

Taxonomical study of *Chrysopogon aciculatus* (Retz.) Trin., a significant grass of Chauparan, Hazaribag (Jharkhand)

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ABSTRACT

Chrysopogon aciculatus (Retzius) Trinius is a grass belonging to the family Poaceae/Gramineae. It is very common grass of Chauparan. (see photograph) It's English name is 'Golden false beardgrass' or 'Love grass' while it's vernacular name is 'Chorant'. This is a tropical weed and is very good soil binder.

Key words: grass, weed, chorant, soil binder.

INTRODUCTION

Chrysopogon aciculatus (Retz.) Trin., Fund. Agrost. 188. 1820; Haines, Bot. Bihar & Orissa pt. 5: 1035. 1924; Bor, Grass. Burm. Ceyl. Ind. Pak. 115. 1960; Parham in Smith, Fl. Vitiensis Nova 1: 378. 1979; SreeKumar & Nair, Fl. Kerala Grasses 59. 1991; Singh et al., Fl. Bihar 602. 2001; Paria & Chattopadhyay, Fl. Hazaribagh District 2: 1049. 2005; Kabir & Nair, Fl. Tamil Nadu Grasses 380. 2009. *Andropogon aciculatus* Retz. Obs. Bot. 5: 22. 1788; Hook. f., Fl. Brit. India 7: 118. 1896; Prain, Bengal Pl. 2: 1205. 1903 (Rep. ed. 2: 907. 1963).

C. aciculatus (Retz.) Trin. is a perennial grass with a creeping rhizome (Paria and Chattopadhyay, 2005). It's culm is divided into creeping base and erect portion. (see illustration) The creeping base is covered with imbricate scale like old sheaths. Sheaths are long, striate, sometimes purple-tinged and imbricate (Singh et al., 2001). Leaf-blades are flat. Panicles are reddish purple, narrowly elliptic and long. Chorant is usually found in sunny, dry, exposed areas such as roadsides, lawns, pasture, bank of rivers, water courses, etc (Noltie, 2000). It is a common weed found almost throughout the year but mainly during July to October.

MATERIALS AND METHODS

The research was done at Chauparan. The place was visited fortnightly and the specimens of

Chrysopogon aciculatus (Retz.) Trin. were collected. These are treated with 10% formalin there and the bundles were kept in tight polythene bags. After coming from the site all these specimens were spread out in loose papers then pressed them among blotting papers. Blotting papers were changed every day for 6-10 days so that it soaks water and moisture. Now, it is ready to poison but since these are treated with formalin so there's no need to poison. Now these are mounted on mounting sheets (28x42 cm) and identify them with the help of flora of the region concerned and later confirmed it at Botanical Survey of India, Howrah.

RESULTS AND DISCUSSION

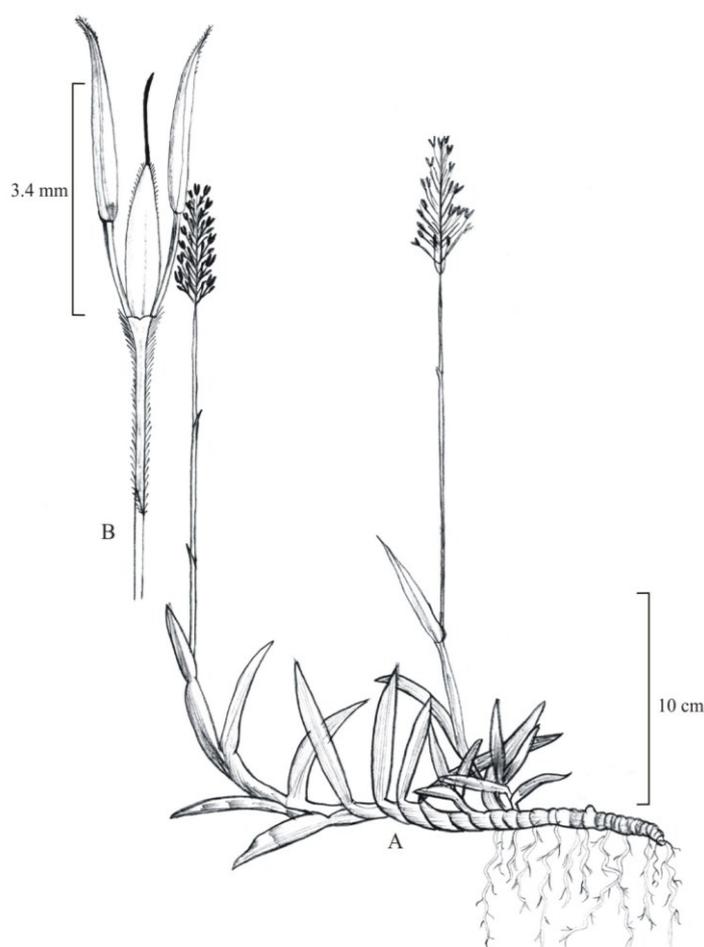
In the study of Specimens, *Chrysopogon aciculatus* (Retz.) Trin. was found to be perennial grass (Roy, 1984). It's rhizome is creeping, culm base is also creeping, erect portion of culm upto 48.5 cm high. Leaf – blades is 1.8-12.1 x 0.25-0.5 cm, flat. Panicle is found to be up to 7.5 cm long, long-peduncled, erect (Sarma and Sarkar, 2002); branches 4-5 nate, fragile, spreading, hairy, scabrid, thickened at the top, articulating obliquely with the bisexual spikelet on only one joint, the same carries the bisexual and sessile and 2 male or neuter pedicelled spikelets, articulation not appendaged (Haines, 1924).

Sessile spikelets linear, 2.4-3.4 x 1.2 - 1.4 mm. Lower glumes 2.9-3.1 x 1.1-1.3 mm, obscurely 2-3 nerved, 2-keeled, linear-subulate involute at base, broadly implicate, towards the top. Upper glume glabrous, keeled, lanceolate, acuminate (Singh et al., 2001). Lemma of the lower floret oblong-lanceolate, obtuse or acute retrorsely ciliate; of upper floret with up to 6.2 mm long awn. Palea small, glabrous; pedicel slender. Glumes: lower 5-6 x 0.8-1 mm, dorsally convex, Keels ciliate at the tip. Upper glumes 4.8-5.1x1.2-1.4 mm, margin retrorsely ciliate. Lower floret barren; lemma 4.1-4.3 x 0.6 mm, palea small, cuspidate. Upper floret male; lemma 2.8-3.1 x 0.7-0.9 mm, margin retrorsely ciliate; palea up to 1.7 x 0.7 mm (Sreekumar and Nair, 1991).

The grass has a potential to spread quickly as the creeping rhizomes grow over open areas. Cattle eat this species in default of anything else. It can tolerate grazing, mowing and trampling by animals (Kabir and Nair, 2009). It is a very good soil binder and so prevents soil erosion. This can be difficult to eradicate if it becomes established. The spikelets are easily disarticulating, acicular and the callus is extremely sharp and often gets attached to the skin and hairs of animals and cloths of human beings. That's why it is known as 'Love grass'.

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Photograph of *Chrysopogon aciculatus* (Retz.) Trin.

Fig. *Chrysopogon aciculatus* (Retz.) Trin.

- A. Whole plant showing its creeping habit, majority of leaves at the base and erect flowering culms.
B. The triad of spikelets; note the sharp callus lying against the peduncle.

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