# Crocodile Biology and Conservation

Overview:

Human crocodile conflicts are common phenomena from the past and have become a significant problem throughout the world. Crocodiles, which play a vital role in maintaining the ecosystem balance through prey-predator interaction, require large aquatic habitats, but much of their habitat has been fragmented and degraded and several species are at risk of extinction. However, successful conservation nationally and internationally has allowed some species to recover and they now pose a problem for people. Local people use the rivers and water bodies for drinking water, washing, extraction of water for irrigation, livestock use, building materials (sand) and fishing.Crocodiles can attack people and livestock, entangle fishing nets and people fear crocodile attacks. These conflicts are highlighted by the media, and are impediments to crocodile conservation programmes.

This course examines these issues and their basis in crocodile biology as a general model to address large vertebrate conservation in the modern world. The course is organized in two modules that should be taken together. The topics in Module A: Biology of the Crocodylia and Module B. Models for conservation biology. Module A will expose the participants to the biological aspects of Crocodilians including behavior, ecology, reproduction and life history strategies. Module B will throw light on basic and new concepts of conservation biology, human-crocodile conflict issues and solution, conservation constraints and conservation options and opportunities.

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| **Modules** | **A: Crocodile Biology : March 13 – March 18**<br>**B: Crocodile conservation : March 19 – March 25**<br>**Number of participants for the course will be limited to fifty.** |
| **You Should Attend If…** | ▪ you are a wildlife researcher or research scientist interested in crocodile research and conservation.<br>▪ you are zoologist or environmentalist or faculty interested to learn techniques on wildlife conservation particularly Crocodile conservation<br>▪ you are a student or faculty from academic institution interested in learning how to do research on crocodile biology and population monitoring techniques |
| **Fees** | The participation fees for taking the course is as follows:<br>**Participants from abroad : US $500**<br>**Industry/ Research Organizations: Rs. 4000**<br>**Academic Institutions: Rs. 1000**<br>The above fee include all instructional materials, computer use for tutorials and assignments, laboratory equipment usage charges, 24 hr free internet facility. The participants will be provided with accommodation on payment basis. |

# The Faculty

Dr. Perran Ross, was born in London, UK and raised and educated in Perth, Western Australia, where he obtained his Bachelor of Science degree with honours in Zoology in 1972. He obtained his PhD in Zoology at the University of Florida, USA, in 1976. Dr. Ross was an Associate of the Museum of Comparative Zoology at Harvard University, visiting lecturer at University of Massachusetts and Williams College, Assistant Research Scientist at the Florida Museum of Natural History, Associate Scientist in Wildlife Ecology and Conservation, University of Florida and served as the Executive Officer of the Crocodile Specialist Group and a member of the IUCN/SSC Marine Turtle and Reintroduction Specialist Groups. He was adviser to the Florida Fish and Wildlife Conservation Commission on stakeholder management and Florida conservation issues. He has been engaged in and facilitated a wide variety of conservation issues including crocodilians, sea turtles, gopher tortoise and manatee conservation, threatened species listing, deer management, climate change and conservation policy and planning. Dr. Ross's career focused on international conservation biology, specializing in the application of sustainable use to conservation and management of sea turtles and crocodilians in developing countries. He advised projects, directed surveys, prepared management plans and conducted field research in Australia, Bahamas, Costa Rica, Cuba, Dominican Republic, Mexico, Honduras, Nicaragua, Oman, Saudi Arabia and Yemen. He has been a consultant and advisor to World Wildlife Fund International, CITES, IUCN, US AID, ICBP and the US Fish and Wildlife Service. He has published over 125 scientific and popular papers on conservation and biology. His recent research examined alligator ecology in Florida and the effects of diet and vitamins on mortality. He is currently advising students working on crocodilian ecology in West Africa, Mexico and Brazil and terrapins in Florida.

Professor R J Rao completed his B.Sc. (1976) from Andhra University, M.Sc. (1978) and Ph.D. (1984) from Bhopal University. After submitting his Ph.D. thesis he joined Wildlife Institute of India as Research Fellow to conduct post-doctoral research work on Ecology of aquatic animals in the National Chambal Sanctuary. He joined School of Studies in Zoology, Jiwaji University, Gwalior in January 1989. He has completed research projects from MOEF, UGC, MOA, MPCST, UNDP-GOI, GCA, and DEC. His field of research is primarily on Wildlife Biology and Management and other research interests are Conservation Biology, Environmental Impact Assessment, Zoo management, Conservation and management of Aquatic resources, Human Ecology etc. He has supervised a number of Ph.D., M. Phil. and PG students. Dr. Rao has published more than seventy five research papers in National and internationally reputed journals. His research work was recorded as significant contribution in Encyclopedia Britannica, in 1990. He received advanced research training on Ecohydrology in Europe (1999) and Conservation GIS in USA (2005) through UNEP and UNESCO fellowships. He visited many countries including USA, UK, Italy, France, Australia, Singapore, Sri Lanka, Thailand, Poland, Austria, Hungary, Croatia, Kenya, Senegal, Nepal, South Africa, China etc. for participating in scientific programmes. He organised several scientific programmes like seminars, conferences, workshops, training programmes and important days of scientific significance. Dr. Rao is on the reviewer panel for a number of journals. He is member of several International and National committees and organisations. He worked as Director, Indira Gandhi Academy of Environment, Ecology, Research and Ecoplanning, Dy. Director, Institute of Distance Education in Jiwaji University. He is Coordinator, UGC-SAP DRS III in School of Studies in Zoology, Jiwaji University, Gwalior. He is member of Indian Wildlife Board, Government of India. Presently, he is working as Rector, Jiwaji University, Gwalior.

## Course Coordinator


### Prof. R.J. Rao

Rector
Jiwaji University, Gwalior, 474011,
Madhya Pradesh, India
Tel/Fax: 0751-2442654 / Mobile: 9826255137
Email: rectorju@gmail.com / rjrao09@gmail.com
www.gian.jiwaji.edu