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Research Article

A NEW RECORD OF DISTRIBUTION OF ENDEMIC AND THREATENED RATTAN (*PLECTOCOMIA KHASYANA* GRIFF., ARECACEAE) IN MIZORAM, INDIA

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ABSTRACT

Rattan (Cane) species in the Northeastern region in India are facing threat of existence. Some of the species reported earlier from certain localities are not recorded in the recent studies. In extensive survey in protected areas of Mizoram, an interesting rattan was collected from Zongaw Reserved Forest, identified as *Plectocomia khasyana,* an endemic and threatened rattan and first reported from Mizoram. The rattan was recorded along with other tree species (*Castanopsis indica, Mangifera sylvatica, Mesua ferrea, Quercus lineata, Q. semiserrata* etc) at 23˚50´20.9″ latitude and 92˚29´06.4″ longitude and at an elevation of 1035 m above sea level.

INTRODUCTION

Rattan (Cane) is one of the most important Non-Timber Forest Products in the northeast India. The Northeastern region (NER) comprising the states i.e. Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura is one of the rich rattan growing regions in India. In the region is represented by 22 species and 2 varieties so far reported 60 species belonging to 5 genera *i.e. Calamus, Daemonorops, Karthalsia, Plectocomia, and Salacca* (Haridasan *et al*, 2002) in India. The species of the genus *Plectocomia* is only represented in the Northeast India with 4 different species (Beecari & Hook. f., 1894, Haridasan *et al*, 2002). Canes of the region are in great concern as many of the species facing threat of existence. Some of the species reported earlier from certain localities are not recorded in the recent studies (Renuka, 1996).

Mizoram is one of the forests rich states in the Northeast India, which lies between 21˚ 58´ and 24˚35´ N latitudes and 92˚ 15´ and 93˚29´ E longitudes. A good number of rattan resources were found 15-20 years before in the state, but in present the resource is facing threats of existence. Slash and burn agriculture, over and unscientific harvesting, lack of measures for conservation and management are underlined as major causes of depletion of rattan resources in the state. The rattan resources of the state is least known, hence an investigation was carried out to explore the rattan resources in perspective to conserve and sustainable management.

MATERIALS AND METHODS

Preliminary information on rattan rich forests was collected from the Department of Forest, Environment and Climate change, Mizoram. Based on the information, an extensive field survey was conducted in Dampa Tiger Reserve and Zongaw Reserved forest during 2015-16. A good number rattan species were collected and properly identified with consulting literatures (Griffith, 1850; Beecari & Hook. f., 1894; Blatter, 1926; Basu, 1992). Photographs of different parts i.e. leaf sheath, petiole, rachis, leaflets, cirrus etc were taken and considered for identification and collected the Vern name and use from the community.

RESULTS

Species description

Plectocomia khasyana Griff., Calc. J.. Nat. Hist. 5: 106, 1844; & Palms Brit. Ind.106, t.218, 1850; Becc. in Hook. f., Fl. Brit. Ind., 6: 478, 1894.

Vern name: Mawt (Mizo).

Stem 22±5 m in length, stem diameter 4-5 cm, with sheath 8-10 cm; sheath spine are yellowish green, 1-1.5 cm in length, arranged in half circle- spiral ring; leaves more than 7 m with cirrus; leaflet distantly regular alternate, 18-35 cm long, 5-8 cm broad, lanceolate, clearly 3- ribbed, finely furfuraceous beneath, tip not filifious; no knee, petiole with digitate spines

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with 0.5±1 cm to 0.8 ± 1 cm (middle) in length; rachis terete with digitate spines beneath of 0.5±1 cm in length (Plate-1).

Male spadix branched from the base, branches 100 cm long, spathels with 40-45 cm oblong, white, broad, green, acute, or acuminate tips and a broad interposed band. Spikelets 2.2-2.5 cm and many flowered.

Habit and habitat: It is a single stem and climbing rattan; grown in nearby water stream in moist forest of Tropical wet evergreen and semi-evergreen forests (Singh & Singh, 2002).

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Plate-1

1. A stem of *Plectocomia khasyana*, 2 Spines arrangement in leaf sheath, 3. Arrangement and shape of leaflets, 4. Colour of lower side of leaflets, 5. Shape of knee and spine arrangement, 6. Digitate spines in lower side of petiole

DISCUSSION

Griffith (1844) had explored the species from Khasi Hills (now Meghalaya). It was first time explored from Zongaw Reserved Forest under Mamit Forest Division, Mizoram. The rattan was recorded along with other tree species (*Castanopsis indica, Mangifera sylvatica, Mesua ferrea, Quercus lineata, Q. semiserrata* etc) at 23˚50′20.9″ latitude and 92˚29′06.4″ longitude and at an elevation of 1035 m above sea level. It is an endemic and threatened rattan (Basu, 1985) and infrequent to rare in distribution in natural habitats in the Northeastern region in India (Basu, 1992). The cane is used for basket, containers etc; also for tying in Mizoram (Sawmliana, 2013).

CONCLUSION

A few individuals of the species was recorded in the Zongaw Reserved Forest, Mamit district along with tree species i.e. *Castanopsis indica, Mangifera sylvatica, Mesua ferrea, Quercus lineata, Q. semiserrata* etc which provide shade and support to the species. A few wildings were collected from the ground and effort had been made to conserve the species in campus of Advanced Research Centre for Bamboo and Rattan, Bethlehem Vengthlang, Aizawl, Mizoram.

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