



***ARECA TRIANDRA* ROXB. *EX* BUCH.-HAM. (ARECACEAE): NEW RECORD FOR WEST BENGAL, INDIA**

Sujit Mondal, Rajib Biswas, S. K. Basu¹ and Monoranjan Chowdhury*

*Taxonomy of Angiosperms & Biosystematics Lab., Department of Botany, University of North Bengal, Raja Rammohunpur, Darjeeling-734013 (West Bengal) India

¹The Agri Horticultural Society of India, Kolkata-700027 (WB) India

Abstract

Areca triandra Roxb. *ex* Buch.-Ham. is very similar to *Areca catechu* in sterile stage except sucker formation and it first time recorded from the boundary of West Bengal and also recorded from Eastern India after 65 years.

Key words: *Areca triandra* Roxb. *ex* Buch.-Ham., New report, West Bengal, Eastern India.

Introduction

The genus *Areca* L. (Arecaceae) is represented by 45 species particularly in India (Andaman island, Assam), Bangladesh, Cambodia, China, Malaysia, Thailand, Philippines and Myanmar and the species of *Areca* are generally growing near small streams, enjoying the high humidity and concentrated at sub-tropical to tropical forested areas. In India, it is represented by 7 Species distributed throughout the country, among the 7 species 3 species are wild and semi wild and 4 species are cultivated as ornamental or economic palms (Basu and Chakravorty 1994). North Bengal plains, hills and foothills of terai and duars are part of Himalayan Biodiversity Hotspots with various in-situ conservatories and tea gardens with diversity of biological entities and ethnic communities (Chowdhury, 2009, 2012, Chowdhury & Das, 2007, Chowdhury *et al.*, 2015, Chowdhury *et al.* 2016a, 2016b). During the floristic survey (2009-2013) in duars areas of North Bengal an interesting *Areca* seedling was collected from the forested village of Gorumara National Park of Jalpaiguri district and local peoples ensured the plant as *Areca catechu*. The seedling was brought to the Centre of Conservation and Utilization of Medicinal and Aromatic Plants (*ex-situ* conservatory), University of North Bengal and growing successfully. On 2017, when plant was in first full bloom, then it was comfily identified as *Areca triandra* after investigating flowering and fruiting characters. The *Areca triandra* was previously reported

from Andaman and Nicobar islands, and also from Assam, Meghalaya, and Nagaland of North-eastern part of mainland of India (Hooker *f.*, 1894; Basu and Chakravorty, 1994; Kulkarni & Mulani, 2004; Mondal *et al.*, 2017a & 2017b). During herbarium consultation only one specimen of *Areca triandra* (Acc. 495175) is deposited in CNH, Howrah, but lack of any basic information, it was not help much. Two Indian herbarium specimens (Accession No. 24454 & 34697) of ASSAM herbarium (Shillong) collected by Rolla S. Rao in 1957 and Dr. D.B. Deb in 1963 respectively were examined. No any specimens were found to be collected from any place of Nagaland and Meghalaya in famous herbaria.

This study focus on new distributional record of *Areca triandra* Roxb. *ex* Buch-Ham. from the boundary of West Bengal and also rediscovery from East and North East India after 65 years. *Areca triandra* Roxb. *ex* Buch-Ham. is quite a rare in occurrence and confusing with *A. catechu*. Presently only one healthy tree is growing in the Centre of Conservation and Utilization of Medicinal and Aromatic Plants (*ex-situ* conservatory), University of North Bengal and two plants were also recorded at the forest area at Sukhna range of Mahananda wildlife sanctuary, Darjeeling.

Areca triandra Roxb. *ex* Buch-Ham. Mem. Wern. Soc. 5:310. 1826 and Fl. Ind. 3: 617. 1832. Becc. in Hook. *f.* Fl. Brit. Ind. 6: 405. 1892; Karthikeyan *et al.*, Fl. Ind. Enu. Monocot. 16. 1989; Basu and Chakraverty, Manu. Culti. Palms Ind. 127. 1994; Kulkarni and Mulani, Current

***Author for correspondence** : E-mail : mono_malda@yahoo.co.in

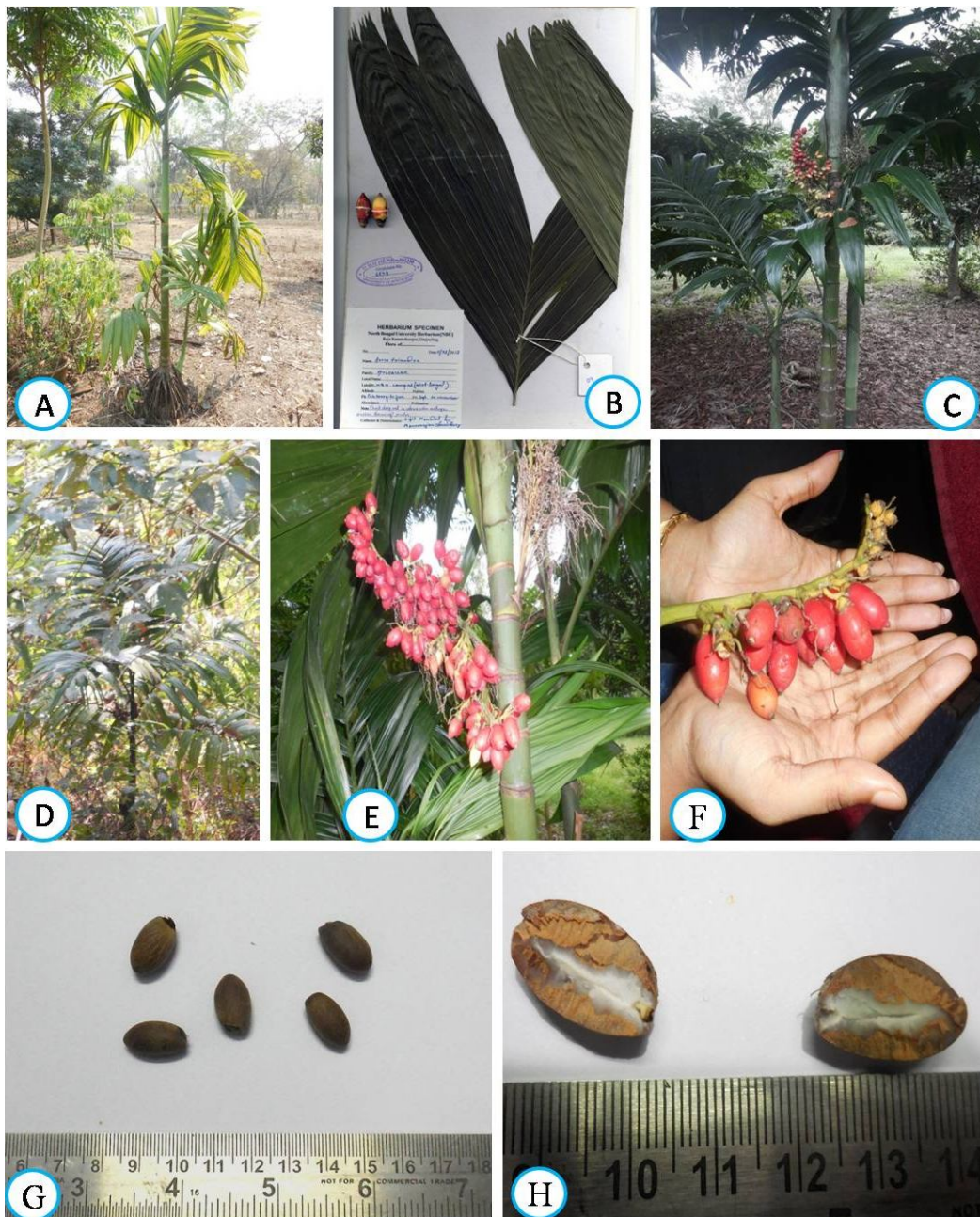


Fig. 1: *Areca triandra* Roxb. ex Buch.-Ham. (A) Sterile plant (B) Herbarium specimen (C) Fertile plant (D) Wild habit (E) Mature fruit (g) Mature seeds (H) Section of seed with cotyledons

Sci. 86 (12). 1602. 2004. [fig. 1]

A sucker forming dwarf to bushy palm; stems slender, erect to slightly bent, to 3 m long, 3-3.5 cm in diameter near base; crown shaft slightly ventricose in adult plants to development of spadix inside of leaf sheath. Leaves pinnate, arching, light green, 3 m long; leaflets or leaf segments sub opposite, alternate, linear ensiform, acuminate, broad at base, prominently nerved on upper side; terminal leaflets broad, deeply partite, each lobe truncate with bidentate margins. Inflorescence infrafoliar, 40 cm long when unopened; prophyll pale green, leathery,

bicarinate, caduceus; flower branches pale yellow to whitish when opened; peduncle short, compressed, with 1-3 orders of flower branches; ultimate flower branches (rachillae) filiform; *Male flowers* in pairs, minute, numerous, creamy white, odorous at anthesis, highly caduceus; sepals 3, minute, ovate, unequal; petals 3, oblong, obtuse, valvate; stamens 3, opposite to petals, filaments short, connate at base; pistillode rudimentary; *Female flowers* many times larger than the males, proximal; sepals 3, deep green, more or less circular in

outline, imbricate; petals imbricate or rarely twisted; staminodes 6, conspicuous; ovary one loculed, one ovuled, stigma with unequal lobes. Fruits ellipsoid – bullet shaped deep red when ripe.

Flowering and Fruiting: February–June; September–November.

Distribution: SE Asia; India (Andaman & Nicobar Island, Assam, Meghalaya, Nagaland).

Uses: This species is a potential ornamental plant can be grown in the gardens. Nuts are sometimes chewed like areca nut by the local people.

Specimen Examined: S. Coll. M.H. Assam, Acc. No. 52640 (MH); Rolla S. Rao, 24454, Chachar, Assam, 01.09.1957; D.B. Deb, 34697, Bokajan, Assam, 21.06.1963; Wright myo, South Andamans, 13.01.1959, Thothathri 9064 (MH); Habdaypur, S. Andamans, 9.4.1892, Kings Acc. No. 72642 (MH); S. Mondal & M. Chowdhury 11.03.2017 NBU Herbarium (Acc. No. 6504).

Conclusion

As the *Areca triandra* Roxb. ex Buch-Ham. was previously recorded by various author from India and presently its existence in wild is quite rare. This species is only conserved in some selected *ex-site* conservatories. As the nut is also edible this plant should be propagated from seeds and planted in forested areas for further research.

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