

On the occurrence of *Jansenella neglecta* Yadhav et al. and *Polypogon nilgiricus* Kabeer & V.J. Nair (Poaceae) from the Nilgiris, Tamil Nadu

V. S. Ramachandran*, T. Betty

Taxonomic and Floristic Laboratory, Department of Botany, Bharathiar University,
Coimbatore, Tamil Nadu, India

*E-mail address: vsrbotany@gmail.com

ABSTRACT

The present paper reports *Jansenella neglecta* Yadhav et al., for the first time to the State of Tamil Nadu and the occurrence of endemic species, *Polypogon nilgiricus* Kabeer & V.J. Nair from outside the type locality.

Keywords: Poaceae; *Jansenella*; *Polypogon*; neo-endemic; Nilgiris; Tamil Nadu

1. INTRODUCTION

The Department of Botany has carried out research work in the endemic plants of the Nilgiris in connection with UGC major Research Project and it resulted in the collection of two endemic grasses *Polypogon nilgiricus* Kabeer (2008) and *Jansenella neglecta* Yadhav et al. (2010). It is found that the above two species are not included in the previous work published by the earlier botanists like Sharma et.al. (1977) and Henry et.al. (1989). It is reported in this paper that *Jansenella neglecta* Yadhav et al. as a new record for Tamilnadu and showing an extended distribution towards south in the Western Ghats from Northern Western Ghats of Maharastra. Similarly, *Polypogon nilgiricus* Kabeer & V.J.Nair, an endemic species collected from outside the type locality. The voucher specimens are deposited in the Herbarium of Department of Botany, Bharathiar University (BU), Coimbatore for future reference. The genus *Jansenella* Bor is represented by two species in the world and two species in India [1,3,5-7]. In the State of Tamilnadu, the genus is represented by only one species i.e., *J. griffthiana* (C. Mueller) Bor [4,6].

2. PLANT DESCRIPTION

2. 1. *Jansenella neglecta* Yadhav et al., in Rheedeae, 20(1) (2010) 38-43.

Tufted annuals. Culms erect or creeping, 3-25 cm high; terate, nodes glabrous, lower nodes rooting. Leaf blade elliptic or lanceolate, 3-5.5×0.5-0.7 cm long, acuminate at apex,

cordate or amplexicaul at base with tubercle based hairs. Ligule arch shaped. Panicle 1.5-4.5 cm long, capitate, compact. Peduncles 8-14 cm long, more or less ribbed, hairy towards apex. Spikelets ovate-lanceolate, 5-8×1-2 mm long. Lower glume ovate - lanceolate, 3.5-4×1 mm, acuminate, chartaceous, hairy, 3-nerved. Upper glume oblong lanceolate, 5-8×1-1.3 mm, caudate, acuminate, aristate at apex, 3-5 nerved. Lower floret male, female, bisexual or barren. Lower lemma oblong to lanceolate, 4-5×1-2 mm, acuminate, 5 nerved. Palea oblong, 2-2.2×0.5-0.6 mm, hairy, delicate, hyaline. Upper floret bisexual. Upper lemma oblong lanceolate, 3.8-4×0.8-1.2 mm, notched membranous, 3 awned at apex. Palea linear oblong, 1.8-2.6×0.4-0.6 mm, notched, bifid at apex, hairy on dorsal side. Stamens 3; anthers 0.5-1 mm, yellow. Pistil 1.2-1.4 mm long; style tubular, bifid, 0.5-1 mm long; stigma plumose, 0.5-1 mm long. Fruit caryopsis, 1.2×0.3-0.4 mm, obovate, acute to obtuse at apex, greenish brown, hilum basal.

Fl. & Fr. : Oct-Dec

Distribution : Western Ghats

Ecology : Dripping rocks

Specimen examined : Tamil Nadu, Nilgiris: Naduvattum, 1940 m, 14 November 2012, V.S. Ramachandran, 5401 (BU).

Notes : Reported for the first time from the state of Tamil Nadu.

2. 2. *Polypogon nilgiricus* Kabeer & V.J. Nair, *Nord. J. Bot.* 25 (2008) 9; Kabeer & V.J. Nair, *Grass Fl. Tamil Nadu* 86 (2009).

Tufted perennial; culms decumbent, upto 50 cm high. Leaf blade linear-lanceolate, 5-30×0.6-1 cm, acuminate at apex, rounded to truncate at base, flat, scabrellate dorsally and along margins; ligule lanceolate, 0.8-1.4 cm long, acute at apex, lacerate at maturity, membranous, glabrous; leaf sheath terete, margins hyaline, glabrous. Inflorescence a panicle, 6-13×2-6 cm; peduncle terete, 10-30 cm long, glabrous; rachis more or less ribbed scabrellate. Racemes many, 1.5-3.5 cm long, usually whorled, at times lower ones with secondary branches, ascending and congested when young, spreading at maturity. Spikelets solitary, pedicelled, oblong, 1.8-2×ca 0.8 mm, laterally compressed, deciduous along with the pedicels; pedicels terete, 0.6-0.8 mm long, scabrid throughout. Glumes similar, exceeding floret; divergent when mature. Lower glume oblong, 1.8-2×ca.0.4 mm, acute to emarginate with awn at apex, greenish, prominently 1-nerved, 1-keeled, scabrous dorsally and on keel, the margins hispidulous; awn 2-3 mm long, straight to curved, barbellate. Upper glume similar to the lower one. Floret 1, bisexual, usually up to half of glumes; floret callus glabrous. Lemma oblong, ca 1-0.3 mm, acute to 4-fid with excurrent nerves at apices, membranous, smooth, faintly 5-nerved, margins incurved; awn from sinus, 1.2-1.4 mm long, barbellate. Palea as long as the lemma, membranous, hyaline, faintly 2-nerved, at times 2-keeled. Lodicules 2, lanceolate, 0.2-0.3 mm long, membranous, hyaline. Stamens 3; anthers ca 0.2 mm long, yellowish; filaments hyaline. Ovary obovate, ca 0.3 mm long, yellowish; style short; stigma plumose, whitish to yellowish.

Fl. & Fr.: Jan. – Mar.

Distribution: Nilgiris (Localized endemics)

Ecology: Common in the water logged localities.

Specimen examined: Tamil Nadu, Nilgiris: Avalanche, 2250 m, 28 February 2012, V.S. Ramachandran, 2310 (BU).

Notes: This endemic grass was described by Kabeer & Nair (*l.c.*) from Manjacombai, it has also been recorded in Kotagiri, Upper Bhavani, Doddabetta, Ooty – Kotagiri main road Nilgiris in the year 2008. While working on the endemic plants of Nilgiris the authors could not locate this grass from Avalanche indicates its wider range distribution within Nilgiris and reveals that it is one of the common elements wild occurrence in aquatic situations at upper Nilgiris.

4. CONCLUSION

It is found that the above two species are not included in the previous work published by the earlier botanists like Sharma et.al., (1977) and Henry et.al., (1989). It is reported in this paper that *Jansenella neglecta* Yadhav et al. as a new record for Tamil Nadu and showing an extended distribution towards south in the Western Ghats from Northern Western Ghats of Maharashtra. Similarly, *Polypogon nilgiricus* Kabeer & V.J. Nair, an endemic species collected from outside the type locality.

References

- [1] N.L. Bor. Grasses of Burma, Ceylon, India and Pakistan. Pergamon Press, Oxford, London. (1960).
- [2] A.N. Henry, Chithra V., Balakrishnan N.P. Flora of Tamil Nadu, India, Series-I, Analysis. Vol. 3. Botanical Survey of India, Southern Circle, Coimbatore. (1989).
- [3] K.A.A. Kabeer, Nair V.J. Flora of Tamil Nadu – Grasses. Botanical Survey of India, (2009).
- [4] J.D. Mabberley, Mabberley's Plant-Book: A portable dictionary of plants, their classification and uses. Cambridge University Press, Cambridge (2008) 560.
- [5] S. Mani, *Polypogon nilgiricus* In: IUCN Red List of Threatened Species. Version 2012.2. www.iucnredlist.org. (2011).
- [6] B.D. Sharma, Shetty B.V., Vajravelu E., Kumari G.R., Vivekananthan K., Chandrabose M., Swaminathan M.S., Chandrasekaran R., Subba Rao G.V., Ellis J.L., Rathakrishnan N.C., Karthikeyan, S. Chandrasekaran V., Srinivasan S.R. *Biol. Mem.* 2(1,2) (1977).
- [7] S.R. Yadhav, Chivalkar, S.A., Gosavi K.V.C. On the identity of *Jansenella griffithiana* (Poaceae) with a new species from Western Ghats, *India Rheedeana* 20(1) (2010) 38-43.

(Received 26 November 2014; accepted 14 December 2014)