

# Short Course on Research Design for Field Biologists

Organized by the

UNIT OF EXCELLENCE IN BIODIVERSITY, BOARD OF STUDY IN PLANT SCIENCES  
POSTGRADUATE INSTITUTE OF SCIENCE (PGIS)  
UNIVERSITY OF PERADENIYA, SRI LANKA

in collaboration with the

DEPARTMENT OF WILDLIFE ECOLOGY AND CONSERVATION  
UNIVERSITY OF FLORIDA, USA

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WHERE:	PGIS, University of Peradeniya, Sri Lanka
WHEN:	19 <sup>th</sup> – 24 <sup>th</sup> May 2025
FOR:	Postgraduate Students/Professionals/Researchers/Academics in Field Biology

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**Course Overview:** Field biologists have to be better at science than anyone else, because their task is to understand the nature of the world's natural resources – patterns, processes, and trajectories of change in biodiversity and its supporting ecosystems. This course will give students clear guidance in designing and conducting field research that will be both rigorous and scientifically sound while, at the same time, providing immediately useful information and guidance to conservationists engaged in management, planning and policy formulation. Course dynamics include lectures, discussions, group exercises, readings, student presentations, field practicum and computer exercises.

**Learning Objectives:** Students will become familiar with: (1) Identifying conservation needs (inventory, management, prediction, education); (2) Achieving appropriate scientific inference to satisfy conservation needs (descriptive, causal, predictive, explanatory, and statistical inference); (3) Understanding of the major field research design types (descriptive, comparative, quasi- and true-experimental, and case study designs); (4) Applying hypothetical deductive frameworks to make research designs fool-proof; (5) Understanding key sampling design principles to maximize accuracy and precision of research findings; (6) Understanding of how to identify appropriate statistical analyses for planned studies. A Course Guide will be provided for all participants.

**Who Should Enroll:** Postgraduate students who are early in their programs, and practicing professionals/researchers/academics in conservation and other biological sciences seeking skills in rigorous research design. Final year undergraduates can also apply.

**Number of Participants:** 20-25 (number of foreign participants limited to 5-6)

**Course Fee** (Includes a course guide, lunch, tea & refreshments):

	Students (local)/Rs.	Others (local) /Rs.	Students (foreign)/ USD
Before 30 <sup>th</sup> April 2025	12,000/-	20,000/-	400/-
After 30 <sup>th</sup> April 2025	15,000/-	25,000/-	450/-

**Resource Persons:** Prof. Kathryn Sieving (Department of Wildlife Ecology & Conservation, University of Florida <https://wec.ifas.ufl.edu/people/wec-faculty/kathryn-sieving/>); Prof. Fangyuan Hua, (Institute of Ecology, Peking University (<https://www.conservationee.org/people>)); Prof. Gehan Jayasuriya (Department of Botany, University of Peradeniya <https://sci.pdn.ac.lk/botany/staff/Gehan-Jayasuriya>); Dr. Nilmini Jayasena (Department of Basic Veterinary Sciences, University of Peradeniya <https://vet.pdn.ac.lk/staff/Nilmini-Jayasena.php>); Suyash Sawant and Po-An Chen (PhD students, University of Florida, <https://wec.ifas.ufl.edu/people/wec-faculty/kathryn-sieving/>)

**Application Procedure:** Application forms are available on the PGIS website ([www.pgis.lk](http://www.pgis.lk)) as a Google Form.

For details, please contact the **Short Course Coordinators:**

**Dr. Nilmini Jayasena**, Department of Basic Veterinary Sciences, University of Peradeniya  
(Email: [nilminijayasena@vet.pdn.ac.lk](mailto:nilminijayasena@vet.pdn.ac.lk), Tel: 081-2395802)

**Prof. Gehan Jayasuriya**, Department of Botany, University of Peradeniya  
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**Deadline for Applications:** 21<sup>st</sup> April 2025 (Selected participants will be notified via email by 25<sup>th</sup> April)

Prof. B.M.N.W.B. Balasooriya  
Director, Postgraduate Institute of Science

March 2025