Bangladesh J. Plant Taxon. **27**(2): 435-438, 2020 (December) - **Short communication**

STATUS OF OCCURRENCE OF *LIVISTONA JENKINSIANA* GRIFF. IN BANGLADESH

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Khadimnagar National Park is one of the reserved secondary forests, located in northern side of Sylhet Sadar Upazila, Bangladesh. Arare, fan-shaped palm species, locally called *Aanor* or *Chatipata* has primarily been located in the park. The plants have yetto bear any flowers and fruits. Leaf specimens were collected and studied in plant taxonomy laboratory. The sterile specimens were identified as *Livistona jenkinsiana* Griff. based on external morphological characters. Further exploration is necessary in Bangladesh to find its population status and distribution record of *Livistona jenkisiana* Griff.

When exploring Khadimnagar national park of Sylhet forest division in 2015 to find out the plant species of conservation worthiness the authors were encountered with a number of palms in the stream sides at the beginning of two hours trail near the forest beat office. The area is deep forest with no disturbance from humanity dominated by a good number of tree species particularly Chapalish (*Artocarpus chama* Buch.-Ham. *ex* Wall.), Champa (*Michelia champaca* L.), Agar (*Aquilaria agallocha* Roxb.), Shegun (*Techtona grandis* L. f.), Zybans (*Bambusa vulgaris* Schrad. *ex* Wendl.), bushy vegetations, climbers and annual herbaceous plants. Wildlife population including hanuman was encountered during the visit. Among the palm plants, one palm was identified as *Pinanga gracilis* which was listed earlier as red plant in our country but other one palm with fan-shaped leaves locally called *Aanor* or *Chatipata* could not be identified in the field. The authors observed carefully its vegetative growth form and took a number of images from different angles and also collected plant specimens for further study using traditional taxonomic techniques (Hyland 1972; Alexiades 1996). The specimens later were brought to plant taxonomy laboratory, Department of Botany, University of Dhaka where this was thoroughly examined and studied for all morphological properties. The unknown palm species was identified as *Livistona jenkinsiana* Griffith by matching of its properties with the properties given in the Flora of China (Wu *et al.*, 2007) and Major Jenkin's palm in Thailand (Barfod *et al.*, 2010). Identification was confirmed by discussing with Professor Anders Sanchez Barfod, Department of Biological Sciences, Aarhus University, Denmark and also authenticated by comparing with Google known images of *LivistonaJenkinsiana*Griff. The species has primarily been reported as rare species recorded from Bangladesh which belongs to the family Arecaceae.

Earlier the species was reported by William Griffith in 1845 from Assam and he mentioned the species may occur in Bangladesh. Very recently Barfod *et al.* (2010) also mentioned that the species may occur in Bangladesh territory. After W. Griffith a good number of works were done on the flora of Bangladesh including Hooker (1892), Prain (1903), Rahman and Hassan (1995), Uddin *et al.* (1998), Uddin and Rahman (1999), Khan and Huq (2001), Uddin *et al.* (2002), Uddin *et al.* (2005), Rafiqul *et al.* (2009), Tutul *et al.* (2009), Uddin and Hassan (2010), Arefin *et al.* (2010), Khondker *et al.* (2010) and Uddin *et al.* (2011, 2013). But no researchers reported this rare species from Bangladesh territory. Therefore this rare species has primarily been recognized in

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2015 and now reported scientifically as a rare species from Bangladesh. The status of occurrence of this rare species was confirmed with the consultation of the database of Dhaka University Salar Khan herbarium, Bangladesh National Herbarium, Chittagong University Herbarium, Jahangirnagar Uinversity Herbarium and Rajshahi University Herbarium.

Based on the field observation record and detailed studies in the plant Taxonomy Laboratory, a short description of the species is given below:

Livistona jenkinsiana Griff. Calcutta J. NatHist. **5**: 334. 1845.

A tall, fan-shaped, singly growing palm, height up to 10 meter but at maturity it may reach more than 10 meter. Leaves palmate, long up to 480 cm, petiole 340 cm tall, blade or lamina size across 250 cm, split after two-third distance from the base of lamina, segment number 80 to 94, erect at the apices, lamina externally rounded, grayish green abaxially, green adaxially, petiole 30 cm thick, 61 cm width, Petiole with two types spines along margins, decreasing in density toward distal end, arranged alternately with long 30 cm tall, after short, 10 cm tall, recurved, tip pointed, both are brown in colour (Fig. 1. A-F).

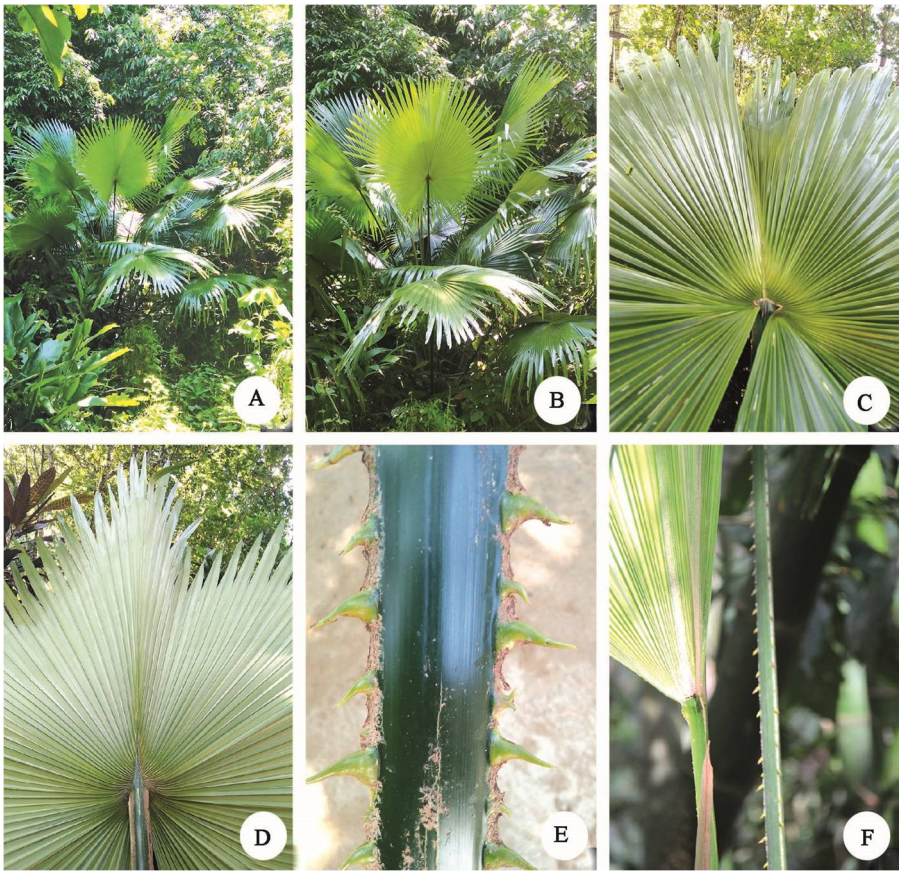

Fig. 1A-F: A *Livistona jenkinsiana* Griff. in natural habitat B. closed view C. adxail view of lamina, D. abaxial view E. petiole with recurved spines F. young lamina and distal end of petiole.

Habitats: The species *Livistona jenkensiana* Griff. usually grows in the deep forest, the stream and channel sides and wet areas of forest and needs soil with the mixture of sand clay and silt. The habitats with high rainfall are the favour condition for the growth of this species.

Specimens examined: Sylhet Sadar Upazila, Khadimnagar National Park, near forest beat office, beginning of two hours trail in the stream bank, 1909-2020, Zashim 415 (DUSH).

In Bangladesh, the family Arecaceae is represented by 40 species (Siddiqui *et al.*, 2007). The number of palm in Bangladesh, with addition of *Livistonajenkinsiana*Griff., has become 41.

Distribution: The family Arecaceae composed of nearly 3000 species (Siddiqui *et al.* 2007), distributed in tropical and warm-temperate regions of the world. The species *Livistona jenkinsiana* Griff.is distributed primarily in India, Nepal, Bhutan, China, Myanmar, Thailand and Malaysia (Wu *et al.*, 2007, Barfod *et al*., 2010).

Population number of this species in khadimnagar national park is about 15-20. These are all seedling to young plants but mother trees are not present among them. According to local foresters and villagers the leaves of this plant are used in thatching purposes, hats making and rain protectors. Assumed that due to over exploitation of leaves for thatching and hats making mother trees became rare or even extinct from the area. Further exploration is necessary throughout Bangladesh, especially in hilly zones to find its population status and distribution record.

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