



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](https://creativecommons.org/licenses/by/4.0/) 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)

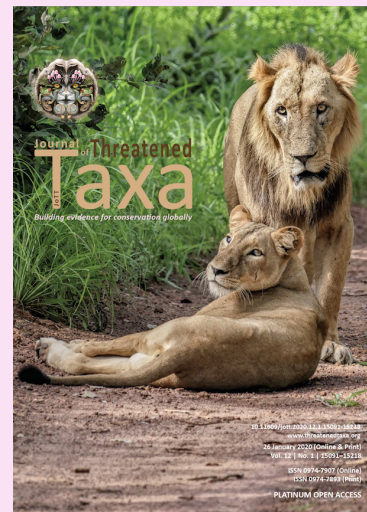
NOTE

***RHYNCHOTECHUM PARVIFLORUM* BLUME (GESNERIACEAE): A NEW RECORD TO MAINLAND INDIA**

Momang Taram, Puranjoy Mipun & Dipankar Borah

26 January 2020 | Vol. 12 | No. 1 | Pages: 15208–15211

DOI: 10.11609/jott.5306.12.1.15208-15211



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>](mailto: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



صندوق محمد بن زايد
للمحافظة على
الكائنات الحية

The Mohamed bin Zayed
SPECIES CONSERVATION FUND

Member



Publisher & Host





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

Momang Taram¹ , Puranjoy Mipun² & Dipankar Borah³

^{1,3} Department of Botany, Rajiv Gandhi University, Rono Hills, Doimukh, Arunachal Pradesh 791112, India.

² Centre for Advanced Studies in Botany, North Eastern Hill University, Shillong, Meghalaya 793022, India.

¹ momangtaram9@gmail.com, ² mipunpuranjoy@gmail.com (corresponding author), ³ dipankar.borah@rgu.ac.in

The genus *Rhynchotechum* Blume is a group of understory shrubs distributed in southeastern and eastern Asia, from India to Japan (Oduo & Roy 2017). It is characterised by having opposite to alternate leaves, pink flowers arranged in cymose inflorescences and white indehiscent berries. It has recently been revised by Anderson & Middleton (2013) who recognized a total of 16 species, of which nine are distributed in India namely (*R. alternifolium* C.B. Clarke, *R. calycinum* C.B. Clarke, *R. ellipticum* (Wall. ex D. Dietr.) A. DC., *R. gracile* B.M. Anderson, *R. hookeri* (C.B. Clarke) B.M. Anderson, *R. obovatum* (Griff.) B.L. Burtt, *R. parviflorum* Blume, *R. permolle* (Nees) B.L. Burtt, and *R. vestitum* (Griff.) Wall. ex C.B. Clarke) from which seven (with the exception of *R. parviflorum* and *R. permolle*) are from northeastern India.

Arunachal Pradesh, the largest state in northeastern India covering an area of 83,743 km², has the second largest forest cover (67,248 km²) in the country (Gurung et al. 2003). The state falls under the continuous belt of Himalaya extending from the plains of Assam to the steppe rugged alpine mountainous belts neighbouring Tibet and Bhutan. Recent studies on the family

Gesneriaceae of the state have led to the publication of several new species such as *Boeica clarkei* Hareesh et al. (2018), *Didymocarpus moellerii* A. Joe et al. (2016: 57), *Lysionotus bijantiae* D. Borah & A. Joe (2018: 232), and *L. gamosepalus* W.T. Wang (1983) var. *biflorus* A. Joe et al. (2017: 337). *Rhynchotechum* is known in the state by all the five species present in northeastern India except for *R. hookeri* (distributed in Assam, in almost opposite boundary neighbouring West Bengal and Bangladesh) and *R. gracile* (known from previous Assam, which consisted most of the northeastern states also Arunachal Pradesh, the locality of the type collection is unknown, and hence its distribution in Arunachal Pradesh is doubtful) (Anderson & Middleton 2013). Even a new species of *Rhynchotechum* (under press) is also found from the state. The genus has very little economic importance owing to its congeners in the family, though plants under this genus are known to have some ethnobotanical uses (Kayang 2007). Considering the richness in diversity, the state has high potential for discovery of both new species and records for the region.

On recent studies conducted on the ethnobotany of

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

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

Citation: Taram, M., P. Mipun & D. Borah (2020). *Rhynchotechum parviflorum* Blume (Gesneriaceae): a new record to mainland India. *Journal of Threatened Taxa* 12(1): 15208–15211. <https://doi.org/10.11609/jott.5306.12.1.15208-15211>

Copyright: © Taram 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: Department of Botany, Rajiv Gandhi University.

Competing interests: The authors declare no competing interests.

Acknowledgements: The authors are thankful to Department of Botany, Rajiv Gandhi University for providing necessary facilities to conduct the research work. They are also thankful to Mr. Ojar Taku for his support and cooperation in the field, Prof. A.P. Das, Dr. Hui Tag and Prof. Sumpam Tangjang for their guidance throughout the course of work.





© Momang Taram

Image 1. *Rhynchotechum parviflorum* Blume: A—habit | B—inflorescence | C—inflorescence branch | D—part of calyx.

Adi-Komkar tribe in Upper Siang District of Arunachal Pradesh, an interesting specimen of *Rhynchotechum* was collected. After study of different literature (Clarke 1874, 1884; Wang et al. 1998; Anderson & Middleton 2013; Sinha & Datta 2016; Odyuo & Roy 2017; Roy et al. 2019), and consultation of herbarium specimen housed at different herbaria (CAL, ARUN, ASSAM, K, E, PE), it was identified as *R. parviflorum*, the type species of the genus known previously from Myanmar, Thailand, Vietnam, China, Sumatra, Kalimantan, Sulawesi, Indonesian New Guinea, Papua New Guinea, Philippines, and Nicobar Islands of India. The presence of this species in the state is not unexpected, considering its distribution in the neighbouring countries. As there is no record of this species from mainland India, the authors hereby report the newly collected specimen as the first authentic distribution record of *R. parviflorum* in mainland India.

***Rhynchotechum parviflorum* Blume,**

Bijdr. Fl. Ned. Ind. 775 (1826); C.B. Clarke in Hook.f., Fl. Brit. India 4: 373 (1884); Vietnam 3(1): 25 (1993); B.L. Burtt, Thai Forest Bull., Bot. 29: 107 (2001) (Image 1 & 2).

Subshrubs, branched or unbranched; stems 30–150 cm tall, 0.5–1.2 cm diameter. Leaves opposite, to sub-opposite; petiole 1.9–5 cm long, glabrous, green; blade broadly elliptic to obovate, 16–27 cm × 8–13 cm, apex acute, base narrowly cuneate to cuneate, margin crenate, adaxially dark green glabrescent, abaxially pale yellow, rusty woolly at young stage, glabrescent when mature, brown pubescent on veins; mid vein channelled, impressed above, raised below, lateral veins opposite to sub-opposite, 12–24 pairs. Inflorescence green to rusty brown, 1.5–3 cm long, 1–2 branched, rusty villous; bracts widely subulate, pinkish, slightly membranous, rusty pubescent to glabrous; pedicel 4–7 mm, villous; calyx greenish to pinkish-brown, lobes triangular with apices rounded 6–8 mm × 1–1.5 mm, villous; corolla glabrous, pink, zygomorphic with a dark purple spot in the base, tube short upper lobes 1–1.2 × 0.8–1 mm, oblong, apex rounded, lower lobes 1–1.5 × 1–1.2 mm, stamens inserted at the base of the tube, filaments 0.5–1 mm, anthers 1 mm across, ovary 1 × 1 mm, shortly puberulent; style white, 3–5 mm long, stigma white, truncate. Berries not seen.

Phenology: Flowering May–June

Note: *Rhynchotechum parviflorum* is nearly similar to *R. calycinum* and *R. hookeri* in having oblanceolate to elliptic ovate leaves, short fascicled inflorescence and sericeous pedicel whereas differs in having villous calyx lobes (vs. glabrous in *R. calycinum*), puberulent and



Image 2. *Rhynchotechum parviflorum* Blume: A—habitat | B—showing the reduced inflorescence with green calyx parts.

shorter style (vs. glabrous to pubescent and longer style in *R. hookeri*).

Ethnobotany: Tender shoots are eaten raw; Jongkot (Adi-Komkar)

Ecology and distribution: It usually prefers cliffs near perennial streams in primary forests as well as in secondary forests and damp groves near roadsides. It grows in association with *Diplazium esculentum*, *Lysionotus bijantiae*, *Henckelia pumila*, *Boeica clarkei*, *Rhynchotechum vestitum*, *Pilea insolens*, *Pilea umbrosa*, *Mycetia mukerjiana*, *Cyclosorus parasiticus*, *Strobilanthes hamiltoniana*, *Justicia* sp. etc.

Conservation status: Least Concern.

Specimen examined: 5068 (HAU), 18.vi.2018, Sikem, Upper Siang District, Arunachal Pradesh, India, 28°21'39"N, 95°4'17"E, 300m, coll. M. Taram and O. Taku (Image 3).

Type: Java, Seribu mountains, Blume s.n. [barcode: 0834014]

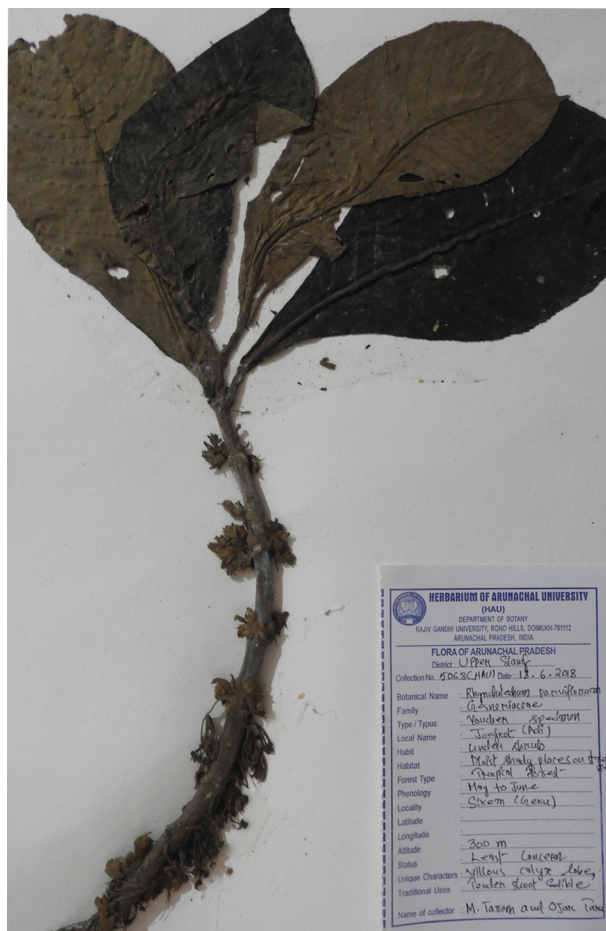
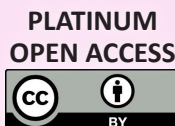


Image 3. Herbarium sheet of *Rhynchotechum parviflorum* Blume (5068 (HAU)).

References

- Anderson, B.M. & D.J. Middleton (2013). A revision of *Rhynchotechum* Blume (Gesneriaceae). *Edinburgh Journal of Botany* 70(1): 121–176.
- Blume, C.L. (1826). *Bijdragen tot de Flora van Nederlandsh Indie*, vol. 3. Batavia: Ter Lands Drukkerij, pp. 731–1169.
- Burt, B. (2001). Thailand: annotated checklist of Gesneriaceae. *Thai Forest Bulletin (Botany)* 29: 81–109.
- Clarke, C.B. (1874). *Commelinaceae et Cyrtandraceae Bengalenses*. Spink and Co., Calcutta, 93pp.
- Clarke, C.B. (1884). Gesneriaceae. In: Hooker, J.D.(Ed.) *The Flora of British India*, vol. 4. Reeve & Co. Ltd., England, pp. 336–375.
- Kayang, H. (2007). Tribal knowledge on wild edible plants of Meghalaya, Northeast India. *Indian Journal of Traditional Knowledge* 6: 177–181.
- Roy, S., T.K. Paul & S.K. Mukherjee (2019). Taxonomic studies of the genus *Rhynchotechum* of Indian part of Eastern Himalaya, pp. 145–155. In: Agnihotri, P. & J.S. Khuraijam (eds.) *Angiosperm Systematics: Recent Trends and Emerging Issues*. M/S Bishen Singh Mahendra Pal Singh, Dehradun, India.
- Sinha, B.K. & S. Datta (2016). Taxonomic account on the family Gesneriaceae in Northeast India. *Nelumbo* 58: 1–43.
- Wang, W., K. Pan, Z. Li, A.L. Weitzman & L.E. Skog (1998). Gesneriaceae, pp. 244–401. In: Wu, Z.Y. & P.H. Raven (Eds.) *Flora of China*, Vol. 19. Science Press, Beijing and Missouri Botanical Garden Press, St. Louis.





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](https://creativecommons.org/licenses/by/4.0/) 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.

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

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 Choephyl, 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

Short Communications

Description of a new species of the genus *Lamprosephus* 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

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

– Momang Taram, Puranjay 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

Partner



صندوق محمد بن زايد
للمحافظة على
الكائنات الحية
The Mohamed bin Zayed
SPECIES CONSERVATION FUND

Member



Publisher & Host

