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Cover: Rufous-headed Hornbill *Rhabdotorrhinus waldeni* © Philip Godfrey C. Jakosalem.



A new species of *Pancratium* Dill. ex L. (Amaryllidaceae) from Eastern Ghats of India

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The family Amaryllidaceae has large beautiful flowers and is widely distributed in tropical to subtropical regions. The genus *Pancratium* belongs to Amaryllidaceae and the word *Pancratium* was derived from Greek, which means “all strength” alluding to the medicinal properties of the bulbs of these plants. It was first described by Linnaeus (1753) and it is represented by 21 species from the World (WFO 2021). While India has 11 species—*P. bhramarambae* Sadas., *P. biflorum* Roxb., *P. donaldii* Blatt., *P. longiflorum* Roxb. ex Ker Gawl., *P. nairii* Sasikala & Reema Kumari., *P. parvum* Dalzell., *P. st-mariae* Blatt. & Hallb., *P. telanganense* Sadas., *P. triflorum* Roxb., *P. vercundum* Aiton, and *P. zeylanicum* L. (Sadasivaiah & Karuppasamy 2018). Only two species, *P. longiflorum* and *P. triflorum*, are reported from Eastern Ghats of Andhra Pradesh (Pullaiah 2018).

The genus *Pancratium* having unique characteristics like perennial herbaceous bulbous, linear lanceolate leaves, umbellate inflorescence, large flowers with funnel shaped perianth, six stamens attached on the throat of the perianth with filiform filaments united below by a coronal membrane into a toothed or lobed cup, oblong or linear dorsifixed anthers, tricarpeal,

syncarpous and trilocular, inferior ovary with 2-seriate numerous ovules and filiform style.

During our botanical explorations in the Eastern Ghats of Andhra Pradesh, first author was collected an interesting species of *Pancratium* from hills of Vizianagaram District (Figure 1). It resembles *P. st-mariae*. After critical taxonomic assessment it was identified as a new species and herbarium specimen was deposited in Herbarium, Department of Botany, Andhra University (Image 2). Some of the bulbs were introduced into the College Campus Garden. A detailed description, comparison table (Table 1), and photographs were provided in this article (Image 1).

***Pancratium venkaiahii* R.Prameela, J.Prak.Rao,
S.B.Padal & M.Sankara Rao sp. nov.
(Image 1,2)**

Holotype: AUV 23367, 30.xi.2020, India, Andhra Pradesh, Vizianagaram District, Ginjeru Village, Elevation 75 m, 18.170N, 83.265E, coll. R. Prameela (Image 2)

Diagnosis: Globose bulbs having 5 cm neck; up to 25 cm long leaves; 2-flowered scape having up to 5 cm

Editor: Anonymity requested.

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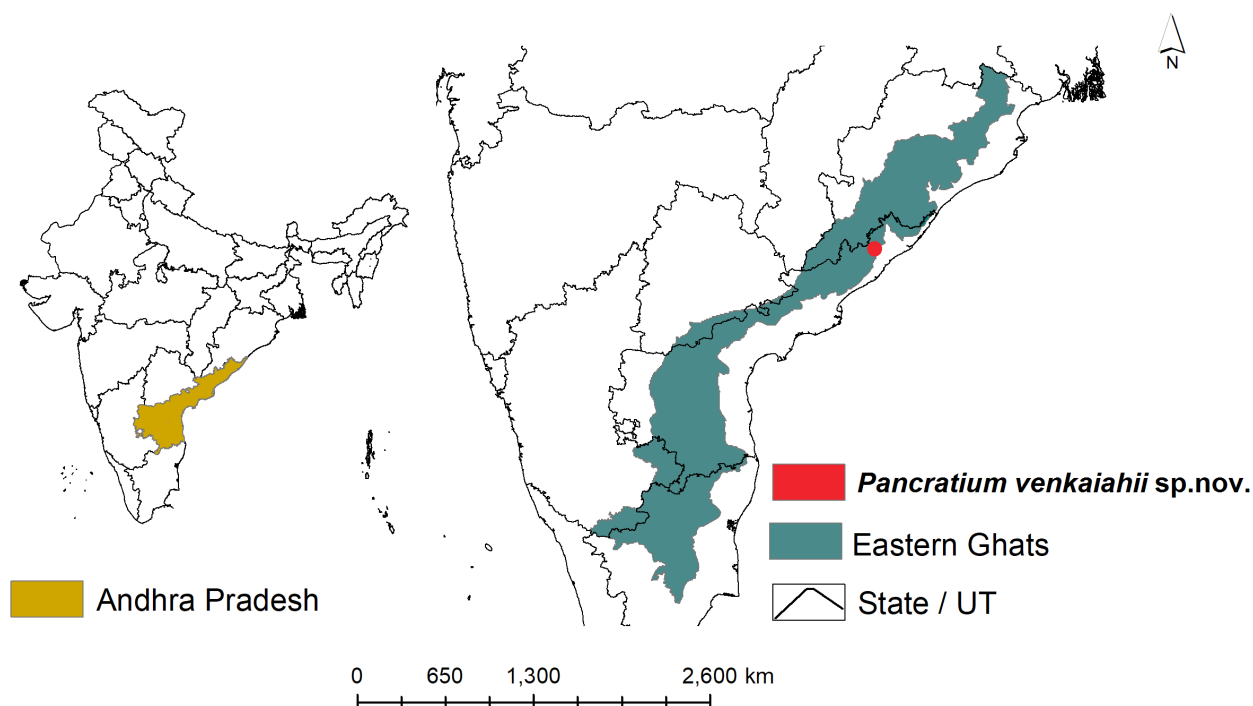


Figure 1. Location map of *Panorantium venkaiahii* sp. nov.

membranous spathe, apex acuminate; flowers without fragrance, with very short perianth tube (1.3cm long), perianth lobes long, filament, greenish white anthers pollen oval shape and long style.

Description: A small perennial bulbous herbs grows up to 30–32 cm height; bulbs globose, 3.2 x 4.1 cm, tunica membranous, dark brown, white when remove the tunica, neck 5–5.5 x 0.4 cm, dark brown; leaves 5–6, radical, narrowly elliptic, semi succulent, 24–25 x 2–2.4 cm, dorsiventral, adaxis dark green, abaxis light green, glabrous, acute; scape 2-flowered, 9 x 0.3 cm, compressed and veined, succulent, green; flowers white, not fragrant, 5.1 x 6.5 cm, bloom at morning; spathe 5 cm long, acute, membranous covered the pedicel and ovary, opening at one side, 2-veined, veins green; pedicel 0.5 cm long, green; perianth tube 1–1.2 cm long, light green, slightly grooved; perianth lobes glabrous, recurved 4–4.5 x 0.25 cm, linear, entire, mucronate white; stamens 6, filaments white, slightly curved at base, shorter than the perianth lobes, 2.2 cm, anthers 0.2 cm long, pale green or tea green, longitudinal dehiscence, versatile, opposite to the filament, pollen oval shape; staminal corona white, 1.1 x 2.2 cm, 12-toothed, tooth 0.2 cm, tip attenuate, glabrous, the two teeth where the filaments arise are close, whereas between the filaments teeth are distant; ovary 3-celled, green, 0.8–1 x 0.4–0.5 cm, glabrous, numerous ovules on axile placentation, style longer than

Table 1. Comparison table of *P. venkaiahii* sp. nov. with *P. st-mariae*.

	Description	<i>P. venkaiahii</i> sp. nov.	<i>P. st-mariae</i>
1.	Bulb	Globose, 3.2 x 4.1 cm, tunica dark brown membranous	Globose, 3.5–6 cm, tunica pale brown, many veined
2.	Neck	5–5.5 cm	10 cm
3.	Leaves	5–6, narrowly elliptic, acute, 24–25 x 2–2.4 cm	2–5, lanceolate, obtuse, 10–15 x 1–1.5 cm
4.	Scape	8–9 cm, long, 2-flowered	10–15 cm long, 2–5 flowered
5.	Spathe	5 cm	2 cm
6.	Pedicel	0.5 cm	0.5 cm
7.	Perianth tube	1.2 cm, light green	3 cm, green
8.	Perianth lobes	Oblong or linear oblong, 4–4.5	Lanceolate, 2–2.5 x 0.2–0.3
9.	Staminal cup	1.1 cm, teeth 0.2 cm	7–10 mm, teeth 2 mm
10.	Anthers	Pale green or pea green	Yellow
11.	Style	6.5 cm	3.5–4.5 cm

the filaments, slender, 6.5 cm, stigma simple. Fruits and seeds not found.

Flowering: November–December.

Etymology: The specific epithet of species was given in honour of Prof. Malleboena Venkaiah (Retired), Department of Botany, Andhra University for his great



Image 1. *Pancratium venkaiahii* sp. nov.: a—Habit | b—flower | c—close-up of flower showing perianth tube and staminal corona. © R. Prameela.

contribution in taxonomy and ethno botany.

Habitat and species association: Rarely found in the open canopy dry deciduous vegetation with an association of ground flora: *Andrographis paniculata* (Burm.f.) Nees, *Aristida adscensionis* L., *Cleome aspera* J.Koenig ex DC., *Cynodon dactylon* (L.) Pers., *Imperata cylindrica* (L.) Raeusch., *Ledebouria revoluta* (L.f.) Jessop, *Sacciolepis interrupta* (Willd.) Stapf; Shrubs: *Canthium coromandelicum* (Burm.f.) Alston, *Opuntia stricta* (Haw.) Haw., *Pavetta zeylanica* (Hook.f.) Gamble, *Senna auriculata* (L.) Roxb.; Climbers: *Cajanus scarabaeoides* (L.) Thouars, *Canavalia gladiata* (Jacq.) DC., *Cissus quadrangularis* L., *Paracalyx scariosus* (Roxb.) Ali, *Smilax zeylanica* L., *Tinospora cordifolia* (Willd.) Miers; Trees: *Ailanthus excelsa* Roxb., *Anogeissus acuminata* (Roxb. ex DC.) Wall. ex Guillem. & Perr., *Bombax ceiba* L., *Butea monosperma* (Lam.) Taub., *Gmelina asiatica* L., *Streblus*

asper Lour., *Strychnos nux-vomica* L., and *Tamarindus indica* L.

Conservation status: Rare in the study area, quantification of the natural populations of this species is not known but this species is facing threats from grazing and anthropogenic activities. First author introduced this species into the College Campus Garden and observed that all individuals were acclimatized and flowered but there was no fruit set. It was observed that the leaves of this plant was fed by caterpillars in the campus and this species is host for some lily moths.

Ethnomedicine: Generally, bulbs are used as medicine for veterinary diseases and is called 'adavivulli'. Ethno medicinal information for human beings is still not known.

India has more than 50% native *Pancratium* species including current report, and detailed studies need to

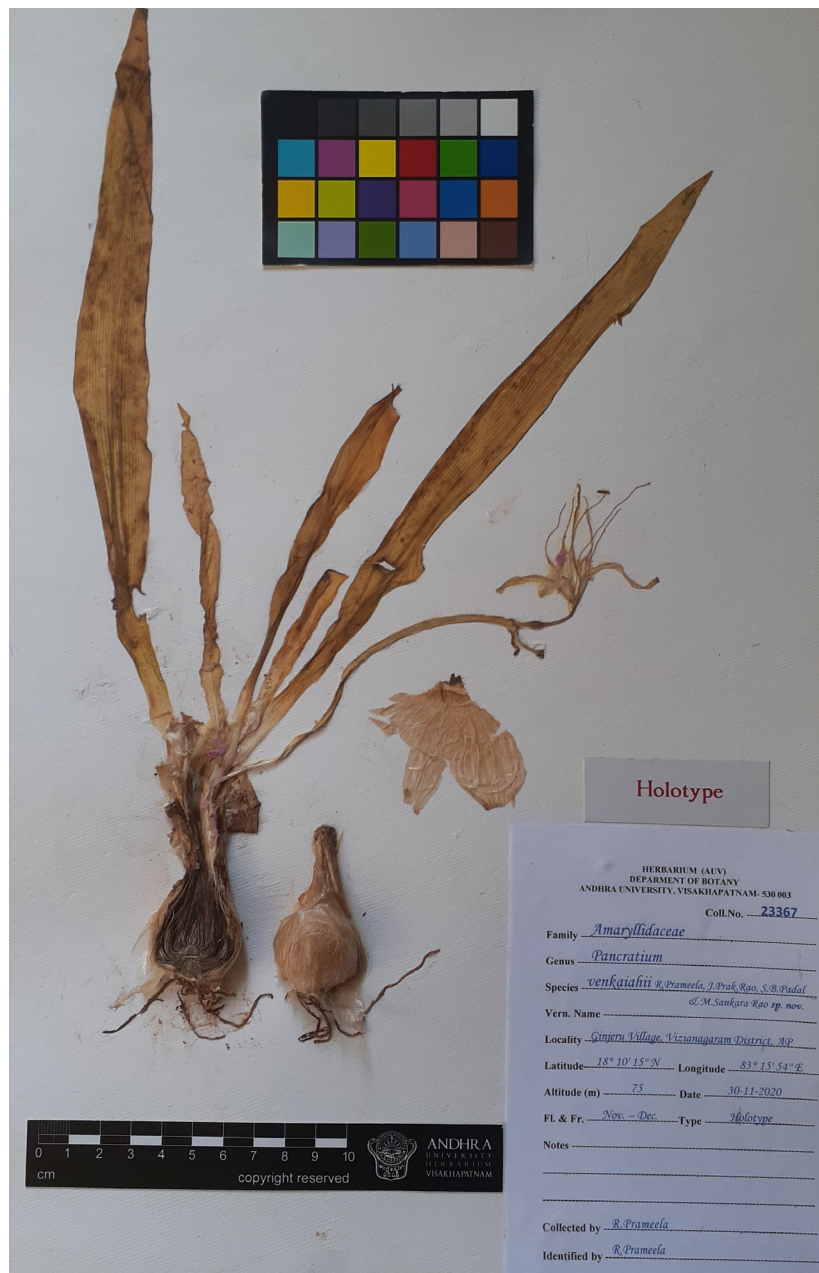


Image 2. Herbarium specimen of *Pancratium venkaiahii* sp. nov. holotype (AUV 23367). © J. Prakasa Rao.

be conducted in the aspects of taxonomy, distribution, economic importance, and conservation status.

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