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Short Communication

A NEW RECORD OF CYCAS CONSERVATION AT SAHARANPUR

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ABSTRACT
Most interesting plant conserved in Saharanpur Botanical Garden, established in 1779, is a very old *Cycas* tree. Present studies on this plant, revealed it to be *Cycas sainathii* in view of the morphology of the megasporophylls of this tree. This paper provides glimpses of various aspects of morphology of this unique and curious tree.

Keywords: *Cycas, Botanic Garden, Conservation*

INTRODUCTION

Botanical garden at Saharanpur was established in 1779. During British rule in India, John F. Duthie was Superintendent of this garden from 1875 to 1903. Now it is designated as "Horticulture Experiment and Training Centre, Saharanpur" under Government of Uttar Pradesh.
During the studies on "Genus Cycas in India", the authors came across a huge female *Cycas* plant at this which is peculiar in many ways. This communication through light on this curious and interesting tree, which is probably oldest *Cycas* tree in India.

MATERIALS AND METHODS

Studies on this tree were made during Nov. 2017 to Feb. 2018 with an objective to establish its identity. Study on the macro-morphological characters were carried out to reveal the identity of taxon. Critical scrutiny of the literature (Pant, 2002; Lindstrom and Hill, 2007; Singh & Srivastava, 2013; Srivastava, 2014; Malik, 2015) was made.

RESUTLS AND DISCUSSION

The results of this study are as under:
Macro-morphotaxonomy:
Trunk, 1.5 m tall, 2.7 m in diameter, branched. Leaves bright green, semi-glossy, 1.7-2.1 m long; mature leaflets flat, 90-140, circinate at young stage; petioles 60-80 cm long, glabrous, spinscent; spines 30-40, 24 mm apart, 2-4 mm long; median leaflets simple, up to 30 x0.1-1.3 cm, *ca* 15 mm apart on rachis, paired leaflets at terminal end of rachis. Cataphylls numerous, narrowly triangular, brown, hairy.

A **B** **C**

Figure: **(A)** A Giant *Cycas sainathii* Srivast. at Horticulture Experiment and Training Centre, Saharanpur, **(B)**A Megasporophylls with Ovule, **(C)** Adventitious roots (Coralloid roots?)

Megasporophylls up to 36 cm long, brown tomentose; lamina lanceolate, 9-10 x 2cm, brown, green above, entire margined with long acuminate apices. Ovules 2-6, glabrous, ovoid, notched apically, green when young, turning yellow then orange on maturity.
A peculiar character of this *Cycas* is presence of coralloid roots on aerial horizontal stem also and it is present toward downward side of horizontal branch of plant; these roots are positively geotropic and show branching.

CONCLUSION

Cycas plant which is situated at "Horticulture Experiment and Training Centre, Saharanpur", shows few peculiarities in its branching pattern and presence of coralloid roots (adventitious) on stem. This plant shows five branches which show further branching at apex. Presence of coralloid roots on stem, is itself a new character and it is also distinguished by absence of algal zone in cortex. On critical study of this plant, mega-sporophylls show entire margin with long acuminate apices with *ca* six ovoid ovules per megasporophyll. These characters clearly indicate that it is *Cycas sainathii* R.C. Srivast.

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