

Commelina communis Asiatic dayflower

Introduction

The genus *Commelina* has approximately 100 species worldwide, distributed primarily in tropical and temperate regions. Eight species occur in China^{[60][167]}.

Species of *Commelina* in China

Scientific Name	Scientific Name
<i>C. auriculata</i> Bl.	<i>C. maculata</i> Edgew.
<i>C. bengalensis</i> L.	<i>C. paludosa</i> Bl.
<i>C. communis</i> L.	<i>C. suffruticosa</i> Bl.
<i>C. diffusa</i> Burm. f.	<i>C. undulata</i> R. Br.

Taxonomy

Family: Commelinaceae

Genus: *Commelina* L.

Description

Commelina communis is an annual herb with numerous branched, creeping stems, which are minutely pubescent distally, 1 m long. Leaves are lanceolate to ovate-lanceolate, 3–9 cm long and 1.5–2 cm wide. Involucral bracts grow opposite the leaves. Bracts are 1.2–2.5 cm long, folded and cordate when unfolded, with 1.5–4 cm long



Flower of *Commelina communis*. (Photo provided by LBJWC, Albert, F. W. Frick, Jr.)

stalk, often hirsute-ciliate marginally, and acute apically. Cyme inflorescence has one flower near the top, with dark blue petals and membranous sepals 5 mm long. Capsules are elliptic, 5–7 mm, and two-valved. The two seeds in each valve are brown-yellow, 2–3 mm long, irregularly pitted, flat-sided, and truncate at one end^{[60][167]}.

Habitat

C. communis prefers moist, shady forest edges. It is common in wet areas of crop fields, orchards, ditches, and

roadsides^[60].

Distribution

C. communis is widely distributed in China,^[60] but no records are reported for its distribution in Qinghai, Xinjiang, Hainan, and Tibet^{[6][116][167]}.

Economic Importance

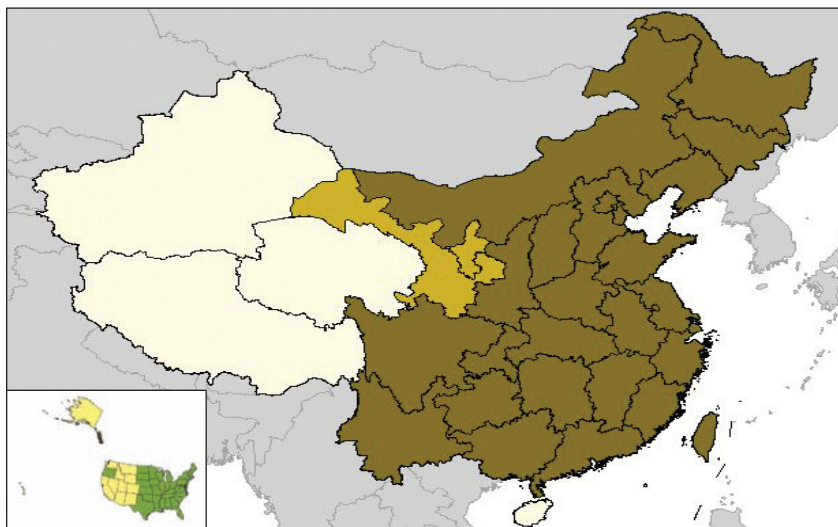
Commelina communis has caused serious damage in the orchards of northeastern China^[96]. *C. communis* is used in Chinese herbal medicine.^[60]

Related Species

C. diffusa occurs in forests, thickets and moist areas of southern China and can be distinguished from *C. communis* by its lanceolate bracts and acuminate apex^[60].

Natural Enemies of *Commelina*

Ten fungi have been found on members of the genus *Commelina*, four of which can infect Asiatic dayflower. *Kordyana commelinae* and *Phyllosticta commelinicola* are recorded to be host specific to *C. communis*. There are 12 arthropod species contained in four orders and six families that are associated with *C. communis*.



Fungi

Phylum	Family	Species	H. R.	Ref.
Ascomycota	Hyponectriaceae	<i>Physalospora commelinae</i> Sawada	mo	23
	Sclerotiniaceae	<i>Sclerotinia sclerotiorum</i> (Lib.) de Bary	po	23
Basidiomycota	Atheliaceae	<i>Athelia rolfsii</i> (Curzi) C.C. Tu & Kimbr.	po	23 [†]
	Brachybasidiaceae	<i>Kordyana commelinae</i> Sawada	m	23
	Ceratobasidiaceae	<i>Thanatephorus cucumeris</i> (A.B. Frank) Donk	po	23 [‡]
	Phakopsoraceae	<i>Phakopsora tecta</i> H.S. Jacks. & Holw.	oo	23
	Pucciniaceae	<i>Puccinia adhikarii</i> Ono	po	149
		<i>Uromyces commelinae</i> Cooke	p	23
	Ustilaginaceae	<i>Ustilago commelinae</i> (Kom.) Zundel	mo	23
m			54	
Anamorphic <i>Guignardia</i>		<i>Phyllosticta commelinicola</i> E. Young	m	195

[†] Recorded as *Corticium centrifugum* (Lév.) Bres.

[‡] Recorded as *Corticium sasakii* (Shirai) Matsum.

Arthropods

Order	Family	Species	H. R.	Ref.
Coleoptera	Crioceridae	<i>Lema chujoi</i> Gressitt et Kimoto	mo	65
			mo	139
		<i>Lema concinnipennis</i> Baly	p	65
			p	139
		<i>Lema coromandeliana</i> (Fabricius)	mo	139
		<i>Lema coronata</i> Baly	p	65
			p	139
		<i>Lema delicatula</i> Baly	m	65
			m	139
		<i>Lema diversa</i> Baly	p	65
	p		139	
<i>Lema scutellaris</i> (Kraatz)	m	139		
	Eumolpidae	<i>Acrothinium gaschkevitschii</i> (Motschulsky)	p	139
	Hispidae	<i>Cassida piperata</i> Hope	po	140
Hemiptera	Pentatomidae	<i>Aeschrocoris ceylonicus</i> Distant	m	65
Homoptera	Aphididae	<i>Aphis commelinae</i> Shinji	m	65
			m	100
Lepidoptera	Sphingidae	<i>Rhyncholaba acteus</i> (Cramer)	po	206
			p	208