

Tribulus terrestris

Puncture vine

Introduction

The genus *Tribulus* contains 20 species worldwide, primarily occurring in tropical and subtropical regions. In China, only 2 species have been recorded^[132].

Species of *Tribulus* in China

Scientific Name
<i>T. terrestris</i> L.*
<i>T. cistoides</i> L.

*Recorded as *T. terrester* L. in *FRPS*

Taxonomy

Order: Geraniales

Suborder: Geraniineae

Family: Zygophyllaceae

Genus: *Tribulus* L.

Species: *Tribulus terrestris* L.
(=*Tribulus terrester* L.)

Description

Tribulus terrestris is an herbaceous annual, with glabrous, villous or hirsute, procumbent stems that are 20-60 cm in length. Leaves are parapinnately compound 1.5-5 cm long with 3-8 pairs of opposite leaflets for each. Each leaf is oblong or asymmetrical, 5-10 mm long and 2-5 mm wide, acute or obtuse apically, slightly asymmetrical basally, and an entire margin. Axillary yellow flowers have a pedicel shorter than the leaf. Both petals and persistent calyxes are 5-numbered. Ten stamens occur at the base of the floral disc which also bears scale-like glands. The ovary has 5 ridges, and a 5-lobed stigma, with 3-4 ovules in each loculus. Flowers appear from May through August,



and fruit July through September. Fruits are stiff, glabrous or hairy, 4-6 mm long, with 2 spines in the middle of fruit margin. The fruits is a 5 part mericarp^[132].

Habitat

Tribulus terrestris occurs in sandy areas, waste land, hillside slopes, as well as residential areas^[132].

Distribution

Tribulus terrestris has a nationwide distribution in China^[132].

Economic Importance

Tribulus terrestris can be used as forage while green. Fruits are medically useful. It is a common pest plant in the pasture^[132] and causes damage to cotton, pulse, root and tuber crops and other crops and vegetables^[39].

Related Species

Tribulus cistoides has a pedicel nearly equal to the leaf in length and a larger flower with a diameter of about 3 cm, whereas *T. terrestris* is 1 cm in diameter. *T. cistoides* occurs along coastal beaches

and sparse forests in Hainan, and the hot, dry valleys in Yunnan^[132].

Natural Enemies of *Tribulus*

One species of fungi and one arthropod have been found to be associated with *Tribulus terrestris*.



Fungi

Phylum	Family	Species	H. R.	Ref.
Oomycota	Peronosporaceae	<i>Peronospora tribulina</i> Pass.	m	[202]

Arthropods

Order	Family	Species	H. R.	Ref.
Acariformes	Tetranychidae	<i>Tetranychus truncatus</i> Ehara	p	[106]