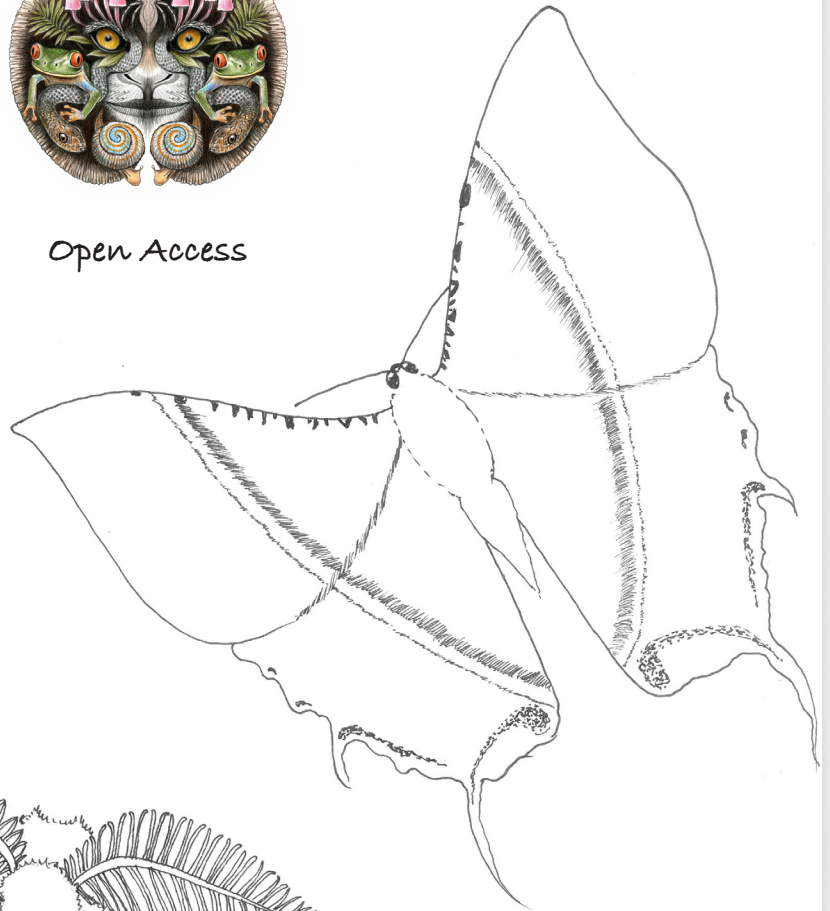
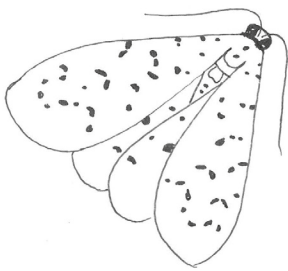


Building evidence for conservation globally

Journal of Threatened Taxa



Open Access



10.11609/jott.2023.15.7.23463-23630
www.threatenedtaxa.org

26 July 2023 (Online & Print)
15(7): 23463-23630
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

43/2 Varadarajulu Nagar, 5th Street West, Ganapathy, Coimbatore, Tamil Nadu 641006, 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),
43/2 Varadarajulu Nagar, 5th Street West, Ganapathy, Coimbatore, Tamil Nadu 641006, India

Deputy Chief Editor

Dr. Neelesh Dahanukar

Noida, Uttar Pradesh, 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

Dr. B.A. Daniel, ZOO/WILD, Coimbatore, Tamil Nadu 641006, India

Editorial Board

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, Mavinahalla PO, Nilgiris, Tamil Nadu 643223, India

Dr. Martin Fisher

Senior Associate Professor, Battcock Centre for Experimental Astrophysics, Cavendish
Laboratory, JJ Thomson Avenue, Cambridge CB3 0HE, UK

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

Mr. P. Ilangoan, Chennai, India

Ms. Sindhura Stothra Bhashyam, Hyderabad, India

Web Development

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

Typesetting

Mrs. Radhika, ZOO, Coimbatore, India

Mrs. Geetha, ZOO, Coimbatore India

Fundraising/Communications

Mrs. Payal B. Molur, Coimbatore, India

Subject Editors 2020–2022

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. Karthikeyan, 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 Banos, 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: Celebrating the unsung heroes—moths, our nocturnal pollinators. © Priyanka Iyer.



Argyreia lawii C.B. Clarke (Convolvulaceae) – an extended distribution record in the Western Ghats of Kerala

A. Raja Rajeswari¹ & M.K. Nisha²

^{1,2}Department of Botany, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, Tamil Nadu 641043, India.

¹forraj98@gmail.com, ²nisha_bot@avinuty.ac.in (corresponding author)

Argyreia Lour. is considered to be one of the largest and complex genus among the family Convolvulaceae. It consists of around 135 taxa (Staples & Traiperm 2017) distributed in southeastern Asia, China, and in the Indian subcontinent. In India, the genus is represented with 40 species and considered to be the second most species abundant genus among Convolvulaceae (Lawand et al. 2019).

During the floristic survey in Attappady area at Palakkad District, Kerala, collected an interesting species of *Argyreia* at a specific location along the way of Thavalam, an area 18 km away from Silent Valley which comes under wet evergreen forest. The specimen was collected with flowers and the identity was confirmed as *A. lawii* by Botanical Survey of India (BSI), Southern Regional Centre (SRC), Coimbatore. The sample specimen was stored in Avinashilingam Institute Herbarium, for further use. While checking for the distribution of the species it is previously known only from Karnataka (Gamble 1922), recently rediscovered from Maharashtra (Lawand et al. 2019) and Shalini et al. (2018) added to the flora of Tamil Nadu. Other than this it is not reported anywhere else in India including Kerala (Kumar et al. 2005; Nayar et al. 2014; Eflorakerala). Hence the present collection from Palakkad District

of Kerala shows the extended distribution of the species and addition to the state flora as well. A short description along with color photographs are provided here to facilitate the future identification and collection (Images 1 & 2).

Argyreia lawii C.B. Clarke in Hook.f., Fl. Brit. India 4: 190. 1883; T. Cooke, Fl. Bombay 2: 327. 1908; Gamble, Fl. Pres. Madras 2: 908. 1922; B.D. Sharma et al., Fl. Karnataka 179. 1984; M.R. Almeida, Fl. Maharashtra 3: 310. 2001; Venakanna & Das in N.P. Singh et al., Fl. Maharashtra 2: 445. 2001; Shalini et al., Indian J. Forest. 41(3): 265–268. 2018.

Description

A semi-woody climber, the stem is strigose, terete, greenish, and herbaceous. Leaves simple, alternate, and elliptic-ovate, 6–10.2 x 3–5.5 cm, base rounded, acute apex, and entire margin. Strigose on both the surface, midrib conspicuous with lateral veins 7–8 pairs. Petiole is about 1.7–3.8 cm, cylindrical, strigose, stout, and wooly. Inflorescence is an axillary cyme compacted with 5–7 flowers, dichotomously branched with one central flower. Peduncle 3–6 cm long, longer than petiole, terete, and less strigose. Flowers sub-sessile, bracteate, whorls slightly strigose, inner whorl narrows than the

Editor: Anonymity requested.

Date of publication: 26 July 2023 (online & print)

Citation: Rajeswari A.R. & M.K. Nisha (2023). *Argyreia lawii* C.B. Clarke (Convolvulaceae) – an extended distribution record in the Western Ghats of Kerala. *Journal of Threatened Taxa* 15(7): 23627–23630. <https://doi.org/10.11609/jott.8196.15.7.23627-23630>

Copyright: © Rajeswari & Nisha 2023. 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 are thankful to the head of office, Botanical Survey of India, Southern Regional Centre, Coimbatore for permitting us to consult the herbaria and library.

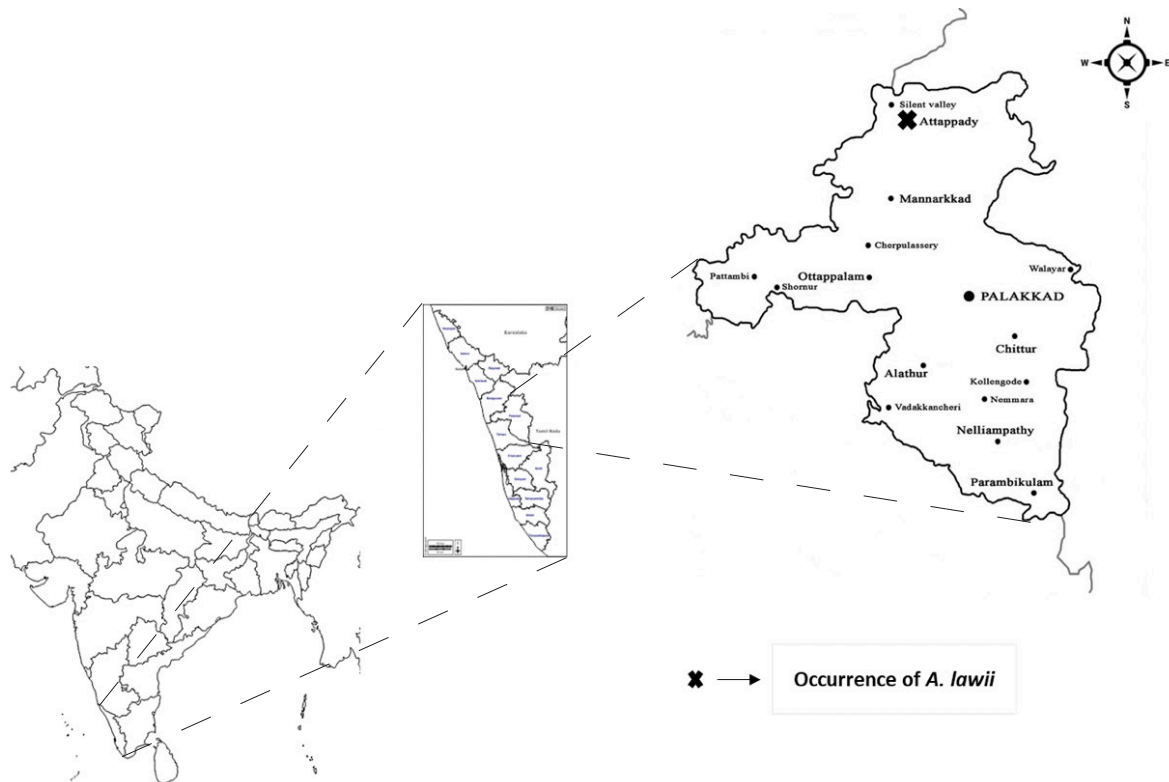


Figure 1. Distribution of *Argyreia lawii* C.B.Clarke in Attappady, Palakkad District, Kerala, India.



Image 1. *Argyreia lawii*: A—Habitat | B—Habit closeup | C—Inflorescence | D—Twig | E—Corolla front view. © A.Raja Rajeswari.

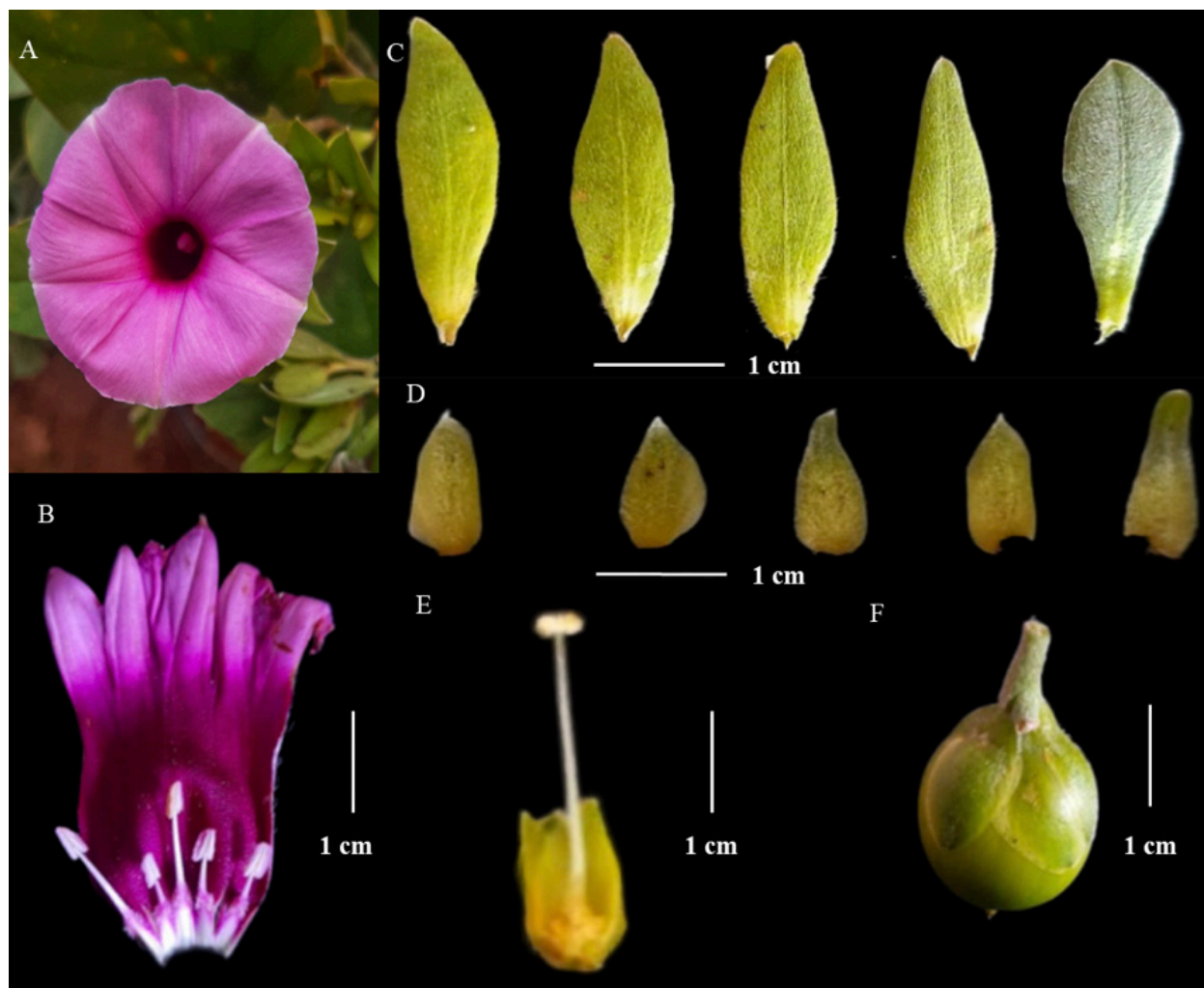


Image 2. *Argyreia lawii*: A—Corolla closeup | B—opened flower | C—Bracts | D—Sepals | E—Gynoecium | F—Fruit. © A.Raja Rajeswari.

outer and oblong. Bracts oblong or elliptical 1–2.7 cm x 0.4–0.8 cm, strigose, outer bracts are wider than the inner ones. Sepals 5, subequal shorter than bracts 8–10 x 5–6 mm, ovate, and acute apex, glabrous to pubescent, gamosepalous. Corolla infundibulum 3.5–4.7 cm x 1.8–2.8, hairy, disc slightly 5-lobed. Stamens 5; filaments 5, unequal, 2 long 1.6–1.8 cm, 3 short 1–1.2 cm, adnate, above the base of the corolla. Ovary conical, glabrous, style, separately dilated, jointed at base longer than filament 1.4–1.9 cm or sometimes unequal. Stigma papillated and bilobed. Fruit is a berry with 5 persistent calyx lobes, young green, when matured yellow.

Flowering and Fruiting: May to August.

Habitat and ecology: Twining shrub along roadside margins of wet evergreen forest at an elevation of 662 m growing in association with species like *Asystasia gangetica* (L.) T.Anderson, *Cardiospermum halicacabum* L., *Causonis trifolia* (L.) Mabb. & J.Wen, *Chromolaena*

odorata (L.) R.M.King & H.Rob., *Justicia adhatoda* L., *Lantana camara* L., *Mesosphaerum suaveolens* (L.) Kuntze, *Mimosa pudica* L., *Oplismenus compositus* (L.) P.Beauv., *Parthenium hysterophorus* L., and *Rotheca serrata* (L.) Steane & Mabb. We could observe 12–15 mature individuals covering the total area that may not exceed 5 km².

Distribution: Karnataka (Western Ghats region, Konkan Province & Bababudhan Hills of Karnataka State), Kerala (Present report – Thavalam, Palakkad District), Maharashtra (Bhudargad Fort & Patgaon, Kolhapur District), and Tamil Nadu (Nilgiris District, Coonoor Ghat).

Specimen examined: India, Kerala, Palakkad District; Thavalam, 13.120°N, 76.591°E, 22.08.2022, A. Raja Rajeswari ARR0001, Avinashilingam Institute Herbarium (Image 3).

Notes: *Argyreia lawii* C.B.Clarke may be facing



Image 3. Herbarium of *Argyreia lawii* [#A Raja Rajeswari ARR0001(TAK014)].

threats due to the widening of road, domination of exotic plants, removal of plants along the road side and cultivated fields by the local community in Thavalam area.

References

- Almeida, M.R. (2001). *Flora of Maharashtra (Rubiaceae to Ehretiaceae)*. Volume 3a. St. Xavier's College, Mumbai.
- Clarke, C.B. (1883). Convolvulaceae. In: Hooker, J.D. (ed.) *Flora of British India: Vol. 4*. L. Reeve and Co., London, 190 pp.
- Cooke, T. (1908). *Flora of the Presidency of Bombay Vol. 2*. Taylor and Francis, London, 257 pp.
- Eflorakerala. <https://www.eflorakerala.com> - Genus. Accessed on 10 January 2023.
- Gamble, J.S. (1922). *Flora of the Presidency of Madras*. Part V. (Rep. 2004). Bishen Singh Mahendra Pal Singh, Dehradun.
- Kumar, N.A., M. Sivadasan & N. Ravi (2005). *Flora of Pathanamthitta (Western Ghats, Kerala, India)*. Daya Publishing House, Delhi.
- Lawand, P.R., R.V. Gurav & V.B. Shimpale (2019). Rediscovery, after over a century, of the endemic climbing vine *Argyreia lawii* (Convolvulaceae) from the Western Ghats of India. *Journal of Threatened Taxa* 11(14): 14917–14920. <https://doi.org/10.11609/jot.4419.11.14.14917-14920>
- Nayar, T.S., A.R. Beegam & M. Sibi (2014). *Flowering plants of The Western Ghats India*. Tropical Botanic Garden and Research Institute, Thiruvananthapuram. Convolvulaceae.
- Shalini, S., P. Lakshminarasimhan & D. Maity (2018). *Argyreia lawii* (Convolvulaceae), an addition to the flora of Tamil Nadu. *Indian Journal of Forestry* 41(3): 265–268.
- Sharma, B.D. (1984). *Flora of Karnataka*. Botanical Survey of India, Calcutta.
- Staples, G. & P. Traiperm (2017). A nomenclatural review of *Argyreia* (Convolvulaceae). *Taxon* 66(2): 445–477.
- Venkanna, P. & S.K. Das (2001). Convolvulaceae, pp. 439–448. In: Singh, N.P., P. Lakshminarasimhan, S. Karthikeyan & P.V. Prasanna (eds.). *Flora of Maharashtra State*. Volume 2. Botanical Survey of India, Kolkata.

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
Dr. 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 W. 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. Neelesh Dahanukar, IISER, Pune, Maharashtra, India
Dr. Topiltzin Contreras MacBeath, Universidad Autónoma del estado de Morelos, México
Dr. Heok Hee Ng, National University of Singapore, Science Drive, Singapore
Dr. Rajeev 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 Vyas, Vadodara, Gujarat, India
Dr. Pritpal S. Soorae, Environment Agency, Abu Dubai, 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, Chennai Snake Park, Chennai, Tamil Nadu, India
Dr. Himansu Sekhar Das, Terrestrial & Marine Biodiversity, Abu Dhabi, UAE

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

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, The American College, Madurai, 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 2020–2022

Due to pausity of space, the list of reviewers for 2018–2020 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.

Print copies of the Journal are available at cost. Write to:
The Managing Editor, JoTT,
c/o Wildlife Information Liaison Development Society,
43/2 Varadarajulu Nagar, 5th Street West, Ganapathy, Coimbatore,
Tamil Nadu 641006, India
ravi@threatenedtaxa.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)

July 2023 | Vol. 15 | No. 7 | Pages: 23463–23630

Date of Publication: 26 July 2023 (Online & Print)

DOI: 10.11609/jott.2023.15.7.23463-23630

www.threatenedtaxa.org

Articles

Predicting suitable habitat for the endangered Javan Gibbon in a submontane forest in Indonesia

– Rahayu Oktaviani, Amaël Borzée, Andi Nugraha Cahyana, Susan Lappan, Ani Mardiasuti & Misbah Satria Giri, Pp. 23463–23471

Babesa Sewage Treatment Plant as a vital artificial wetland habitat for a multitude of avian species

– Pelden Nima, Mahendra Timsina, Tenzin Jamtsho & Pema Khandu, Pp. 23472–23486

Communications

Proximate nutrients of selected forage and the diet composition of adult elephants in Udawalawe National Park, Sri Lanka, a preliminary study

– I.V. Dinithi Hemachandra, C. Dilrukshi Wijayarathna & P. Nihal Dayawansa, Pp. 23487–23498

Does small mammal species richness have a bimodal elevation gradient in Sikkim Himalaya?

– Sunita Khatiwara, Joya Thapa & Ajith Kumar, Pp. 23499–23506

Re-sighting record of Kelaart's Pipistrelle *Pipistrellus ceylonicus* (Kelaart, 1852) (Mammalia: Chiroptera: Vespertilionidae) from Rajasthan, India

– Dharmendra Khandal, Dau Lal Bohra & Shyamkant S. Talmale, Pp. 23507–23513

An assessment of the diet of Brown Fish-Owl *Ketupa zeylonensis* (J.F. Gmelin, 1788) (Aves: Strigiformes: Strigidae) from two localities in the foothills of the Western Ghats of Goa, India

– Stephen Jonah Dias & Atul Sinai Borker, Pp. 23514–23520

Tree cover and built-up area regulate the territory size in Eurasian Magpie *Pica pica* in Ladakh, India

– Iqbal Ali Khan, Anil Kumar, Dinesh Bhatt & Prakhar Rawal, Pp. 23521–23528

Birds of Kanetiya area - inventory, notable sightings, and overview of seasonal changes in reporting frequency of bird species in an unprotected area of Himachal Pradesh, India

– Samakshi Tiwari, Pp. 23529–23544

A preliminary assessment of Odonata (dragonflies & damselflies) across an elevation gradient – insights from Shiwaliks to Alpines, northwestern Himalaya, India

– Neeraj Sharma, Dinesh Singh, Shakha Sharma & Ajaz Ansari Pp. 23545–23556

Checklist of soil nematode diversity from Udupi District, Karnataka, India

– M.V. Keshava Murthy & A. Shwetha, Pp. 23557–23566

Checklist of the genus *Dendrobium* Sw. (Orchidaceae) in Manipur, India

– Hidangmayum Bishwajit Sharma & Debjyoti Bhattacharyya, Pp. 23567–23574

Status of macrofungal diversity in the wet evergreen forests of Agasthyamala Biosphere Reserve, Western Ghats, India

– Kurunna Kandy Akshaya, Arumugam Karthikeyan & Cheravengat Kunhikannan, Pp. 23575–23586

Developing a fast, reproducible, and simple protocol for virtual lichen herbarium using barcoding and QR code techniques

– S. Jeya Preethi & P. Ponmurugan, Pp. 23587–23595

Short Communications

Population status of Oriental Darter *Anhinga melanogaster* Pennant, 1769 (Aves: Suliformes: Anhingidae) in Keoladeo National Park, India

– Neha Imtiyaz & Satish Kumar, Pp. 23596–23600

Breeding of Himalayan Vulture *Gyps himalayensis* Hume, 1869 (Aves: Accipitriformes: Accipitridae) in the Assam State Zoo, Guwahati, Assam, India

– Sachin Ranade, Jay Gore & Ashwini Kumar, Pp. 23601–23605

Notes

Unusual foraging behaviour of the Bengal Slow Loris *Nycticebus bengalensis* (Lacépède, 1800) (Mammalia: Primates: Lorisidae) in the Shan Highlands, Myanmar

– Sai Sein Lin Oo, Khun Aung Naing Oo & Paul Jeremy James Bates, Pp. 23606–23609

Powerline pylons: an unusual nesting success of White-bellied Sea-Eagle *Haliaeetus leucogaster* (Gmelin, 1788) (Aves: Accipitriformes: Accipitridae) from Ramanathapuram, southeastern coast of India

– H. Byju, N. Raveendran & A.J. Mathiyazhagan, Pp. 23610–23614

First record of Horned Grebe *Podiceps auritus* (Linnaeus, 1758) (Aves: Passeriformes: Podicipedidae) from Jammu & Kashmir, India

– Bilal Nasir Zargar, Umer Nazir & Zakir Hussain Najjar, Pp. 23615–23617

First photographic record of White Royal *Tajuria illurgis illurgis* (Hewitson, [1869]) (Insecta: Lepidoptera: Lycaenidae) from Arunachal Pradesh, India

– Ruksha Limbu, Roshan Upadhaya, Renu Gogoi & Jyoti Gaur, Pp. 23618–23620

Preliminary observations of moth fauna of Purna Wildlife Sanctuary, Gujarat, India

– Preeti Choudhary & Indu Sharma, Pp. 23621–23626

Argyreia lawii C.B. Clarke (Convolvulaceae) – an extended distribution record in the Western Ghats of Kerala

– A. Raja Rajeswari & M.K. Nisha, Pp. 23627–23630

Publisher & Host

