

The Journal of Threatened Taxa (JoTT) is dedicated to building evidence for conservation globally by publishing peer-reviewed articles online every month at a reasonably rapid rate at www.threatenedtaxa.org. All articles published in JoTT are registered under Creative Commons Attribution 4.0 International License unless otherwise mentioned. JoTT allows unrestricted use, reproduction, and distribution of articles in any medium by providing adequate credit to the author(s) and the source of publication.

## Journal of Threatened Taxa

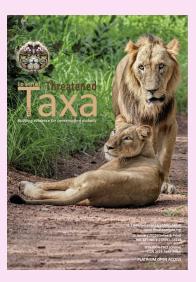
Building evidence for conservation globally

www.threatenedtaxa.org ISSN 0974-7907 (Online) | ISSN 0974-7893 (Print)

## NOTE RE-COLLECTION OF THE LUMINOUS LANTERN FLOWER CEROPEGIA LUCIDA WALL. (APOCYNACEAE) FROM ASSAM, INDIA

Debolina Dey, Manash Baruah, Nilakshee Devi & Jitendra Nath Borah

26 January 2020 | Vol. 12 | No. 1 | Pages: 15212–15215 DOI: 10.11609/jott.5053.12.1.15212-15215





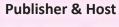
For Focus, Scope, Aims, Policies, and Guidelines visit https://threatenedtaxa.org/index.php/JoTT/about/editorialPolicies#custom-0 For Article Submission Guidelines, visit https://threatenedtaxa.org/index.php/JoTT/about/submissions#onlineSubmissions For Policies against Scientific Misconduct, visit https://threatenedtaxa.org/index.php/JoTT/about/editorialPolicies#custom-2 For reprints, contact <ravi@threatenedtaxa.org>

The opinions expressed by the authors do not reflect the views of the Journal of Threatened Taxa, Wildlife Information Liaison Development Society, Zoo Outreach Organization, or any of the partners. The journal, the publisher, the host, and the partners are not responsible for the accuracy of the political boundaries shown in the maps by the authors.

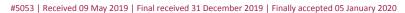
## Partner مندوق محمد بن زاید للمحافظة علی الکائنات الحیة

Member











## Re-collection of the Luminous Lantern Flower *Ceropegia lucida* Wall. (Apocynaceae) from Assam, India

#### Debolina Dey <sup>1</sup>, Manash Baruah <sup>2</sup>, Nilakshee Devi <sup>3</sup>, Jitendra Nath Borah <sup>4</sup>

<sup>1,2,3</sup> Department of Botany, Gauhati University, Jalukbari, Guwahati, Kamrup (Metro), Assam781014, India.
<sup>4</sup> All Sanchi Growers Association of Assam (ASGAA), Alengi Chariali, Titabor, Jorhat, Assam 785632, India.
<sup>1</sup> devolinadey@rediffmail.com (corresponding author), <sup>2</sup> manashbaruah555@gmail.com, <sup>3</sup> devinilakshee@gmail.com,
<sup>4</sup> jitendranathborah39571@gmail.com

*Ceropegia lucida* Wall. was first described by Wallich from Terrya Ghat, Sylhet, Bangladesh in the year 1831. Following that, the plant was also reported from the Khasia Hills, Meghalaya by Hooker & Thomson and by Wallich from Prome, Burma. It was also reported from China, Malaysia and Thailand (Siam). King collected this species from Sikkim in 1874 which was considered as the last collection of the century making it endangered or possibly extinct in India as stated by Nayar & Sashtry until its rediscovery and new distribution record from the Namdapha National Park, Arunachal Pradesh in 2017. Nautiyal's record from Sikkim in 2009 is considered as a misidentification of *Ceropegia longifolia* (Khandal et al. 2017).

During a recent floristic survey to the Golaghat District, Assam during the period from August to October, 2018, the authors came across many interesting plant specimens. On consultation with the existing literature (Wallich 1831; Hooker 1883; Kanjilal et al. 1939; Ansari 1984; Kambale 2015) and herbarium specimens deposited at KEW and CAL, this specimen was confirmed as *Ceropegia lucida* Wall.

### Ceropegia lucida Wall.

() ()

Pl. Asiat. Rar. 2:33, t.139. 1831; Hook.f., Fl. Brit. India 4: 73. 1883; P.C. Kanjilal et al., Fl. Assam 3: 309. 1939; H. Huber, Mem. Soc. Brot; 12, 1-203. 1957; Ansari, Fasc. Fl. India 16: 22. 1984; M.P. Nayar & Sastry (eds.), Red Data Book Indian Pl. 2: 44. 1988; A.P. Jagtap & N.P. Singh, Fasc. Fl. India 24: 229. 1999.

According to the protologues and the existing literature, *Ceropegia lucida* Wall. is a perennial twiner with glabrous stems (Image 1). The leaves are bright green, glabrous, simple, opposite and decussate with elliptic to oblong leaf lamina, 5–11cm x2.3–4.9 cm, petiole 1.4-1.6 cm. The apex is acute to acuminate and base is narrower. Inflorescence axillary with 2-6 flowered umbellate cymes, peduncle 1.5cm (Image 2). Flowers are 1.2–3.2 cm long, greenish or yellowish-white with purple spots, pedicel 1–1.5 cm. Calyx five partite, linear to subulate. Corolla tube cylindrical with a funnel shaped throat and rings of hairs in the wider part. Corolla lobes are greenish-white with purple spots on it, connate at the apex margined by long translucent hairs (Image 3). Corona is biseriate with five bifid deltoid

Editor: K. Haridasan, Palakkad District, Kerala, India.

Date of publication: 26 January 2020 (online & print)

Citation: Dey, D., M. Baruah, N. Devi & J.N. Borah (2020). Re-collection of the Luminous Lantern Flower Ceropegia lucida Wall. (Apocynaceae) from Assam, India. Journal of Threatened Taxa 12(1): 15212–15215. https://doi.org/10.11609/jott.5053.12.1.15212-15215

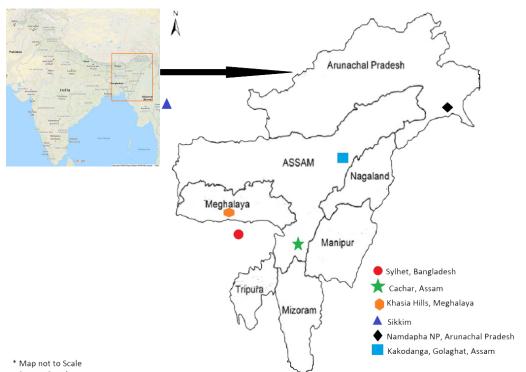
Copyright: © Dey et al. 2020. Creative Commons Attribution 4.0 International License. JoTT allows unrestricted use, reproduction, and distribution of this article in any medium by providing adequate credit to the author(s) and the source of publication.

Funding: None.

Competing interests: The authors declare no competing interests.

Acknowledgements: The authors would like to acknowledge the head, Kew Herbarium Catalogue, Kew; the director, Botanical Survey of India, Howrah (CAL); the curator, Gauhati University Botanical Herbarium and Mr. Brahmananda Patiri, Assam Forest Department for his valuable support in conducting the research work.

Re-collection of Ceropegia lucida from Assam



Source Google

Figure 1. Known locations of Ceropegia lucida Wall. in northeastern India.



Image 1. Habit of Ceropegia lucida Wall.



Image 2. Inflorescence with leaves of Ceropegia lucida Wall.

lobes on the outside and five erect linear to clavate lobes on the inside.

Flowering: September to November; fruits not seen. Specimen examined: Bangladesh, Sylhet, N. Wallich (K001129042, image!); INDIA. Cachar, Assam, June 1874, R. L. Keenan s.n. (K001325174, image!); Sikkim 1874, G. King s.n. (CAL0000031920, image!); Kakodanga, Golaghat, Assam, 25.xi.2018, D. Dey & M. Baruah, DDM01 (GUBH).

Distribution: India (Arunachal Pradesh (Namdapha National Park), Assam (Cachar, Golaghat), Meghalaya (Khasia Hills), Sikkim), Bangladesh (Sylhet), Myanmar (Prome), Thailand, Malaysia, China.

Population and habitat: The authors came across the plant twining on an abandoned streamside land mass from the Golaghat District of Assam. The twiner grew in close association with bamboos, ferns and other climbers like pipers, Paederia foetida etc. Since only 5-6

Attributes	<i>Ceropegia macrantha</i> Wight (Kambale & Yadav 2019).	<i>Ceropegia longifolia</i> Wall. (Kambale & Yadav 2019).	<i>Ceropegia lucida</i> Wall. (Kambale & Yadav 2019; present study).
Leaves	Ovate to lanceolate, 4.5–14 x 2–7 cm.	Lanceolate to linear, 5.7–20.3 x 0.4–3.8 cm.	Elliptic to oblong, 5–11 x 2.3–4.9 cm.
Petiole	1.2–2.4 cm long.	0.5–0.8 cm long.	1.4–1.6 cm long.
Inflorescence	4–5 flowered, subumbellate cymes, peduncle 1.2–2.7 cm long, hairy in rows.	5–12 flowered, umbellate cymes, peduncle 1.8–4 cm long.	2–6 flowered, umbellate cymes, peduncle c. 2cm long, fleshy.
Pedicel	c. 0.8cm long, glabrous.	0.5–1.2 cm long, puberulous.	1–1.5 cm long, glabrous
Corolla	2.5–7.6 cm long with pink spots throughout, tube cylindrical, 1.8–3.2 cm long.	1.6–3.8 cm with dark purple spots restricted to the funnel shaped throat only, tube curved, 0.5–2.5 cm long.	1.8–2.7 cm long with purple spots throughout, tube cylindrical, 1.2–2.5 cm long.
Lobes	2.4–2.8 cm long, yellow at lower and dull green at upper half, linear to lanceolate.	0.5–1 cm long, yellowish-green with dark purple spots, elliptic to ovate.	0.7–2.5 cm long, greenish white with purple spots, broadly or elliptic oblong.
Corona	Outer of 5 deeply bifid, pink coloured densely haired lobes, inner of 5 linear lobes.	Outer of 5 deeply bifid deltoid lobes, ciliate along and within margins, inner of 5 linear sub-spathulate lobes.	Outer of 5 shortly bifid- deltoid lobes, ciliate along margins, inner of linear-clavate lobes.

Table 1. A comparative analysis of Ceropegia lucida Wall. with other closely related species of northeastern India.

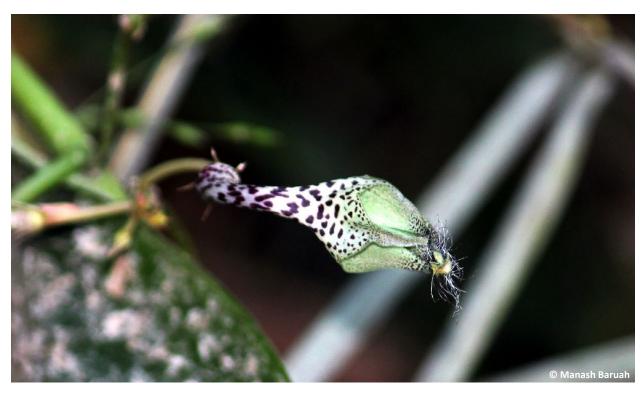


Image 3. A single flower of Ceropegia lucida Wall.

number of individuals were observed growing in a single population, only a single plant with a single matured flower was collected for preservation and herbarium making. The voucher specimen has been deposited at the GUBH, Gauhati University, Guwahati (DDM01).

Discussion: According to the Flora of British India, Vol. IV. 73pp. and herbarium specimen (K001325174, image!); R.L. Keenan had collected this plant from the Cachar District of Assam in June, 1874 after which it was neither collected nor reported from anywhere within the state. Barbhuiya in 2013 categorized it as "Regionally Extinct" after being unable to locate it in its site of occurrence. In a significant finding, the authors came across this plant in Golaghat District of Assam after a gap of 145 years. A few photographs of the plant as well as the herbarium specimen DDM01 (Image 4) along with a map (Figure 1) are provided to aid in its proper identification. Also, a comparative analysis of *Ceropegia lucida* Wall. with other closely related species of northeastern India (viz., *C. macrantha* Wight and *C. longifolia* Wall.) is given in Table 1.

#### Re-collection of Ceropegia lucida from Assam

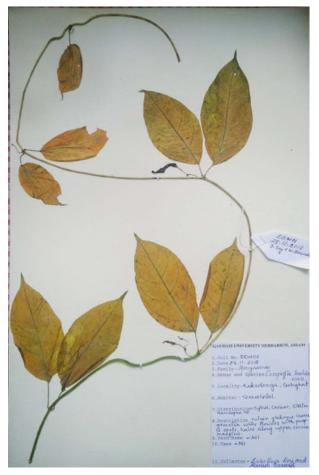


Image 4. Herbarium of *Ceropegia lucida* Wall. Photographed by Manash Baruah.

#### References

- Ansari, M.Y. (ed.) (1984). Flora of India: Fascicle, 16, Asclepiadaceae: Genus - Ceropegia. Botanical Survey of India, Kolkata, 22pp.
- Barbhuiya, H.A. (2013). Study and assessment of threatened and endemic vascular plant of southern Assam. Ph.D. Thesis. Department of Ecology & Environmental Science, Assam University, Silchar, 172pp.
- Hooker, J.D. (1883). Flora of British India. Vol. 4. L. Reeve & Co., London, 73pp.
- Huber, H. (1957). Revision der Gattung Ceropegia. Memorias Da Sociedade Broteriana 12: 1–203.
- Jagtap, A.P. & N.P. Singh (1999). Flora of India: Fascicles, 24, Asclepiadaceae and Periplocaceae. Botanical Survey of India, Kolkata, 229pp.
- Kambale, S.S. (2015). Taxonomic revision of Genus Ceropegia L. in India. Ph. D Thesis. Department of Botany, Shivaji University, 95pp.
- Kambale, S.S. & S.R. Yadav (2019). Taxonomic revision of *Ceropegia* (Apocynaceae : Ceropegieae) in India. *Rheedea* 29(1): 1–115.
- Kanjilal, P.C., A. Das & R.N. De (1939). Flora of Assam. Vol.3. Government of Assam, Shillong, India, 309pp.
- Khandal, D., S. More, G. Kataria & S. Kambale (2017). *Ceropegia lucida*—rediscovery and new distribution record for Arunachal Pradesh, India. *Current Science* 113(11): 2077.
- Nautiyal, D.C., S.K. Sharma & M.K. Pandit (2009). Notes on the taxonomic history, rediscovery and conservation status of two endangered species of *Ceropegia* (Asclepiadaceae) from Sikkim, Himalaya. *Journal of Botanical Research Institute of Texas* 3(2): 815–822.
- Nayar, M.P. & A. R.K. Sastry (1988). Red Data Book of Indian Plants, Vol. 2, pp. 44–45. Botanical Survey of India, Kolkata.
- Wallich, N. (1831). Plantae Asiaticae Raroires. Vol. 2. Richard Taylor for Treuttel and Wurtz, London, 33pp.

https://specimens.kew.org/herbarium/K001129042. https://specimens.kew.org/herbarium/K001325174.



Dey et al.





The Journal of Threatened Taxa (JoTT) is dedicated to building evidence for conservation globally by publishing peer-reviewed articles online every month at a reasonably rapid rate at www.threatenedtaxa.org. All articles published in JoTT are registered under Creative Commons Attribution 4.0 International License unless otherwise mentioned. JoTT allows allows unrestricted use, reproduction, and distribution of articles in any medium by providing adequate credit to the author(s) and the source of publication.

## ISSN 0974-7907 (Online) | ISSN 0974-7893 (Print)

January 2020 | Vol. 12 | No. 1 | Pages: 15091–15218 Date of Publication: 26 January 2020 (Online & Print) DOI: 10.11609/jott.2020.12.1.15091-15218

### **Short Communications**

Description of a new species of the genus *Lampropsephus* Fleutiaux, 1928 (Coleoptera: Elateridae: Elaterinae: Dicrepidiini) from Konkan, Maharashtra, India – Amol Patwardhan & Rahul Khot, Pp. 15181–15185

Spiders (Arachnida: Araneae) from the vicinity of Araabath Lake, Chennai, India – John T.D. Caleb, Pp. 15186–15193

Two new records of gilled mushrooms of the genus Amanita (Agaricales: Amanitaceae) from India – R.K. Verma, V. Pandro & G.R. Rao, Pp. 15194–15200

#### Notes

A first record of oviposition of Common Onyx Horaga onyx Moore, 1857 (Insecta: Lepidoptera: Lycaenidae) in Sri Lanka and its importance in conserving a highly threatened butterfly – Chathura Udayanga Herath, Pavan Bopitiya Gamage, Iroshan Rupasinghe & Moditha Hiranya Kodikara Arachchi, Pp. 15201– 15204

# Additions to known larval host plants of butterflies of the Western Ghats, India

- Deepak Naik & Mohammed S. Mustak, Pp. 15205-15207

## *Rhynchotechum parviflorum* Blume (Gesneriaceae): a new record to mainland India

Momang Taram, Puranjoy Mipun & Dipankar Borah,
Pp. 15208–15211

# Re-collection of the Luminous Lantern Flower *Ceropegia lucida* Wall. (Apocynaceae) from Assam, India

 Debolina Dey, Manash Baruah, Nilakshee Devi & Jitendra Nath Borah, Pp. 15212–15215

Tetrasporidium javanicum Möbius (Chlorophyta), a rare species recorded from Arpa River in Bilaspur, Chhattisgarh, India – Rakesh Kumar Dwivedi, Pp. 15216–15218

## www.threatenedtaxa.org

#### Article

A citizen science approach to monitoring of the Lion Panthera leo (Carnivora: Felidae) population in Niokolo-Koba National Park, Senegal

 – Dimitri Dagorne, Abdoulaye Kanté & John B. Rose, Pp. 15091– 15105

### Communications

## Status, distribution, threats, and conservation of the Ganges River Dolphin *Platanista gangetica* (Mammalia: Artiodactyla: Cetacea) in Nepal

– Deep Narayan Shah, Amit Poudyal, Gopal Sharma, Sarah Levine, Naresh Subedi & Maheshwar Dhakal, Pp. 15106–15113

## Bat (Mammalia: Chiroptera) diversity, dominance, and richness in the southwestern region of Bhutan with three new records for the country

Sangay Tshering, Dhan Bahadur Gurung, Karma Sherub, Sumit
Dookia, Kuenzang Dorji & Pema Choephyel, Pp. 15114–15128

## The pattern of waterbird diversity of the trans-Himalayan wetlands in Changthang Wildlife Sanctuary, Ladakh, India – Pushpinder Singh Jamwal, Shivam Shrotriya & Jigmet Takpa, Pp. 15129–15139

## Composition, diversity and foraging guilds of avifauna in agricultural landscapes In Panipat, Haryana, India – Parmesh Kumar & Sharmila Sahu, Pp. 15140–15153

# An overview of fishes of the Sundarbans, Bangladesh and their present conservation status

Kazi Ahsan Habib, Amit Kumer Neogi, Najmun Nahar, Jina Oh,
Youn-Ho Lee & Choong-Gon Kim, Pp. 15154–15172

# Digital image post processing techniques for taxonomic publications with reference to insects

- Nikhil Joshi, Hemant Ghate & Sameer Padhye, Pp. 15173-15180

## Partner



### Member



## **Publisher & Host**

