

Arthraxon hispidus Jointhead grass

Introduction

Approximately 20 species of *Arthraxon* occur in the tropics and subtropics of the eastern hemisphere. Ten species and six varieties have been reported from China [82].

Species of *Arthraxon* in China

[4]

Scientific Name	Scientific Name
<i>A. castratus</i> (Gtiff.) Narayan. ex Bor	<i>A. maopingensis</i> S. L. Chen et Y. X. Jin
<i>A. guizhouensis</i> S. L. Chen et Y. X. Jin	<i>A. micans</i> (Nees) Hochst.
<i>A. hispidus</i> (Thunb.) Makino	<i>A. microphyllus</i> (Trin.) Hochst.
<i>A. lanceolatus</i> (Roxb.) Hochst.	<i>A. multinervus</i> S.L.Chen et Y. X. Jin
<i>A. lancifolius</i> (Trin.) Hochst.	<i>A. xinanensis</i> S. L. Chen et Y. X. Jin



Arthraxon hispidus (Photo USDA-PD.)

Taxonomy

Family: Gramineae (Poaceae)

Genus: *Arthraxon* Beauv.

Description

Jointhead grass is an annual grass that reaches a height of 30-60 cm with a semi-decumbent growth habit. The slender culm (stem) is glabrous, branched, and has many nodes. Leaf sheath is shorter than internode and covered with wart-like

granules. Ligule is membranous, 0.5-1 mm long, and margined by fine hairs. Leaves are ovate-lanceolate, 2-4 cm in length and 0.8-1.5 cm in width, cordate base encircling the stem. Racemes are slender, 1.5-4 cm long, clustered or digitate on the top of culm. The sessile spikelets are ovate-lanceolate, 3-5 mm long, grayish green or somewhat violet, with a basally twisted awn that is 6-9 mm long while the petiolate spikelets are degenerated and pin-like. Fruits

are oblong caryopsis. Flowers and fruits appear in September through November [82].

Habitat

Jointhead grass occurs in moist areas of grasslands, hillsides, and along streams, flourishing in warm regions nationwide. It prefers to grow in mountain regions. It is also a common weed plant of orchards, tea fields, and roadsides [82][96][205].

Distribution

Although it is generally thought to occur nationwide [82], *Arthraxon hispidus* is not found in the floras of Hainan [6] Inner Mongolia [121], Qinghai [108], or Tibet [163].

Economic Importance

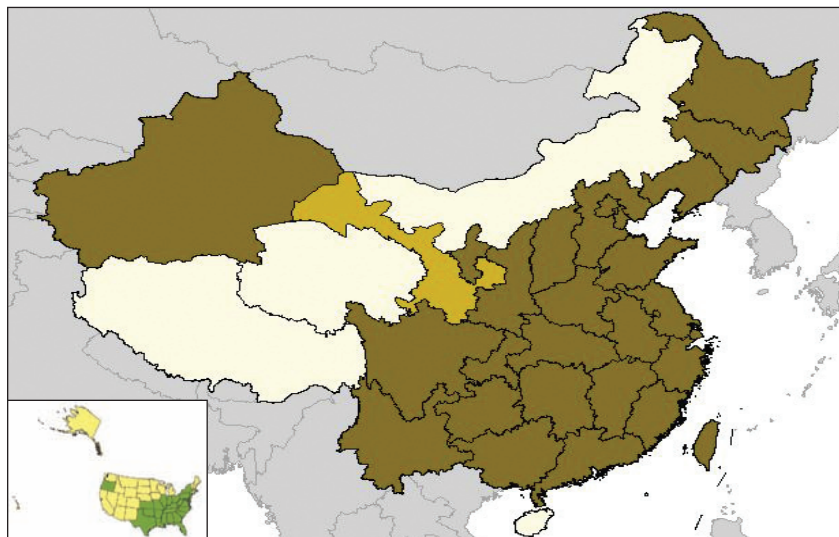
Jointhead grass is a common pasture plant and it is also medically useful for relieving sore throat [96][205].

Related Species

There are two varieties of *A. hispidus*. *Arthraxon hispidus* (Thunb.) Makino var. *centrasiaticus* (Grisb.) Honda, bearing a hairy two-awned spikelet, occurs in Northeast, Northwest, East, and Central China. *Arthraxon hispidus* var. *cryptatherus* (Hack.) Honda, has insignificant awns half the spikelet in length, and occurs in East, South, Southwest, and Central China [82].

Natural Enemies of *Arthraxon*

Nine species of fungi have been found in association with species of *Arthraxon*, among them, one species (*Bremia graminicola* Naumov) is likely host specific to jointhead grass. Seven other species also have a narrow host range. Eleven insect species are reported to attack *Arthraxon* spp. but all are polyphagous.



Fungi

Phylum	Family	Species	H. R.	Ref.
Ascomycota	Phyllachoraceae	<i>Phyllachora arthraxonis</i> Henn.	o	23 [†]
Basidiomycota	Ceratobasidiaceae	<i>Thanatephorus cucumeris</i> (A.B. Frank) Donk	po	23 [‡]
	Pucciniaceae	<i>Puccinia aestivalis</i> Dietel	mo	23
			p	149
		<i>Puccinia arthraxonis</i> (Henn.) Syd., P. Syd. & E.J. Butler	o	23
			o	149
		<i>Puccinia arthraxonis-ciliaris</i> Cummins	o	23
	<i>Puccinia benguetensis</i> Syd.	o	149	
Ustilaginaceae	<i>Sporisorium arthraxone</i> (Patouillard) L. Guo	oo	54	
Oomycota	Albuginaceae	<i>Albugo ipomoeae-panduratae</i> (Schwein.) Swingle	p	23
	Peronosporaceae	<i>Bremia graminicola</i> Naumov	m	23
o			188	

[†] Recorded as *Phyllachora arthraxonis-hispidi* Saw

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

Arthropods

Order	Family	Species	H. R.	Ref.
Coleoptera	Chrysomelidae	<i>Sphaeroderma apicale</i> Baly	po	185
Lepidoptera	Noctuidae	<i>Agrotis ipsilon</i> (Hufnagel)	p	205 ⁱ
		<i>Agrotis tokionis</i> Butler	p	205
		<i>Anomis flava</i> (Fabricius)	p	205
		<i>Euxoa segetum</i> (Schiffermüller)	p	205
		<i>Heliothis armigera</i> (Hübner)	p	205
		<i>Heliothis assulta</i> Guenée	p	205
		<i>Mamestra brassicae</i> (Linnaeus)	p	205 ⁱⁱ
		<i>Prodenia litura</i> (Fabricius)	p	205
		<i>Pyrrhia umbra</i> (Hufnagel)	p	205
<i>Xylena formosa</i> (Butler)	p	205		

ⁱ Recorded as *Agrotis ypsilon* (Rottemberg)

ⁱⁱ Recorded as *Barathra brassicae* (Linnaeus)