

## *Convolvulus arvensis*

### Field bindweed

#### Introduction

The genus *Convolvulus*, with approximately 250 members worldwide, is distributed in temperate and subtropical regions of both hemispheres. Eight species have been reported in China<sup>[173]</sup>.

#### Species of *Convolvulus* in China



*Convolvulus arvensis* leaves and flowers. (Photo provided by LBJWC, Lyn & Campbell Loughmiller.)

Scientific Name	Scientific Name
<i>C. ammannii</i> Desr.	<i>C. lineatus</i> Linn.
<i>C. arvensis</i> Linn.	<i>C. pseudocantabrica</i> Schrenk
<i>C. fruticosus</i> Pall.	<i>C. steppicoala</i> Hand.Mazz.
<i>C. gortschakovii</i> Schrenk	<i>C. tragacanthoides</i> Turcz.

#### Taxonomy

**Family:** Convolvulaceae

**Genus:** *Convolvulus* L.

#### Description

*Convolvulus arvensis* is a perennial with rhizomes and glabrous procumbent or twining stems that are slightly ridged with vertical grooves on the surface. The leaf is ovate-oblong to lanceolate, 1.5-5 cm long and 1-3 cm wide, with an acute or mucronate apex and a hastate, sagittate or cordate base.

The leaf margin is entire or divided into three lobes, with lateral ones spreading and the middle one ovoid elliptic, narrowly triangular, lanceolate, oblong or suborbicular. Palmate veins begin at the base of leaf and become pinnate for the remainder of the leaf. The axillary cyme is composed of one to three flowers, the pedicel is significantly longer than the calyx, with hairy sepals being 2.5-5 mm long. The two outer sepals are oblong to elliptic, hairy margined, and shorter than inner sepals, which are suborbicular and

somewhat lobed with a membranous margin. The broad funnel-shaped corolla is 15-26 mm long, five-lobed, white or pink, and occasionally has a pinkish or whitish midpetaline band or bands. The flowers appear from June to August. Fruits that appear from June to September are ovoid global or conical capsules, about 5-8 mm in length, containing four dark brown or black, subovate seeds<sup>[173][166]</sup>.

#### Habitat

*Convolvulus arvensis* can be found in disturbed areas, roadsides, and grassy slopes at elevations of 600 to 4,500 m<sup>[173][166]</sup>.

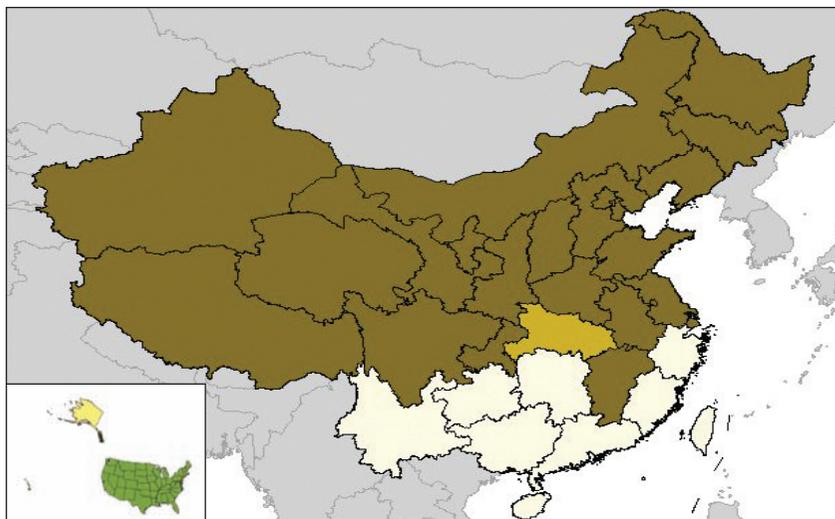
#### Distribution

*Convolvulus arvensis* is widely distributed throughout China, including the provinces of Anhui, Gansu, Hebei, Heilongjiang, Henan, Jiangsu, Jiangxi, Jilin, Liaoning, Inner Mongolia, Ningxia, Qinghai, Shaanxi, Shandong, Shanxi, Sichuan, Xinjiang, Tibet, and probably Hubei<sup>[84][166][173]</sup>.

#### Economic Importance

Field bindweed is one of the most common weeds found in orchards, gardens, and crop fields of wheat, cotton, soybeans, and vegetables. Recently, it has caused serious damage in northern and northwestern China<sup>[96]</sup>. Field bindweed is used medically.

#### Natural Enemies of



## Fungi

Phylum	Family	Species	H. R.	Ref.
Ascomycota	Erysiphaceae	<i>Erysiphe convolvuli</i> DC.	p	22 <sup>†</sup>
		<i>Erysiphe convolvuli</i> var. <i>dichotoma</i> R.Y. Zheng & G.Q. Chen	p	22
		<i>Erysiphe betae</i> (Vaňha) Weltzien	p	23
Basidiomycota	Glomosporiaceae	<i>Thecaphora seminis-convolvuli</i> (Duby) Liro	m	54
	Pucciniaceae	<i>Puccinia convolvuli</i> (Pers.) Castagne	po	23
		<i>Uromyces gemmatus</i> Berk. & M.A. Curtis	po	23
Oomycota	Albuginaceae	<i>Albugo ipomoeae-panduratae</i> (Schwein.) Swingle	po	188
Anamorphic <i>Pyrenopeziza</i>		<i>Cylindrosporium convolvuli</i> Miura	mo	23

<sup>†</sup> Recorded as *Erysiphe polygoni* DC.

## Arthropods

Order	Family	Species	H. R.	Ref.
Acariformes	Eriophyidae	<i>Aculops lycopersici</i> (Masee)	p	83
Coleoptera	Hispidae	<i>Aspidomorpha indica</i> Boheman	po	65
			po	140
		<i>Taiwania circumdata</i> (Herbst)	po	65
			po	140
Homoptera	Coccidae	<i>Ceroplastes floridensis</i> Comstock	po	151
Lepidoptera	Arctiidae	<i>Lemyra maculifascia</i> (Walker)	po	40 <sup>‡</sup>
			po	41
	Noctuidae	<i>Emalaena sulphuralis</i> (Scopoli)	p	13
		<i>Trichoclea albicolon</i> (Sepp)	po	12
	Sphingidae	<i>Herse convolvuli</i> (Linnaeus)	po	206
	Tortricidae	<i>Clepsis rurinana</i> (Linnaeus)	po	65
<i>Clepsis semialbana</i> (Guenée)		po	113	

<sup>‡</sup> Recorded as *Paralacydes maculifascia* (Walker)