



40 **zoo**reach
Zoo Outreach Organisation
Years

Open Access



Building evidence for conservation globally
**Journal of
Threatened
Taxa**

10.11609/jott.2026.18.2.28262-28454
www.threatenedtaxa.org

26 February 2026 (Online & Print)
18(2): 28262-28454
ISSN 0974-7907 (Online)
ISSN 0974-7893 (Print)



ISSN 0974-7907 (Online); ISSN 0974-7893 (Print)

Publisher
Wildlife Information Liaison Development Society
www.wild.zooreach.org

Host
Zoo Outreach Organization
www.zooreach.org

Srivari Illam, No. 61, Karthik Nagar, 10th Street, Saravanampatti, Coimbatore, Tamil Nadu 641035, India
Registered Office: 3A2 Varadarajulu Nagar, FCI Road, Ganapathy, Coimbatore, Tamil Nadu 641006, India
Ph: +91 9385339863 | www.threatenedtaxa.org
Email: sanjay@threatenedtaxa.org

EDITORS

Founder & Chief Editor

Dr. Sanjay Molur

Wildlife Information Liaison Development (WILD) Society & Zoo Outreach Organization (ZOO),
Coimbatore, Tamil Nadu 641006, India

Assistant Editor

Dr. Chaithra Shree J., WILD/ZOO, Coimbatore, Tamil Nadu 641006, India

Managing Editor

Mr. B. Ravichandran, WILD/ZOO, Coimbatore, Tamil Nadu 641006, India

Associate Editors

Dr. Mandar Paingankar, Government Science College Gadchiroli, Maharashtra 442605, India

Dr. Ulrike Streicher, Wildlife Veterinarian, Eugene, Oregon, USA

Ms. Priyanka Iyer, ZOO/WILD, Coimbatore, Tamil Nadu 641006, India

Board of Editors

Dr. Russel Mittermeier

Executive Vice Chair, Conservation International, Arlington, Virginia 22202, USA

Prof. Mewa Singh Ph.D., FASC, FNA, FNASC, FNAPsy

Ramanna Fellow and Life-Long Distinguished Professor, Biopsychology Laboratory, and
Institute of Excellence, University of Mysore, Mysuru, Karnataka 570006, India; Honorary
Professor, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore; and Adjunct
Professor, National Institute of Advanced Studies, Bangalore

Stephen D. Nash

Scientific Illustrator, Conservation International, Dept. of Anatomical Sciences, Health Sciences
Center, T-8, Room 045, Stony Brook University, Stony Brook, NY 11794-8081, USA

Dr. Fred Pluthero

Toronto, Canada

Dr. Priya Davidar

Sigur Nature Trust, Chadapatti, Mavinhalla PO, Nilgiris, Tamil Nadu 643223, India

Dr. John Fellowes

Honorary Assistant Professor, The Kadoorie Institute, 8/F, T.T. Tsui Building, The University of
Hong Kong, Pokfulam Road, Hong Kong

Prof. Dr. Mirco Solé

Universidade Estadual de Santa Cruz, Departamento de Ciências Biológicas, Vice-coordenador
do Programa de Pós-Graduação em Zoologia, Rodovia Ilhéus/Itabuna, Km 16 (45662-000)
Salobrinho, Ilhéus - Bahia - Brasil

Dr. Rajeev Raghavan

Professor of Taxonomy, Kerala University of Fisheries & Ocean Studies, Kochi, Kerala, India

English Editors

Mrs. Mira Bhojwani, Pune, India

Dr. Fred Pluthero, Toronto, Canada

Copy Editors

Ms. Usha Madgunaki, Zooreach, Coimbatore, India

Ms. Trisa Bhattacharjee, Zooreach, Coimbatore, India

Ms. Paloma Noronha, Daman & Diu, India

Web Development

Mrs. Latha G. Ravikumar, ZOO/WILD, Coimbatore, India

Typesetting

Mrs. Radhika, Zooreach, Coimbatore, India

Mrs. Geetha, Zooreach, Coimbatore, India

Fundraising/Communications

Mrs. Payal B. Molur, Coimbatore, India

Subject Editors 2021–2023

Fungi

Dr. B. Shivaraju, Bengaluru, Karnataka, India

Dr. R.K. Verma, Tropical Forest Research Institute, Jabalpur, India

Dr. Vatsavaya S. Raju, Kakatiya University, Warangal, Andhra Pradesh, India

Dr. M. Krishnappa, Jnana Sahyadri, Kuvempu University, Shimoga, Karnataka, India

Dr. K.R. Sridhar, Mangalore University, Mangalagangothri, Mangalore, Karnataka, India

Dr. Gunjan Biswas, Vidyasagar University, Midnapore, West Bengal, India

Dr. Kiran Ramchandra Ranadive, Annasaheb Magar Mahavidyalaya, Maharashtra, India

Plants

Dr. G.P. Sinha, Botanical Survey of India, Allahabad, India

Dr. N.P. Balakrishnan, Ret. Joint Director, BSI, Coimbatore, India

Dr. Shonil Bhagwat, Open University and University of Oxford, UK

Prof. D.J. Bhat, Retd. Professor, Goa University, Goa, India

Dr. Ferdinando Boero, Università del Salento, Lecce, Italy

Dr. Dale R. Calder, Royal Ontario Museum, Toronto, Ontario, Canada

Dr. Cleofas Cervancia, Univ. of Philippines Los Baños College Laguna, Philippines

Dr. F.B. Vincent Florens, University of Mauritius, Mauritius

Dr. Merlin Franco, Curtin University, Malaysia

Dr. V. Irudayaraj, St. Xavier's College, Palayamkottai, Tamil Nadu, India

Dr. B.S. Kholia, Botanical Survey of India, Gangtok, Sikkim, India

Dr. Pankaj Kumar, Department of Plant and Soil Science, Texas Tech University, Lubbock, Texas, USA.

Dr. V. Sampath Kumar, Botanical Survey of India, Howrah, West Bengal, India

Dr. A.J. Solomon Raju, Andhra University, Visakhapatnam, India

Dr. Vijayasankar Raman, University of Mississippi, USA

Dr. B. Ravi Prasad Rao, Sri Krishnadevaraya University, Anantpur, India

Dr. K. Ravikumar, FRLHT, Bengaluru, Karnataka, India

Dr. Aparna Watve, Pune, Maharashtra, India

Dr. Qiang Liu, Xishuangbanna Tropical Botanical Garden, Yunnan, China

Dr. Noor Azhar Mohamed Shazili, Universiti Malaysia Terengganu, Kuala Terengganu, Malaysia

Dr. M.K. Vasudeva Rao, Shiv Ranjani Housing Society, Pune, Maharashtra, India

Prof. A.J. Solomon Raju, Andhra University, Visakhapatnam, India

Dr. Mandar Datar, Agharkar Research Institute, Pune, Maharashtra, India

Dr. M.K. Janarthanam, Goa University, Goa, India

Dr. K. Karthigeeyan, Botanical Survey of India, India

Dr. Errol Vela, University of Montpellier, Montpellier, France

Dr. P. Lakshminarasimhan, Botanical Survey of India, Howrah, India

Dr. Larry R. Noblick, Montgomery Botanical Center, Miami, USA

Dr. K. Haridasan, Pallavur, Palakkad District, Kerala, India

Dr. Analinda Manila-Fajard, University of the Philippines Los Baños, Laguna, Philippines

Dr. P.A. Sinu, Central University of Kerala, Kasaragod, Kerala, India

Dr. Afroz Alam, Banasthali Vidyapith (accredited A grade by NAAC), Rajasthan, India

Dr. K.P. Rajesh, Zamorin's Guruvayurappan College, GA College PO, Kozhikode, Kerala, India

Dr. David E. Boufford, Harvard University Herbaria, Cambridge, MA 02138-2020, USA

Dr. Ritesh Kumar Choudhary, Agharkar Research Institute, Pune, Maharashtra, India

Dr. A.G. Pandurangan, Thiruvananthapuram, Kerala, India

Dr. Navendu Page, Wildlife Institute of India, Chandrabani, Dehradun, Uttarakhand, India

Dr. Kannan C.S. Warriar, Institute of Forest Genetics and Tree Breeding, Tamil Nadu, India

Invertebrates

Dr. R.K. Avasthi, Rohtak University, Haryana, India

Dr. D.B. Bastawade, Maharashtra, India

Dr. Partha Pratim Bhattacharjee, Tripura University, Suryamaninagar, India

Dr. Kailash Chandra, Zoological Survey of India, Jabalpur, Madhya Pradesh, India

Dr. Ansie Dippenaar-Schoeman, University of Pretoria, Queenswood, South Africa

Dr. Rory Dow, National Museum of Natural History Naturalis, The Netherlands

Dr. Brian Fisher, California Academy of Sciences, USA

Dr. Richard Gallon, Llandudno, North Wales, LL30 1UP

Dr. Hemant V. Ghate, Modern College, Pune, India

Dr. M. Monwar Hossain, Jahangirnagar University, Dhaka, Bangladesh

For Focus, Scope, Aims, and Policies, visit https://threatenedtaxa.org/index.php/JoTT/aims_scope

For Article Submission Guidelines, visit <https://threatenedtaxa.org/index.php/JoTT/about/submissions>

For Policies against Scientific Misconduct, visit https://threatenedtaxa.org/index.php/JoTT/policies_various

continued on the back inside cover

Cover: Digital illustration of *Impatiens chamchumroonii* in Krita by Dupati Poojitha.



Impatiens chamchumroonii (Balsaminaceae), a new record for the flora of Vietnam

Cuong Huu Nguyen¹ , Diep Quang Dinh² , Dinh Duc Nguyen³ & Keoudone Souvannakhoummane⁴

¹Vietnam National University of Forestry, Xuan Mai, Hanoi, 100000, Vietnam.

²Nong Lam University - Hochiminh City, Linh Xuan, Hochiminh City, 700000, Vietnam.

³Faculty of Agriculture and Forestry, Tay Nguyen University, Dak Lak, 630000, Vietnam.

⁴Faculty of Natural Science, National University of Laos, Dongdok Campus, Xaythany District, Vientiane Capital, 01000, Laos.

¹nguyenhuucuong.tvr@gmail.com (corresponding author), ²dqdiep@gmail.com, ³nddinh@ttn.edu.vn,

⁴k.souvannakhoummane@nuol.edu.la

Abstract: The plant species *Impatiens chamchumroonii* of the Balsaminaceae family was recorded for the first time in Vietnam. They are collected from Dak Lak province hill areas in 2023. The voucher specimens of this species are housed in the herbarium of the Vietnam National University of Forestry (VNF). The species is presented with a taxonomic description, ecology, geographical distribution, occurrence in Vietnam, and field photographs of new records.

Keywords: Dak Lak Province, flowering plant, geographical distribution, new country record, plant taxonomy.

The genus *Impatiens* L. (Balsaminaceae) comprises about over 1,000 species, ranking as the 18th largest genus among flowering plants (Mabberley 2017; POWO 2025). Its distribution extends across tropical and subtropical Africa and Asia, with the centre of diversity and probable origin in southern China (Grey-Wilson 1980; Chen et al. 2007). In Vietnam, the recognized diversity within the genus *Impatiens* has expanded significantly over the past two decades, as evident from recent studies reported with eight species *I. purpureifolia* S.H.Huang & Y.M.Shui (Shui et al. 2011), *I. kamtilongensis* Toppin (Vu et al. 2015), *I. parvisepala* S.X.Yu & Y.T.Hou (Hoang et al. 2015), *I. napoensis* Y.L.Chen (Nguyen et al. 2018), *I.*

siculifera Hook.f. (Pham et al. 2019), *I. monticola* Hook.f. (Nguyen et al. 2021), *I. lobulifera* (Quan et al. 2024), and *I. damrongii* (Ha et al. 2025), which raised the number to 44 species in Vietnam (Tardieu 1944; Nguyen et al. 2000; Pham 2003). A field survey in primary and secondary evergreen broad-leaved lowland forests of central highland area in September 2023, the second and third authors collected an unusual species of *Impatiens*. After careful morphological examination of the species and analysis of available literature as well as collections of different herbaria, namely, HN, LE, VNF, and VNM (all acronyms following Thiers (2024), we identified this plant as *Impatiens chamchumroonii* Suksathan & Ruchis., which was previously reported from Thailand (Suksathan & Ruchisansakun 2022). This is the first record of this species in the flora of Vietnam, the data for which are presented below.

MATERIAL AND METHODS

All newly collected and studied herbarium specimens are presently stored in the herbarium of the Vietnam National University of Forestry (VNF). Color photos of plants were taken in natural habitats. Morphological

Editor: Inocencio Buot Jr., University of the Philippines Los Banos, Laguna, Philippines.

Date of publication: 26 February 2026 (online & print)

Citation: Nguyen, C.H., D.Q. Dinh, D.D. Nguyen & K. Souvannakhoummane (2026). *Impatiens chamchumroonii* (Balsaminaceae), a new record for the flora of Vietnam. *Journal of Threatened Taxa* 18(2): 28419–28423. <https://doi.org/10.11609/jott.9719.18.2.28419-28423>

Copyright: © Nguyen et al. 2026. 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: Authors would like to thank Mr. Tran Quoc An for his kind help during the fieldwork.

observations and measurements were made on living plants, dried specimens, and alcohol-preserved materials. Morphological characters were described using the terminology proposed by Shui et al. (2011) and Ruchisansakun et al. (2018).

RESULTS

Impatiens chamchumroonii Suksathan & Ruchis.; *Impatiens* Thailand 57 (2022). – Type: *R. Pooma*. W.J.J.O. de Wilde, B.E.E. Duyffjes, V. Chamchumroon & K Phattarahirankanok 2506 (holo BKF; iso L.). Thailand, Mukdahan province, Dong Luang, Ban Nalak, mixed deciduous forest slope, 160 m elevation, 24.viii.2001.

Description (Images 1 & 2): Lithophytic annual herb, 20–70 cm tall. Stem erect, glabrous or finely pubescent, when young: hypocotyl simple, elongate, 1–2 cm in diameter, epicotyl laxly branched, sometimes slightly zigzag in upper parts. Leaves spirally arranged, more or less congested at top of stem when young; petiole 1–3 cm long; lamina membranaceous, elliptic, 9–12 × 3.5–6.6 cm, apex acute, base rounded to cuneate, often asymmetric, with a pair of ellipsoid glands at or above the base, red to purple or with a white band along midrib adaxially, pale green abaxially, finely pubescent on both surfaces, margin crenate- serrate. Lateral main veins 12–14 pairs. Inflorescences axillary. Flowers solitary or in 2-flowered fascicles; bracts minute, linear. Flowers white with pinkish purple lower petals, often distorted, 1.5–2 cm wide, lower sepal and lateral united petals well-spaced and forming an elliptic window on each side: pedicel 10–27 mm long. Finely pubescent. Lateral sepals 4: outer pair yellowish white, obliquely oblong-obovate, 9.5–12.5 × 5–6 mm, apex apiculate, upper margins connate almost to the tip, glabrescent: inner pair minute, falcate, ca 1.5 mm long. Lower sepal bucciniform, yellowish, inside with many orange red cross-stripes that are visible through the open lateral windows, ca 9 × 7.5 mm, ca 5 mm deep, apex apiculate, abruptly constricted then hooked and inflated into a ca 5 mm long, white bilobed spur, each lobe scorpion tail-like with an acute, knob-like gland at apex. Dorsal petal white, broadly elliptic to obovate, 7–11 × 5–7 mm, apex emarginate-mucronate, midvein with a low, indistinct crest in the middle. Lateral united petals connate, clawed to 3.6 mm long upper petals white (or slightly yellow) with yellow base, often subequal, broadly obovate to suborbicular, 5–5.5 × 4.3–7.3 mm, apex rounded. Lower petals white to purplish blue, base white with two red stripes, broadly ovate to compressed obovate in outline, 13.5–17 × 12–18 mm, apex bilobed to 1/3–1/2 of its length, lobe apex emarginate, base with a white, low,

triangular keel. Stamen ca 5.3–5.5 mm long; anthers pale yellow. Ovary 4-carpellate, glabrous, ca 3.3 mm long. Fruit oblong-clavate, ca 2 cm long.

Distribution: Thailand (Mukdahan), Vietnam (Dak Lak province, Nam Ka commune).

Habitat: This species is found in Thailand, at elevations of 160 m, in mixed deciduous forest slope. In Vietnam it was observed in secondary evergreen broad-leaved forests, grows in areas with many exposed rocks, next to paths with a canopy cover of 0.1–0.3, near the forest along streams in association with *Lagerstroemia calyculata*, *Cratoxylon formosum*, *Vitex pinnata*, *Colona thorelli*, *Canarium subulatum*, *Irvingia malayana*, *Walsura robusta*, *Wrightia annamensis*, *Aporosa villosa*, *Ficus racemosa*, *Draceana cambodiana* at elevations of 400–450 m.

Specimens examined: Vietnam, Dak Lak province, Nam Ka commune, grows in moist shady places near waterfalls, along streams and occasionally on the rocky crevices covered by evergreen broad-leaved forests, around point 12.298 °N, 108.040 °E, at elevations of about 450 m, 12 September 2023, Dinh Quang Diep, Nguyen Duc Dinh (VNF: NK35).

Note: *Impatiens chamchumroonii* was first described in 2001, with its distribution initially reported as being endemic to the Dong Luang counties in Mukdahan Thailand. *Impatiens chamchumroonii* is somewhat similar to *I. calcicola* Craib in morphology of stem, leaves but differs in having distorted flower (vs. never distorted in *I. calcicola*), lower sepal and lateral united petals well-spaced and forming an elliptic window on each side (vs. no window in *I. calcicola*) and different spur shapes (slender with ellipsoid gland at apex in *I. calcicola* vs scorpion tail-like with an acute, knob-like gland at apex in *I. chamchumroonii*). Plants of *I. chamchumroonii* in Vietnam have minor differences from the Thailand type specimens, including lower petals white to purplish blue (vs. pinkish purple to purplish blue), flowers in September–October (vs. July–August), and habitat in the mountainous area around 450 m elevation (vs. 145–160 m alt.).

REFERENCES

- Chen, Y.L., S. Akiyama & H. Ohba (2007). Balsaminaceae, pp. 43–113. In: Wu, Z.Y., P.H. Raven & D.Y. Hong (eds.). *Flora of China, 12 (Hippocastanaceae through Theaceae)*. Science Press, Beijing & Missouri Botanical Garden Press, St. Louis, USA, 475 pp.
- Chen, Y., J. Chen, Q.Q. Yong, T.H. Yuan, Q. Wang, M.J. Li, S.W. Long & X.X. Bai (2023). Species diversity and geographical distribution patterns of Balsaminaceae in China. *Diversity* 15: 1012. <https://doi.org/10.3390/d15091012>
- Grey-Wilson, C. (1980). *Impatiens of Africa*. Balkema, Rotterdam, Netherlands, viii + 235 pp.

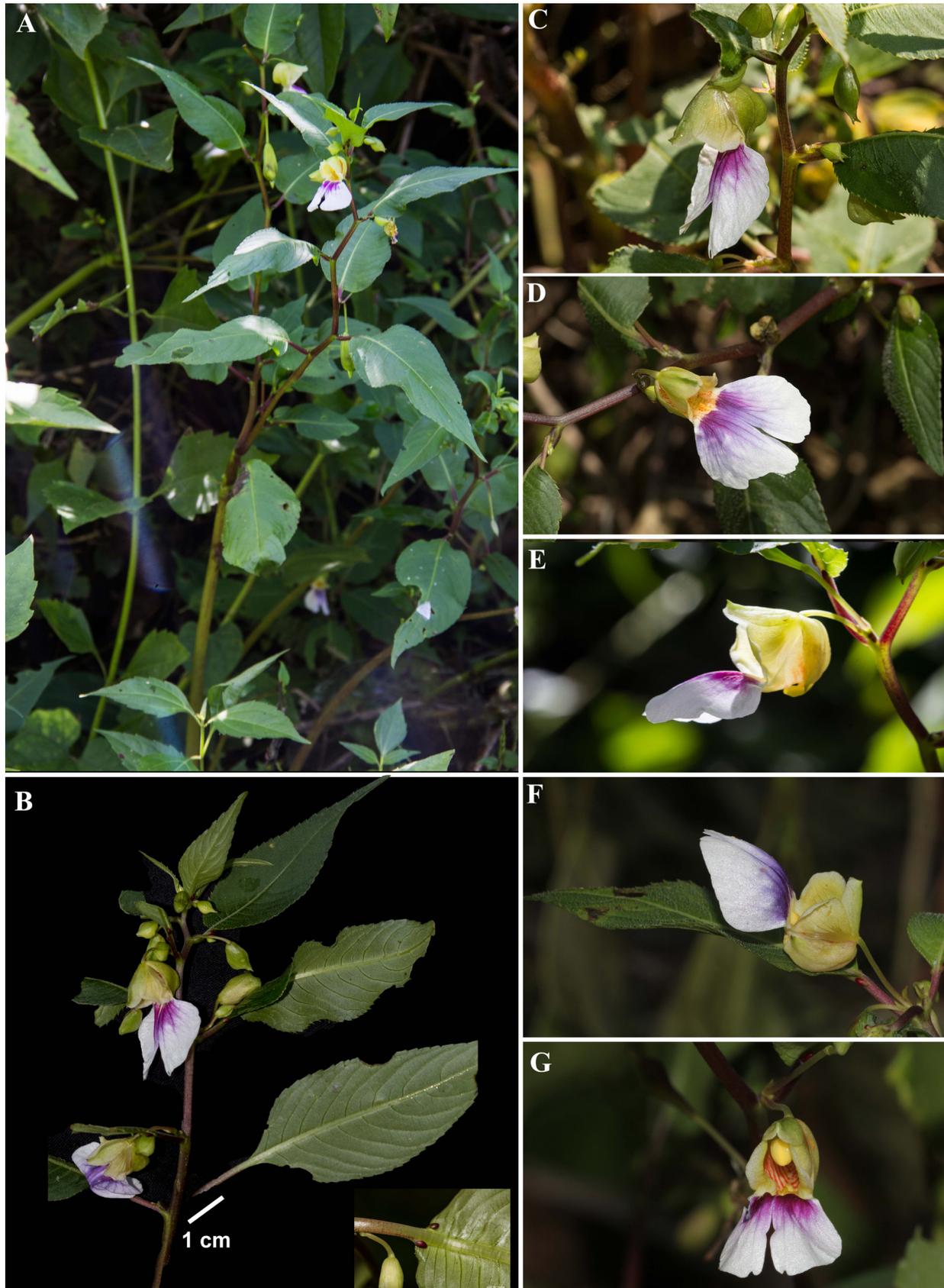


Image 1. *Impatiens chamchumroonii* Suksathan & Ruchis.: A—Plants in natural habitat | B—Plant (pressed specimen) . C, D, E, F, G—Flowers. views from different sides. Photos by Diep Dinh Quang, correction & design by Cuong Huu Nguyen.



Image 2. *Impatiens chamchumroonii* Suksathan & Ruchis. Flowers (pressed specimen). Photos by Diep Dinh Quang, correction & design by Cuong Huu Nguyen.

- Dang, V.H., L.V. Averyanov & C.H. Nguyen (2025). *Impatiens damrongii* (Balsaminaceae), a new record for the flora of Vietnam. *Journal of Threatened Taxa* 17(4): 26558–26561. <https://doi.org/10.11609/jott.9172.17.2.26558-26561>
- Hoang, T.S., N.B. Trinh, Q.H. Nguyen, V.V. Pham & T.V.A. Nguyen (2015). *Impatiens parvisepala* (Balsaminaceae): a newly recorded from Vietnam. *Vietnam Journal of Forest Science* 4: 4018–4020.
- Mabberley, D.J. (2017). *Mabberley's Plant Book—A Portable Dictionary of Plants, their Classification and Uses, 4th Edition*. Cambridge University Press, Cambridge, 1102 pp.
- Nguyen, H.C., L.V. Averyanov, A.A. Egorov & V.L. Nguyen (2021). *Impatiens monticola* (Balsaminaceae), a newly recorded species for the flora of Vietnam. *Botanicheskii Zhurnal (Moscow & St. Petersburg)* 106(10): 1036–1040.
- Nguyen, S.K., Y.H. Tong & N.H. Xia (2018). *Impatiens napoensis* (Balsaminaceae): a newly recorded species for the flora of Vietnam. *Journal of Tropical and Subtropical Botany* 26: 545–548. <https://doi.org/10.11926/jtsb.3905>
- Nguyen, T.H & R. Kiew (2000). New and interesting plants from Ha Long Bay, Vietnam. *The Gardens' Bulletin, Singapore* 52: 185–202.
- Pham, H.H. (2003). *An Illustrated Flora of Vietnam, Vol. 2*. Ho Chi Minh, Vietnam, 298–306.
- Pham, T.T., V.T. Do, T.T. Nguyen, T.T. Phung & V.T. Pham (2019). *Impatiens siculifera* (Balsaminaceae): a new record for the flora of Vietnam. *Acta Phytotaxonomica et Geobotanica* 70: 63–66. <https://doi.org/10.18942/apg.201817>
- Plants of the World Online (2022). *Impatiens chamchumroonii* Suksathan & Ruchis.: The world list of *Impatiens* species. <https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:77336882-1>. Accessed on 21.ii.2026
- Quan, N.C., L.V. Averyanov, H.D. Vo, D.H. Nguyen, H.V. Dang, Y.T. Nguyen, L.V. Nguyen & C.H. Nguyen (2024). New species, *Impatiens lobulifera* (Balsaminaceae) in the flora of Vietnam. *Vietnamese Academy of Forest Sciences* 1: 3–9.
- Ruchisansakun, S., P. Suksathan, T. van der Niet, E.F. Smets, Saw-Lwin & S.B. Janssens (2018). Balsaminaceae of Myanmar. *Blumea* 63: 199–267. <https://doi.org/10.3767/blumea.2018.63.03.01>
- Shinobu A., O. Hideaki & S.K. Wu (1996). Further Notes of *Impatiens* (Balsaminaceae) from Yunnan, China. *Bulletin of the National Museum of Nature and Science Series B* 22(4): 135–144.
- Shui, Y.M., S. Janssens, S.H. Huang, W.H. Chen & Z.G. Yang (2011). Three new species of *Impatiens* L. from China and Vietnam: preparation of flowers and morphology of pollen and seeds. *Systematic Botany* 36(2): 428–439. <https://doi.org/10.1600/036364411X569615>
- Suksathan, P. & S. Ruchisansakun (2022). *Impatiens of Thailand*. Natural History Publications, Borneo, Thailand, 396 pp.
- Tardieu, B.M. (1944). Les *Impatiens* d'Indochine, repartition, affinités et description d'espèces nouvelles. *Notulae Systematicae* 11: 169–185.
- Thiers, B.M. (2024). Index Herbariorum available at <http://sweetgum.nybg.org/science/ih/>. Accessed on 04 August 2025. (all acronyms following Thiers 2024).
- Vu, T.C., T.T.H. Nguyen, H.Q. Bui & P. Suksathan (2015). A new record of *Impatiens kamtilongensis* Toppin (Balsaminaceae) for Vietnam flora. *Academia Journal of Biology* 37(3): 332–335. <https://doi.org/10.15625/0866-7160/v37n3.6967>



Mr. Jatishwor Singh Irungbam, Biology Centre CAS, Branišovská, Czech Republic.
Dr. Ian J. Kitching, Natural History Museum, Cromwell Road, UK
Dr. George Mathew, Kerala Forest Research Institute, Peechi, India
Dr. John Noyes, Natural History Museum, London, UK
Dr. Albert G. Orr, Griffith University, Nathan, Australia
Dr. Sameer Padhye, Katholieke Universiteit Leuven, Belgium
Dr. Nancy van der Poorten, Toronto, Canada
Dr. Kareen Schnabel, NIWA, Wellington, New Zealand
Dr. R.M. Sharma, (Retd.) Scientist, Zoological Survey of India, Pune, India
Dr. Manju Siliwal, WILD, Coimbatore, Tamil Nadu, India
Dr. G.P. Sinha, Botanical Survey of India, Allahabad, India
Dr. K.A. Subramanian, Zoological Survey of India, New Alipore, Kolkata, India
Dr. P.M. Sureshan, Zoological Survey of India, Kozhikode, Kerala, India
Dr. R. Varatharajan, Manipur University, Imphal, Manipur, India
Dr. Eduard Vives, Museu de Ciències Naturals de Barcelona, Terrassa, Spain
Dr. James Young, Hong Kong Lepidopterists' Society, Hong Kong
Dr. R. Sundararaj, Institute of Wood Science & Technology, Bengaluru, India
Dr. M. Nithyanandan, Environmental Department, La Ala Al Kuwait Real Estate. Co. K.S.C., Kuwait
Dr. Himender Bharti, Punjabi University, Punjab, India
Mr. Purnendu Roy, London, UK
Mr. Saito Motoki, The Butterfly Society of Japan, Tokyo, Japan
Dr. Sanjay Sondhi, TITLI TRUST, Kalpavriksh, Dehradun, India
Dr. Nguyen Thi Phuong Lien, Vietnam Academy of Science and Technology, Hanoi, Vietnam
Dr. Nitin Kulkarni, Tropical Research Institute, Jabalpur, India
Dr. Robin Wen Jiang Ngiam, National Parks Board, Singapore
Dr. Lionel Monod, Natural History Museum of Geneva, Genève, Switzerland.
Dr. Asheesh Shivam, Nehru Gram Bharti University, Allahabad, India
Dr. Rosana Moreira da Rocha, Universidade Federal do Paraná, Curitiba, Brasil
Dr. Kurt R. Arnold, North Dakota State University, Saxony, Germany
Dr. James M. Carpenter, American Museum of Natural History, New York, USA
Dr. David M. Claborn, Missouri State University, Springfield, USA
Dr. Kareen Schnabel, Marine Biologist, Wellington, New Zealand
Dr. Amazonas Chagas Júnior, Universidade Federal de Mato Grosso, Cuiabá, Brasil
Mr. Monsoon Jyoti Gogoi, Assam University, Silchar, Assam, India
Dr. Heo Chong Chin, Universiti Teknologi MARA (UiTM), Selangor, Malaysia
Dr. R.J. Shiel, University of Adelaide, SA 5005, Australia
Dr. Siddharth Kulkarni, The George Washington University, Washington, USA
Dr. Priyadarsanan Dharma Rajan, ATREE, Bengaluru, India
Dr. Phil Alderslade, CSIRO Marine And Atmospheric Research, Hobart, Australia
Dr. John E.N. Veron, Coral Reef Research, Townsville, Australia
Dr. Daniel Whitmore, State Museum of Natural History Stuttgart, Rosenstein, Germany.
Dr. Yu-Feng Hsu, National Taiwan Normal University, Taipei City, Taiwan
Dr. Keith V. Wolfe, Antioch, California, USA
Dr. Siddharth Kulkarni, The Hormiga Lab, The George Washington University, Washington, D.C., USA
Dr. Tomas Ditrich, Faculty of Education, University of South Bohemia in Ceske Budejovice, Czech Republic
Dr. Mihaly Foldvari, Natural History Museum, University of Oslo, Norway
Dr. V.P. Uniyal, Wildlife Institute of India, Dehradun, Uttarakhand 248001, India
Dr. John T.D. Caleb, Zoological Survey of India, Kolkata, West Bengal, India
Dr. Priyadarsanan Dharma Rajan, Ashoka Trust for Research in Ecology and the Environment (ATREE), Royal Enclave, Bangalore, Karnataka, India

Fishes

Dr. Topiltzin Contreras MacBeath, Universidad Autónoma del estado de Morelos, México
Dr. Heok Hee Ng, National University of Singapore, Science Drive, Singapore
Dr. Rajeesh Raghavan, St. Albert's College, Kochi, Kerala, India
Dr. Robert D. Sluka, Chiltern Gateway Project, A Rocha UK, Southall, Middlesex, UK
Dr. E. Vivekanandan, Central Marine Fisheries Research Institute, Chennai, India
Dr. Davor Zanella, University of Zagreb, Zagreb, Croatia
Dr. A. Biju Kumar, University of Kerala, Thiruvananthapuram, Kerala, India
Dr. Akhilesh K.V., ICAR-Central Marine Fisheries Research Institute, Mumbai Research Centre, Mumbai, Maharashtra, India
Dr. J.A. Johnson, Wildlife Institute of India, Dehradun, Uttarakhand, India
Dr. R. Ravinesh, Gujarat Institute of Desert Ecology, Gujarat, India

Amphibians

Dr. Sushil K. Dutta, Indian Institute of Science, Bengaluru, Karnataka, India
Dr. Annemarie Ohler, Muséum national d'Histoire naturelle, Paris, France

Reptiles

Dr. Gernot Vogel, Heidelberg, Germany
Dr. Raju Vyasa, Vadodara, Gujarat, India
Dr. Pritpal S. Soorae, Environment Agency, Abu Dhabi, UAE
Prof. Dr. Wayne J. Fuller, Near East University, Mersin, Turkey
Prof. Chandrashekhar U. Rivonker, Goa University, Taleigao Plateau, Goa, India
Dr. S.R. Ganesh, Kalinga Foundation, Agumbe, India.
Dr. Himansu Sekhar Das, Terrestrial & Marine Biodiversity, Abu Dhabi, UAE

Birds

Dr. Hem Sagar Baral, Charles Sturt University, NSW Australia
Mr. H. Byju, Coimbatore, Tamil Nadu, India
Dr. Chris Bowden, Royal Society for the Protection of Birds, Sandy, UK
Dr. Priya Davidar, Pondicherry University, Kalapet, Puducherry, India
Dr. J.W. Duckworth, IUCN SSC, Bath, UK
Dr. Rajah Jayapal, SACON, Coimbatore, Tamil Nadu, India
Dr. Rajiv S. Kalsi, M.L.N. College, Yamuna Nagar, Haryana, India
Dr. V. Santharam, Rishi Valley Education Centre, Chittoor Dt., Andhra Pradesh, India
Dr. S. Balachandran, Bombay Natural History Society, Mumbai, India
Mr. J. Praveen, Bengaluru, India
Dr. C. Srinivasulu, Osmania University, Hyderabad, India
Dr. K.S. Gopi Sundar, International Crane Foundation, Baraboo, USA
Dr. Gombobaatar Sunde, Professor of Ornithology, Ulaanbaatar, Mongolia
Prof. Reuven Yosef, International Birding & Research Centre, Eilat, Israel
Dr. Taej Mundkur, Wetlands International, Wageningen, The Netherlands
Dr. Carol Inskipp, Bishop Auckland Co., Durham, UK
Dr. Tim Inskipp, Bishop Auckland Co., Durham, UK
Dr. V. Gokula, National College, Tiruchirappalli, Tamil Nadu, India
Dr. Arkady Lelej, Russian Academy of Sciences, Vladivostok, Russia
Dr. Simon Dowell, Science Director, Chester Zoo, UK
Dr. Mário Gabriel Santiago dos Santos, Universidade de Trás-os-Montes e Alto Douro, Quinta de Prados, Vila Real, Portugal
Dr. Grant Connette, Smithsonian Institution, Royal, VA, USA
Dr. P.A. Azeez, Coimbatore, Tamil Nadu, India

Mammals

Dr. Giovanni Amori, CNR - Institute of Ecosystem Studies, Rome, Italy
Dr. Anwaruddin Chowdhury, Guwahati, India
Dr. David Mallon, Zoological Society of London, UK
Dr. Shomita Mukherjee, SACON, Coimbatore, Tamil Nadu, India
Dr. Angie Appel, Wild Cat Network, Germany
Dr. P.O. Nameer, Kerala Agricultural University, Thrissur, Kerala, India
Dr. Ian Redmond, UNEP Convention on Migratory Species, Lansdown, UK
Dr. Heidi S. Riddle, Riddle's Elephant and Wildlife Sanctuary, Arkansas, USA
Dr. Karin Schwartz, George Mason University, Fairfax, Virginia.
Dr. Lala A.K. Singh, Bhubaneswar, Orissa, India
Dr. Mewa Singh, Mysore University, Mysore, India
Dr. Paul Racey, University of Exeter, Devon, UK
Dr. Honnavalli N. Kumara, SACON, Anaikatty P.O., Coimbatore, Tamil Nadu, India
Dr. Nishith Dharaiya, HNG University, Patan, Gujarat, India
Dr. Spartaco Gippoliti, Socio Onorario Società Italiana per la Storia della Fauna "Giuseppe Altobello", Rome, Italy
Dr. Justus Joshua, Green Future Foundation, Tiruchirappalli, Tamil Nadu, India
Dr. H. Raghuram, Sri S. Ramasamy Naidu Memorial College, Virudhunagar, Tamil Nadu, India
Dr. Paul Bates, Harison Institute, Kent, UK
Dr. Jim Sanderson, Small Wild Cat Conservation Foundation, Hartford, USA
Dr. Dan Challender, University of Kent, Canterbury, UK
Dr. David Mallon, Manchester Metropolitan University, Derbyshire, UK
Dr. Brian L. Cypher, California State University-Stanislaus, Bakersfield, CA
Dr. S.S. Talmale, Zoological Survey of India, Pune, Maharashtra, India
Prof. Karan Bahadur Shah, Budhanilakantha Municipality, Kathmandu, Nepal
Dr. Susan Cheyne, Borneo Nature Foundation International, Palangkaraja, Indonesia
Dr. Hemanta Kafley, Wildlife Sciences, Tarleton State University, Texas, USA

Other Disciplines

Dr. Aniruddha Belsare, Columbia MO 65203, USA (Veterinary)
Dr. Mandar S. Paingankar, University of Pune, Pune, Maharashtra, India (Molecular)
Dr. Jack Tordoff, Critical Ecosystem Partnership Fund, Arlington, USA (Communities)
Dr. Ulrike Streicher, University of Oregon, Eugene, USA (Veterinary)
Dr. Hari Balasubramanian, EcoAdvisors, Nova Scotia, Canada (Communities)
Dr. Rayanna Hellem Santos Bezerra, Universidade Federal de Sergipe, São Cristóvão, Brazil
Dr. Jamie R. Wood, Landcare Research, Canterbury, New Zealand
Dr. Wendy Collinson-Jonker, Endangered Wildlife Trust, Gauteng, South Africa
Dr. Rajeshkumar G. Jani, Anand Agricultural University, Anand, Gujarat, India
Dr. O.N. Tiwari, Senior Scientist, ICAR-Indian Agricultural Research Institute (IARI), New Delhi, India
Dr. L.D. Singla, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, India
Dr. Rupika S. Rajakaruna, University of Peradeniya, Peradeniya, Sri Lanka
Dr. Bahar Baviskar, Wild-CER, Nagpur, Maharashtra 440013, India

Reviewers 2021–2023

Due to paucity of space, the list of reviewers for 2021–2023 is available online.

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.

Journal of Threatened Taxa is indexed/abstracted in Bibliography of Systematic Mycology, Biological Abstracts, BIOSIS Previews, CAB Abstracts, EBSCO, Google Scholar, Index Copernicus, Index Fungorum, JournalSeek, National Academy of Agricultural Sciences, NewJour, OCLC WorldCat, SCOPUS, Stanford University Libraries, Virtual Library of Biology, Zoological Records.

NAAS rating (India) 5.64

Print copies of the Journal are available at cost. Write to:
The Managing Editor, JoTT,
c/o Wildlife Information Liaison Development Society,
3A2 Varadarajulu Nagar, FCI Road, Ganapathy, Coimbatore,
Tamil Nadu 641006, India
ravi@threatenedtaxa.org & ravi@zooreach.org



OPEN ACCESS



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)

February 2026 | Vol. 18 | No. 2 | Pages: 28262–28454

Date of Publication: 26 February 2026 (Online & Print)

DOI: 10.11609/jott.2026.18.2.28262-28454

www.threatenedtaxa.org

Articles

Floristic composition and conservation significance of vascular plants in Kalatop-Khajjiar Wildlife Sanctuary, Himachal Pradesh, India

– Sumit, Gulshan Kumar, Sumit Singh, Kanwaljeet Singh, Taslima Sheikh, P. Vishal Ahuja & Arvind Kumar, Pp. 28263–28274

Assessing the tree diversity along the Dudhganga River in Kolhapur District of Maharashtra, India

– Sachin Chavan & Rajaram Gurav, Pp. 28275–28286

Flower bud growth, mortality rate, and population structure of *Sapria himalayana* Griffith f. *albavinosa* Banziger & Hansen (Rafflesiaceae) in a subtropical forest, northeastern India

– K. Shamran Maring & Athokpam Pinokiyo, Pp. 28287–28295

Comparing three sampling techniques for surveying and monitoring arthropods in Moroccan agroecosystems

– Hanae El Harche, Pp. 28296–28306

Community structure of Lepidoptera in Nantu-Bolihuto Wildlife Reserve, Sulawesi, Indonesia

– Chairunnisah J. Lamangantjo, Marini Susanti Hamidun, Sasmianti & Dewi Wahyuni K. Baderan, Pp. 28307–28316

Foraging niche segregation among woodpeckers in the oak-pine forest of Kumaon Himalaya, Uttarakhand, India

– Rafat Jahan, Satish Kumar & Kaleem Ahmed, Pp. 28317–28328

Local knowledge, attitudes, and perceptions of ecosystem services and disservices provided by the Painted Stork *Mycteria leucocephala* Pennant, 1769 (Aves: Ciconiidae) in northern India: insights for conservation

– Yashmita-Ulman & Manoj Singh, Pp. 28329–28342

Communications

Analysis revealed minuscule DNA sequence data availability for Indian marine macroalgal diversity

– Digvijay Singh Yadav, Aswin Alichen & Vaibhav A. Mantri, Pp. 28343–28349

Checklist of rust fungi of the Nuratau Nature Reserve, Uzbekistan

– I.M. Mustafae, M.M. Iminova, I.Z. Ortiqov, S.A. Teshaboyeva & N.Q. Iskanov, Pp. 28350–28357

Checklist of moths (Lepidoptera: Heterocera) from the campus of University of North Bengal, Siliguri, India

– Abhirup Saha, Ratnadeep Sarkar, Rujas Yonle, Subhajit Das, Prapti Das & Dhiraj Saha, Pp. 28358–28369

Vulture diversity and long-term trends in the Ranikhet region, Kumaon Himalaya, Uttarakhand, India

– Mirza Altaf Baig, Nazneen Zehra & Jamal Ahmad Khan, Pp. 28370–28377

Nesting dynamics of Red-wattled Lapwing *Vanellus indicus* Boddaert, 1783 in urban and rural regions of Indore, India

– Kratika Patidar & Vipul Keerti Sharma, Pp. 28378–28386

Assessing avian diversity and conservation status in Dhamapur Lake World Heritage Irrigation Structure, Sindhudurg, Maharashtra, India

– Yogesh Koli, Pravin Sawant & Mayuri Chavan, Pp. 28387–28398

Population status and habitat use of Indian Grey Wolf *Canis lupus pallipes* in Pench Tiger Reserve, Madhya Pradesh, India

– Iqra Rabbani & Sharad Kumar, Pp. 28399–28405

Activity budgets of a zoo-housed Mishmi Takin *Budorcas taxicolor taxicolor* (Mammalia: Artiodactyla: Bovidae) herd

– Nabanita Ghosh, Pranita Gupta, Joy Dey & Basavaraj S. Holeyachi, Pp. 28406–28412

Extended distribution of *Nymphoides peltata* (S.G.Gmel.) Kuntze (Menyanthaceae) in Manipur, India

– Aahen Chanu Waikhom & Bimolkumar Singh Sadokpam, Pp. 28413–28418

Short Communications

***Impatiens chamchumroonii* (Balsaminaceae), a new record for the flora of Vietnam**

– Cuong Huu Nguyen, Diep Quang Dinh, Dinh Duc Nguyen & Keoudone Souvannakhoumane, Pp. 28419–28423

Occurrence of the wood fern *Arachniodes sledgei* Fraser-Jenk. (Pteridophyta: Dryopteridaceae) in the northern Western Ghats, India

– Sachin Patil & Jagannath Patil, Pp. 28424–28427

Notes

A note on the Petal-less Caper *Maerua apetala* (B. Heyne ex Roth) Jacobs (Capparaceae)

– Shamsudheen Abdul Kader & Bagavathy Parthipan, Pp. 28428–28429

Record of *Euploea mulciber* (Cramer, [1777]) (Lepidoptera: Nymphalidae) in Delhi, India: evidence of range extension in a restored urban ecosystem

– Aisha Sultana, Mohammad Shah Hussain & Balwinder Kaur, Pp. 28430–28432

Hump-nosed Pit Viper *Hypnale hypnale* feeding on an Allapalli Skink *Eutropis allapallensis* in Karwar, India

– Nonita Rana, Karthy Shivapushanam, S.J.D. Frank & Govindan Veeraswami Gopi, Pp. 28433–28435

Sighting of vagrant Red-backed Shrike *Lanius collurio* in the coastal areas of Thoothukudi, Tamil Nadu, India

– Kishore Muthu, Anand Shibu & Santhanakrishnan Babu, Pp. 28436–28437

First record of the Diamond Dove *Geopelia cuneata*, an Australian endemic, in Sikhna Jwhlwao National Park, Assam, India

– Bibhash Sarkar, Bijay Basfore, Leons Mathew Abraham & Anjana Singha Naorem, Pp. 28438–28440

First photographic record of the Rusty-spotted Cat *Prionailurus rubiginosus* (I. Geoffroy Saint-Hilaire, 1831) (Mammalia: Carnivora: Felidae) in Kuldiha Wildlife Sanctuary, Odisha, India

– Tarun Singh, Harshvardhan Singh Rathore, N. Abhin, Subhalaxmi Muduli, Yash Deshpande, Vivek Sarkar, Diganta Sovan Chand, Samrat Gowda, Prakash C. Gogineni, Manoj V. Nair, Bivash Pandav & Samrat Mondol, Pp. 28441–28443

First photographic evidence of the Rusty-spotted Cat *Prionailurus rubiginosus* (I. Geoffroy Saint-Hilaire, 1831) (Mammalia: Carnivora: Felidae) in Kapilash Wildlife Sanctuary, Odisha, India

– Alok Kumar Naik, Sumit Kumar Kar, Shyama Bharati, Ashit Chakraborty & Ashis Kumar Das, Pp. 28444–28446

Record of a Tiger *Panthera tigris* (Linnaeus, 1758) (Mammalia: Carnivora: Felidae) in Saptari District of eastern Nepal: implications for conservation and habitat connectivity

– Gobinda Prasad Pokharel, Chiranjibi Prasad Pokharel, Ashish Gurung, Bishnu Singh Thakuri, Ambika Prasad Khatiwada, Aastha Joshi, Birendra Gautam, Mithilesh Mahato, Naresh Subedi & Madhu Chetri, Pp. 28447–28450

Book Review

At the Point of No Return? – Reading Pankaj Sekhsaria's Island on Edge: The Great Nicobar Crisis

– Himangshu Kalita, Pp. 28451–28454

Publisher & Host



Threatened Taxa