

Ramya Roopa .S.

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[Email](#) | [Google Scholar](#) | [GitHub](#)

Education

Erasmus Mundus-International Master in Applied Ecology **2016 - 2018**

Federal University of Rio Grande do Sul, Brazil (third and fourth semester)

University of Coimbra, Portugal (second semester)

University of Poitiers, France (first semester)

Thesis: Occupancy and habitat associations of the endangered sand lizard *Liolaemus arambarensis* in the Restingas of southern Brazil

Supervisors: Prof. Laura Verrastro and Prof. Márcio Borges-Martins

GPA: 4.65/5

Bachelor of Science in Environmental Science **2012 - 2015**

Fergusson College (affiliated to Savitribai Phule Pune University), Pune

Score (three-year total): 83.06 %

Work Experience

Data Analyst and Lead, Freshwater Turtle Research **July, 2022 – Present** **Riverine Ecosystems and Livelihoods Programme, Wildlife Conservation Trust**

- Lead and conduct ecological surveys of freshwater turtles using non-invasive genetic methods and unmanned aerial vehicles
- Analyze long-term trends in occupancy and abundance of endangered riverine fauna at local and regional scales
- Conduct spatio-temporal analysis of river morphology, riparian land use and climate data, using Google Earth Engine, QGIS and R
- Develop web applications and dashboards for visualization of long-term hydrological and ecological data using R Shiny and Google Earth Engine. Example apps [here](#) and [here](#)
- Conduct workshops on data management and analysis tools for field team and forest department; mentor interns and students working with the programme

Co-Lead, Analyst Team **July, 2020 - June, 2022** **Counter Wildlife Trafficking Programme, Wildlife Conservation Society (WCS) - India**

- Co-lead collection of wildlife crime data, analysis (using social network analysis and qualitative crime intelligence frameworks) and dissemination of intelligence reports for law enforcement agencies; collaborated with WCS teams of Southeast Asia and China on specific research reports
- Mentored researchers from the monitoring and evaluation, and legal teams of the Counter Wildlife Trafficking Programme, in developing research projects, policy documents and technical reports
- Collaborated with data science and tech organizations, and developed proposals to automate parts of the data collection pipeline

Analyst **May, 2019 - June, 2020** **Counter Wildlife Trafficking Programme, Wildlife Conservation Society-India**

- Collected and analysed primary and secondary wildlife crime data to produce intelligence reports for law enforcement agencies
- Developed training content for law enforcement agencies

Research Project on Aquatic Insects Kalinga Foundation, Agumbe, India

2015 - 2016

- Conducted a research project to evaluate the use of aquatic insects as bio-indicators of stream ecosystem health (**funded by World Wide Fund for Nature (WWF), India Small Grants Programme**)
- Submitted regular reports to Kalinga Foundation, the funding agency and the forest department
- Mentored volunteers and interns and presented research findings to campers and visitors to the field station
- Designed posters on identification and life cycle of aquatic insects

Peer-Reviewed Publications

Ramya Roopa, S., Brack, I.V, Freire, M.D., Santos, V., da Silva Menezes, L., Martins, M.B., & Verrastro, L. Trees, grass and sand grain size influence the occupancy of an endangered and endemic sand lizard (*Liolaemus arambarensis*) of southern Brazil. *In Review*.

Ramya Roopa, S., Chaudhuri, A., Dey, S., & Mendiratta, U. (2024). Calipee trade: a pervasive yet under-recognized threat to softshell turtles in South Asia. *Chelonian Conservation and Biology*, 23(2), 153–160. <https://doi.org/10.2744/CCB-1636.1>

Ramya Roopa, S., Mendis, A., Sultan, N., Shukla, S., Chaudhuri, A., & Mendiratta, U. (2024). From pets to plates: network analysis of trafficking in tortoises and freshwater turtles representing different types of demand. *Oryx*, 58(1), 78–89. <https://doi.org/10.1017/S0030605323000376>

Aditya, V., Goswami, R., Mendis, A., & **Ramya Roopa, S.** (2021). Scale of the issue: Mapping the impact of the COVID-19 lockdown on pangolin trade across India. *Biological Conservation*, 257, 109136. <https://doi.org/10.1016/j.biocon.2021.109136>

Sagar, H. S. S. C., Mabano, A., **Ramya Roopa, S.**, Sharmin, M., Richard, F.J., & Clause, J. (2019). India in the Oil Palm Era: Describing India's Dependence on Palm Oil, Recommendations for Sustainable Production, and Opportunities to Become an Influential Consumer. *Tropical Conservation Science*, 12. <https://doi.org/10.1177/1940082919838918>

Ramya Roopa, S., Selvakumar, C., Subramanian, K. A., & Sivaramakrishnan, K. G. (2017). A new species of *Prosopistoma* Latreille, 1833 and redescription of *P. indicum* Peters, 1967 (Ephemeroptera: Prosopistomatidae) from the Western Ghats, India. *Zootaxa*, 4242(3), 591-599. <https://doi.org/10.11646/zootaxa.4242.3.10>

Technical Reports and Preprints

Ramya Roopa, S. & Kelkar, N. (2024). FLOWIDER 1.0: a web-based interface to track flood-season water levels of large rivers of India's Gangetic plains. *EarthArxiv*. <https://doi.org/10.31223/X5NM41>

Mendis, A., Nikita, V.M., **Ramya Roopa, S.**, Sultan, N., Shukla, S., Lewis, R., Deshpande, K., Balaji, K., Karve, A., & Mendiratta, U. (2021). Media-reported wildlife poaching and illegal trade in India: 2020. *Wildlife Conservation Society-India Report*. <https://doi.org/10.19121/2021.Report.40773>

Conference Presentations and Invited Talks

- **Ramya Roopa, S.**, Mendis, A., Sultan, N., Shukla, S., Chaudhuri, A., & Mendiratta, U. (2023). Dissecting illegal turtle trade in India: Network analysis reveals differences in patterns of illegal trade according to type of demand. *Association for Tropical Biology and Conservation (ATBC) Annual Meeting, Coimbatore, India (Received ATBC Global Support Grant)*

- **Ramya Roopa, S.,** Mendis, A., Sultan, N., Shukla, S., Chaudhuri, A., & Mendiratta, U. (2021). Where did the turtles go? A network approach towards identifying key nodes in the trafficking of Indian star tortoises and softshell turtles. *International Congress for Conservation Biology* (online)
- **Ramya Roopa, S.** (2020). Piecing it together: Understanding Wildlife Crime through Open-Source Intelligence (OSINT). *Kalinga Centre for Rainforest Ecology* (online)
- **Ramya Roopa, S.,** & Mendis, A. (2019). Connecting the Dots: Counter Wildlife Trafficking using AI. *AI for Social Good, Google Research, India*

Popular Articles

Ramya Roopa, S. (2021). Of Pets, Delicacies and Calipee. *Planet Untamed*, 2.2, 38-43.

https://www.planetuntamed.asia/files/ugd/a9a8d0_69d1a9d9cb124e12aed355d536d4e7d4.pdf

Ramya Roopa, S., & Mendis, A. (2019). Under Cover: Orange-bellied Leafbirds as Pets in Nongriat Village, Meghalaya. *Conservation India*.

<https://www.conservationindia.org/gallery/under-cover-orange-bellied-leafbirds-as-pets-in-nongriat-village-meghalaya>

Service and Professional Memberships

- **Journal Reviewer:** *Oryx, Chelonian Conservation and Biology*
- Member of the Ecological Society of America (ESA) (2024 - Present)
- Member of the International Association for Vegetation Science (IAVS) (2024 - 2027)
- Member of the Association for Tropical Biology and Conservation (ATBC) (2023 - 2024)
- Member of the Society for Open, Reliable, and Transparent Ecology and Evolutionary Biology (SORTEE) (2023 - 2024)
- Member of The Netherlands Society for Statistics and Operations Research (VVSOR) (2021 - Present)

Skills

- **Statistical analysis:** R (hierarchical models; Bayesian statistics; generalized linear/linear mixed models; non-linear regressions; time-series analysis; social network analysis); NetLogo (agent-based modelling); IBM's i2 (social network analysis)
- **Web application development:** R (using shiny) and Google Earth Engine
- **GIS and geospatial analysis:** Google Earth Engine and QGIS
- **Trained drone pilot** (category: rotorcraft, sub-category: remotely piloted aircraft systems)
- **Languages:**
 - English: TOEFL score: 116/120 (Reading: 29, Listening: 30; Speaking: 30, Writing: 27)
 - Portuguese: Basic written and spoken
 - Hindi: Written and spoken
 - Tamil: Native