

Karthikeyan Vasudevan

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DOB: 23rd June 1972

Profile:

- Execute ecological studies focusing on endangered species; provide leadership in species conservation and ecosystem preservation
- Subject specialization: conservation biology, community ecology, disease ecology, population ecology, macroecology, biogeography, taxonomy and systematics of south Asian amphibians and reptiles

Education

Ph.D., Doctoral degree in Zoology, June 2001- **Utkal University, India.**

M.Sc., Master's degree in Applied Animal Behaviour and Animal Welfare, November 1995 - **University of Edinburgh, United Kingdom.**

M.Sc., Master's degree in Zoology, June 1994 - **Annamalai University, India**

B.Sc., Bachelor's degree in Zoology, May 1992 - **Loyola College, Madras University, India**

Employment History

Chief Scientist (Group Leader) at Laboratory for Conservation of Endangered Species, Centre for Cellular and Molecular Biology (CCMB), Hyderabad - *November 2018 till present.*

Senior Principal Scientist (Group Leader) at Laboratory for Conservation of Endangered Species, Centre for Cellular and Molecular Biology (CCMB), Hyderabad – from *November 2013*

Scientist E(2) at the Department of Animal Ecology and Conservation Biology, Wildlife Institute of India (WII), Dehradun - *1999-2013.*

Academics: Research, Teaching and Training

- **PhD mentor**, 21 years of teaching and mentoring PhD students. 15 students enrolled; 6 of them awarded. These students have been the engines of the lab, ideating, designing and performing experiments, and addressing important problems in biological conservation. They have authored several papers as part of their engagement in research, and many of them continue to perform well in different streams.
- **PG students' mentor**, 23 years of teaching post-graduate students and mid-career professionals, forest managers: in conservation biology; species concepts; community ecology; biogeography; behavioural ecology; experimental design and null models in community ecology studies; amphibian evolution and radiation; herpetology; systematics and taxonomy; conservation ethics.
- **M.Sc. dissertation supervisor**, 27 M.Sc. dissertations that span for 4-6 months with students performing projects in the field and lab and training them to carry out independent research. These projects have engaged students in challenging projects and have resulted in peer-reviewed publications. 75% of the students have taken up research careers and pursued wildlife biology.
- **Postgraduate Teaching Experience**: 18 years teaching experience in short term courses (3-9 months) for Indian Forest Service officers, Field level officers from different parts of south Asia, including Sri Lanka, Nepal, Bhutan, Bangladesh, Pakistan, Afghanistan, Vietnam, Malaysia and Cambodia; developing training modules both field based and classroom based, and executing them in different settings.
- **Academic administration**, 17 years – 8 years of involvement in administering Master's course in Wildlife Science at WII: Formulation of syllabus; planning and execution of course elements; 6 years' worth of inputs in organizing short courses involving participants with different backgrounds and bringing a diverse group of experts to conduct such courses; Academic Coordinator, 8 years' experience in course formulation, delivery and facilitation of academic program at CCMB.

Professional Affiliations and Services

- Member, Central Zoo Authority, Government of India for a period of three years from 30th June 2020.
- International Society for Study and Conservation of Amphibians – ISSCA: Honorary President.
- Regional Chair for South Asia from November 2017, of the IUCN-Amphibian Species Specialist Group (three-year appointment). Facilitated Redlist Assessments for amphibians in 2007 and 2020. Contributor to IUCN's Amphibian

Conservation Action Plan 2020.

- Honorary President of International Society for the Study and Conservation of Amphibians, Natural History Museum, Paris.
- Editorial Board member, Journal of Bombay Natural History, India
- Member Invasive Alien Species task force at the National Biodiversity Authority, Chennai, India.
- Member State Wildlife Board, Telangana
- Member Zoo Authority of Telangana
- Member of Advisory Board of WWF –India, AP and Telangana
- Member of Research Council of Maharashtra Animal & Fishery Science University, Nagpur
- Member Biosafety Committee – ICAR-National Bureau of Agricultural Insect Resources, Bengaluru
- Member Research Advisory Council MFASU, Nagpur, Maharashtra
- Member expert committee for Vision Plan for Zoos, Central Zoo Authority, New Delhi
- Member expert committee National Referral Centre for Wildlife, Central Zoo Authority, New Delhi
- Member of Subcommittee under Empowered Committee for Animal Health (ECAH), Ministry of Fisheries, Animal Husbandry, Dairying
- Cast – “On the Brink: Purple Frog” made by HCL and broadcasted in Discovery Channel.
- Taxon group expert for snakes in the Animal Committee of the Ministry of Environment and Forests related to Convention on International Trade related to Endangered Species of wild fauna and flora CITES.
- Served as expert Committee Member, Department of Biotechnology, Committee for promotion of need based projects in the North Eastern Region, India.
- Served as expert Member, Committee on Biodiversity Heritage Sites, at National Biodiversity Authority, Chennai, India.
- Served as expert Member, Supreme Court Empowered Committee to examine the impact of iron-ore mining in Bellary, Tumkur Districts, Karnataka in 2012
- Reviewer of Journals: Conservation Biology, J. Applied Ecology, J. Biogeography, Biological Conservation, Herpetologica, J. Herpetology, ZooTaxa, Current Science, Tropical Ecology, Biotropica, Molecular Ecology Resources
- Reviewer of proposals: International Foundation for Science; Department of Science and Technology; Department of Biotechnology, Ministry of Science and Technology, Government of India; Ministry of Environment and Forests, Government of India; Students Conference of Conservation Science, Bangalore; Narendra Babu Ecological Research Grant, Bangalore, India
- Evolutionarily Distinct and Globally Endangered (EDGE) species program member – EDGE Fellow
- Examiner: MSc Wildlife Biology and Conservation, National Centre for Biological Sciences, Bangalore, India; PhD, Forest Research Institute University, Dehradun, India; AcSIR Professor and Academic Committee Member, CSIR-CCMB
- Member of the Planning Committee and Core faculty of School in Herpetology, a training programme supported by the Department of Science and Technology, Science and Engineering Board.
- Research Advisory Council Member, Doon Library and Research Centre, Dehradun, India.
- Advisory role in Western Ghats and Eastern Ghats Expert Group – Ministry of Environment and Forests
- Advisory role in executing projects and other field activities with State Forest Departments of Jammu and Kashmir, Karnataka and Kerala.
- Scientific advisor: "Anamalai: India's Elephant Mountain." 60-minute movie. Production: Icon Films; ABC/Kane in 2000
- Trustee, Vasavi Trust since 1994-2022: Functionary for providing education to the under-privileged and imparting environmental awareness to school children.
- Life Member, Bombay Natural History Society, Mumbai, India.

Awards/Grants

- **November 2022:** CSIR-Ecology, Environment, Energy and Ocean Theme Fast Translational Technology project – Developing DNA based technology for diagnosis of contaminants in Pashmina weaving industry. Rs.16.4 million
- **September 2022:** CSIR-Major Lab Project: Discerning the Eastern Ghats for Conservation outcomes. Rs.94.8 million
- **December 2018:** National Mission for Himalaya (NMHS) – “Improving capacity and strengthening wildlife conservation for sustainable livelihoods in Kashmir Himalaya”. Rs. 34 million
- **August 2018:** Develop novel DNA based identification system of Plant bioresources (both agri and wild varieties grown/harvested) for conservation. Rs 14.6 million.
- **May 2018:** Central Zoo Authority, New Delhi – “Conservation of endangered animals based on genetic polymorphism and assisted reproduction”. Rs. 2 million
- **May 2017:** Indo-US 21st Century Knowledge Initiative travel support under faculty exchange program at Colorado State University, Fort Collins, USA.
- **14 November 2016:** INSA-IUBS travel support for participation in Conference of Parties 13 Convention for Biological Diversity 1-4 December 2017, Cancun, Mexico.
- **November 2013:** XII Five-year plan project funding Rs.50 lacs for “Prevalence of Chytridiomycosis in India amphibian populations”.
- **October 2013:** DBT grant for project titled “Characterizing anuran species as indicators of environmental quality in human dominated landscapes “BT/PR5070/BCE/8/906/2012; dt. 25/10/2013 for Rs. 63,70,300.00

- **February 2013:** Invited Professor at Department of Systematics and Evolution in the research unit UMR 7205 OSEB with Prof. Alain Dubois and Prof. Annemarie Ohler.
- **30 May 2012:** Mohammad Bin Zayed Species Conservation Fund support of US\$5000 for carrying out study on the impact of invasive chital (*Axis axis*) on native herpetofauna of Andaman Islands.
- **28 May 2010:** International Travel Support grant, Department of Science and Technology, Government of India. Participation in conference and workshop on “Emerging Amphibian Diseases” Townsville, Australia, 23 June to 3 July 2010.
- **3-14 November 2009:** Expert workshop on Nomination and Management of Serial and Transitional Natural Heritage Sites, Isle of Vilm, Germany. Visiting Scientist at the Herpetological collections, Hamburg University Museum, Hamburg, Germany. Sponsored by the German Federal Agency for Nature Conservation (BfN) with its International Academy for Nature Conservation in collaboration with IUCN; and Hamburg University Museum, Hamburg, Germany.
- **20 October 2009:** “Macroecology of terrestrial herpetofauna in Andaman and Nicobar Archipelago” Department of Science and Technology – PAC for Life Sciences Grant SR/SO/AS-08/2009 Rs. 34.92 lakhs for four years.
- **September 2009:** Volkswagen Foundation International Travel Grant: Participation in the Sundaland Amphibian Biology Conference, University of Malaysia, Sarawak, Malaysia - €570.
- **July 2007:** Barcoding anurans of India, Department of Biotechnology grant BT/PR8354/NDB/ 51/141/2006 Rs. 17.56 lakhs for three years.
- **September 2007:** International Congress on Advances in Zoo and Wild Animal Health and Management and Symposium on Impact of diseases on conservation of wildlife, Sher-e-Karshmir University of Agricultural Sciences & Technology, Jammu, India. Best Poster Presentation Award.
- **October 2005:** Survey of biological diversity in Kudremukh Wildlife Division, Karnataka State Forest Department grant PS PCCF.WL.CR 13/2005-06.
- **October 2003:** Ministry of Science & Technology, Department of Biotechnology grant BT/PR3788/BCE/08/260/2003 Rs. 11.95 lakhs for three years.
- **September 2003:** Ministry of Environment and Forests, Government of India Grant in aid for research Rs. 8.00 lakhs for five years.
- **August 2002:** Ministry of Environment and Forests, Government of India Grant in aid for research Rs. 3.18 lakhs for two years.
- **May 2002:** DAPTF seed grant US\$500 for survey of amphibians in Zaskar valley, Jammu and Kashmir.
- **June 1998:** Travel grant from the U.S. Fish and Wildlife Service to visit the USA for training in natural sound recording CNSL Ithaca, visit to the Field Museum of Natural History, Chicago and technical discussions with experts.
- **September 1997, 98 and 99:** Best presentation award. Annual Research Seminar, Wildlife Institute of India, Dehradun.
- **June 1997:** Student travel grant. International Symposium on the biology and conservation of south Asian reptiles and Amphibians, Kandy, Sri Lanka.
- **January 1996:** Junior/Senior Research Fellowship at the Wildlife Institute of India, Dehradun.
- **September 1994:** Overseas Studentship awarded by Royal Society for Prevention of Cruelty to Animals, United Kingdom to attend MSc course at University of Edinburgh, United Kingdom.
- **December 1994:** Junior Research Fellowship awarded by the Council for Scientific and Industrial Research, India.
- **June 1992:** Fellowship awarded by the World Wide Fund for Nature-India under the ‘Conservation Corps Volunteer’ programme to conduct study on freshwater turtles at Uttar Pradesh, India.

Reports and Articles

- Kaya Klop-Toker and K. Vasudevan. 2023. The world’s worst animal disease is killing frogs worldwide. A testing breakthrough could help save them.
<https://theconversation.com/the-worlds-worst-animal-disease-is-killing-frogs-worldwide-a-testing-breakthrough-could-help-save-them-205872>
- Karthikeyan V. 2018. Merveilleux batraciens! Festschrift on the occasion of Alain Dubois’ 70th birthday – Foreword. *Alytes*, 36 (1–4): 3–4.
- Meena, V., Karthikeyan V, and V.B. Mathur. 2014. Vital, Vast and Valued: The Western Ghats of India. In *Challenges of Serial Nominations. Context: Built, Living and Natural Volume X(ii)*: 69-76.
- Karthikeyan V. 2013. Jewelled Islands. *Sanctuary Asia* Vol. XXXIII No. 3. June 2013.
- Eluvathingal, L.M. and Karthikeyan V. (in press for 2013) "Northwestern and Southwestern Ghats Montane Rainforest" in *Biomes and Ecosystems: An Encyclopedia* Ed. R.W. Howarth
- Karthikeyan V. 2012. Frogs boom, but bite the dust. *Froglog* 105: 61.
- Chandramouli, S.R., S. Harikrishnan, Karthikeyan V. 2011. Little known endemic frogs of the Andaman Islands. *Froglog* 98, 16-17.
- Karthikeyan V and V. Deepak 2010. Quaint turtle in a gigantic forest. *Hornbill* July-September 2010.
- Karthikeyan V and V. Deepak. 2008. Field studies on the ecology of endemic turtles. *Turtle and Tortoise Newsletter* 12: 14-16.
- B.C. Choudhury and Karthikeyan V. 2008. Freshwater turtles and tortoises of India, pictorial poster for identification of species and highlighting threats to species. In collaboration with TRAFFIC-India and WWF India.

- Karthikeyan V, M. Singh, V.R. Singh, M.S. Chaitra, R.S. Naniwadekar, V. Deepak and N. Swapna. 2006. Survey of biological diversity in Kudremukh Forest Complex. Karnataka Forest Department report, 60 p.
- Karthikeyan V. 2004. Biodiversity Informatics: a new frontier and a new challenge. WII Newsletter, Winter 11(4):10.
- Karthikeyan V. 2004. Designing amphibian population monitoring protocol. Frogleg Newsletter of the DAPTF South Asia. August 9, 2004.
- Karthikeyan V. 2004. Johnsingh's natural history at its best. Book review of On the Corbett's Trail and other stories by Dr. A.J.T. Johnsingh. Permanent Black, New. Delhi. WII Newsletter, Autumn 11(3):11.
- Karthikeyan V and M.S. Chaitra 2004. On the proliferation of species through degeneration of taxonomic thought. Wildlife Institute of India, Newsletter, Spring 11(1):8-10.
- Karthikeyan V. 2003. A report on the survey of rainforest fragments for amphibian diversity in Kerala. ENIVS Bulletin-Rainforest Special Issue, vol 4 (1): chapter 19.
- A. Kumar, Ravi Chellam, B.C. Choudhury, D. Mudappa, Karthikeyan V, N.M. Ishwar and B.R. Noon. 2002. Impact of rainforest fragmentation on small mammals and herpetofauna in the Western Ghats, south India. Final Technical Report. Wildlife Institute of India publications, vii+iii+146p.
- Karthikeyan V. 2002. A patchwork forest. Sanctuary Asia XXII(3): 52-59.
- Karthikeyan V., S.P. Vijaykumar, and B.C. Choudhury 2002. Declining amphibians in Ladakh: evidence and hypotheses on causal factors. Frogleg – Newsletter of the South Asian Amphibian Network 10:1-2.
- A. Kumar, Ravi Chellam, B.C. Choudhury, D. Mudappa, Karthikeyan V, N.M. Ishwar and B. Noon. 2001. Impact of rainforest fragmentation on small mammals and herpetofauna in the Western Ghats, south India. A summary of research findings. Wildlife Institute of India publications 26 p + 3 appendices.
- Karthikeyan V, N.M. Ishwar & S.U. Saravanakumar 2000. Living Treasure, pictorial poster highlighting the herpetofaunal diversity in the Western Ghats.
- Karthikeyan V, and A.J.T. Johnsingh 2000. Rainforests, a fragmented story – The Kudremukh Experience. Wildlife Institute of India Newsletter 7(3&4): 11.
- Karthikeyan V. 1998. Stream amphibian assemblages in the rainforests of Kalakkad Mundanthurai Tiger Reserve, southern India. Frogleg 2(2): 1

Language Skills

Fluent in Tamil, English, Hindi and Kannada