



TAXONOMICAL STUDY OF *DIGITARIA CILIARIS* (RETZ.) KOELER, A SUMMER GRASS OF JHARKHAND

Science

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ABSTRACT

Digitaria ciliaris (Retz.) Koeler is a common summer grass found in Chouparan of Hazaribag District. It belongs to the family Poaceae. The grass is a good soil binder and so controls soil erosion during summer. It is found to be grown in sandy area very nicely in patches.

KEYWORDS

summer grass, soil binder, soil erosion, sandy, patches.

INTRODUCTION

Digitaria ciliaris (Retz.) Koeler, Descr. Gram. Gallia & Germania 27. 1802; Parham in Smith, Fl. Vitiensis Nova 1: 326. 1979; Cope in Nasir & Ali, Fl. Pakistan 143: 228. 1982; SreeKumar & Nair, Fl. Kerala Grasses 237. 1991; Singh et al., Fl. Bihar 611. 2001; Paria & Chattopadhyay, Fl. Hazaribagh District 2: 1066. 2005; Kabir & Nair, Fl. Tamil Nadu Grasses 242. 2009. *Panicum ciliare* Retz. Obs. Bot. 4: 16. 1786. *Panicum adscendens* Kunth in H.B.K., Nova Gen. Sp. 1: 97. 1816. *Digitaria sanguinalis* (L.) Scop. fa. *ciliaris* (Retz.) Haines, Bot. Bihar & Orissa pt. 5: 1008. 1924. *Digitaria adscendens* (Kunth) Henrard in Blumea 1: 92. 1934; Bor in Webbia 11: 350. 1955 & Grasses Burma Ceyl. Ind. Pak. 298. 1960.

D. ciliaris (Retz.) Koeler is a very common summer grass found in Chouparan Block of Hazaribag District falls under Jharkhand state of India (Singh *et al* 2001). It is an annual grass belonging to the family Poaceae. Culms are slender whereas roots are developed at the lower nodes. In this plant leaves are linear with sparsely hairy sheaths. Inflorescence is a panicle of racemes arranged digitately. Spikelets are binately arranged. Here, pedicels are unequal and triquetrous.

MATERIALS AND METHODS

The research has been carried out in Chouparan Block of Hazaribag District. The area was visited fortnightly and the specimens of *Digitaria ciliaris* (Retz.) Koeler were collected. These are treated with 10% formalin there and their bundles were made. The bundles were kept in tight polythene bags. After coming from the research area, all these specimens were spreaded out in loose papers, then pressed them among blotting papers. Blotting papers were changed every day for about 10 days so that it soaks water and moisture. Now the next step is poison but since these are treated with formalin so there is no need to poison. Further these are mounted on mounting sheets of 28x42 cm and were identified with the help of flora of the concerned region and online Herbarium catalogue of Royal Botanical Garden, Kew. Finally the specimens were confirmed at Botanical Survey of India, Howrah.

RESULTS AND DISCUSSION

During taxonomical study, *D. ciliaris* (Retz.) Koeler is found to be an annual grass of about 25-60 cm high (Paria and Chattopadhyay 2005). Culms are slender; roots are arisen at the lower nodes. Leaves are 5 to 18 x 0.4 to 0.8 cm, linear, hairy from tubercle-bases, acuminate; sheaths sparsely hairy; ligule 1.4 to 2.5 mm long and membranous. Inflorescence is a panicle of 3-10 racemes, 4.5 to 9 cm long; racemes are arranged in digitate or subwhorled manner. Spikelets are binately arranged, 2.5 to 3.5 mm long, elliptic to lanceolate (Haines 1924), acute; pedicels are unequal and triquetrous. Gl. I is a small triangular, nerveless scale and densely villous. Gl. II is 2 to 3 mm long, lanceolate, 3-nerved and acute. Lower lemma is found empty (Singh *et al* 2001) and 5-7-nerved; upper hermaphrodite (SreeKumar and Nair 1991), coriaceous, oblong-lanceolate, 3-nerved. Here, stamens are 3 (Sarma and Sarkar 2002). Caryopsis 1.5 to 1.8 mm long (Roy 1984).

Ecology: Common in pastures, hedges and under the shade of the thickets and Kitchen garden; gregariously grown.

Fl. & Fr.: April to October.

Distribution: Warmer parts of the world.

Uses: It is an excellent fodder grass.



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