</i> Gagnep. †
<i>B. forrestii</i> Diels	

Leaves and flowers of *Buddleja davidii*. (Photo by Richard A. Casagrande, University of Rhode Island.)

becoming glabrous, with 9-14 lateral veins. Ovate or semicircular, and occasionally caducous, two stipules may be present between the leafstalks, which are 1-5 mm long. Flowering from May to October, the inflorescence occurs terminally as a raceme or in a panicle-like cyme arrangement, 4-30 cm long and 2-5 mm wide. The calyx is bell-shaped and 2-3 mm long. Each lobe is membranous and triangular. The fragrant corollas are 7.5-14 mm long, light violet, then yellowish white to white, with an orange-yellow throat and suborbicular lobes. The fruit is a capsule, which is narrowly ellipsoid to narrowly ovoid, 5–9 mm long and 1.5–2 mm wide, appearing from September to December. Seeds are ellipsoid, 2–4 mm in length and about

† Not included or accepted as hybrid in revised *Flora of China*<sup>[88]</sup>

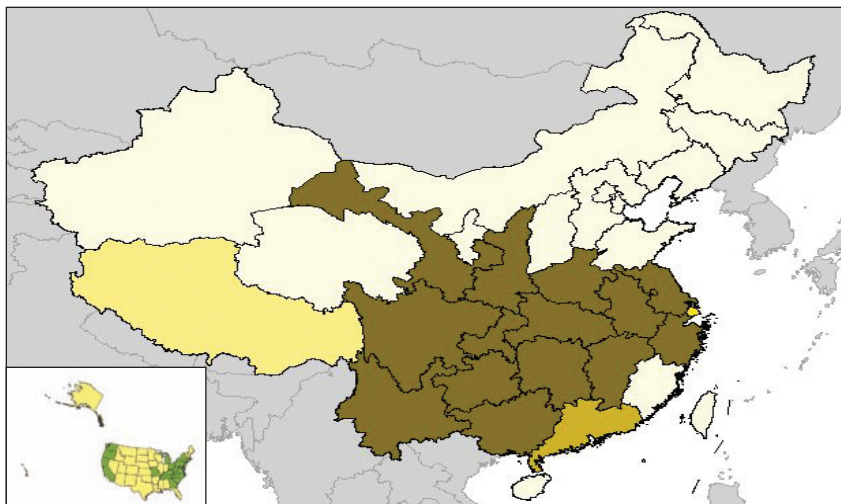
### Taxonomy

**Family:** Loganiaceae

**Genus:** *Buddleja* L.

### Description

*B. davidii* is a shrub 1-5 m in height. The branches are somewhat drooping. Most parts of the plant are covered with white stellate hairs. Opposite leaves are membranous or thin papery, narrowly ovate, narrowly elliptic to ovate-lance shaped, 1-20 cm long and 0.3-7.5 cm wide, with serrate margin, acuminate apex, and base obtuse to broadly cuneate. The upper leaf surface is hair-covered



0.5 mm in diameter, with long wings at both ends<sup>[88][86]</sup>.

### Habitat

*B. davidii* occurs in thickets on hillsides and trenches, at elevations of 800-3,000 m<sup>[86]</sup>.

### Distribution

*B. davidii* occurs in Anhui, Gansu, Guizhou, Henan, Hubei, Hunan, Jiangsu,

Jiangxi, Shaanxi, Sichuan, Yunnan, Zhejiang, and possibly Guangdong<sup>[26][31][50][88][86][156][162]</sup>.

### Economic Importance

The entire plant is used medicinally. Fragrant essential oils can be extracted from the flower. It is also grown as an ornamental plant for its graceful flowers and down-swept twigs<sup>[86]</sup>.

### Natural Enemies of *Buddleja*

Three fungi and thirteen arthropods are reported for *Buddleja* species. One fungal species, *Pseudocercospora buddleiae*, is reported to infect *B. davidii*.

## Fungi

Phylum	Family	Species	H. R.	Ref.
Ascomycota	Meliolaceae	<i>Irenina buddlejae</i> Hansf.	oo	23
Anamorphic <i>Mycosphaerella</i>		<i>Pseudocercospora buddleiae</i> (W. Yamam.) Goh & W.H. Hsieh	oo	23 <sup>†</sup>
			o	110
		<i>Septoria merrillii</i> Syd.	mo	23

<sup>†</sup>Recorded as *Cercospora buddlejae* Yamam

## Arthropods

Order	Family	Species	H. R.	Ref.
Coleoptera	Chrysomelidae	<i>Hemipyxis lusca</i> (Fabricius)	po	185
		<i>Hemipyxis plagioderoides</i> (Motschulsky)	po	65
			po	158
		<i>Hemipyxis tonkinensis</i> (Chen)	po	185
		<i>Hespera bipilosa</i> Chen et Wang	oo	140
		<i>Hespera univestis</i> Chen et Wang	oo	140
		<i>Stenoluperus nipponensis</i> (Laboissiere)	p	65
			po	140
			po	158
		<i>Trachyaphthona bidentata</i> Chen et Wang	oo	140
			oo	185
		<i>Trachyaphthona buddlejae</i> Wang	po	185
<i>Trachyaphthona cyanea</i> (Chen)	oo	140		
	po	185		
<i>Trachyaphthona fulva</i> Wang	oo	140		
Homoptera	Pseudococcidae	<i>Pedronia planococcoides</i> Borchsenius	po	150
		<i>Planococcus sinensis</i> Borchsenius	po	150
Thysanoptera	Thripidae	<i>Dendrothrips stannardi</i> (Ananthakrishnan)	po	56