

Hands on Workshop on Molecular Biology

a tool for wildlife species identification

JOINTLY ORGANIZED BY

Department of Biotechnology, Sant Gadge Baba Amravati University, Amravati
&
Wildlife & Conservation Biology Research Foundation, Patan, Gujarat

IN ASSOCIATION WITH

Melghat Tiger Reserve, Maharashtra Forest Department, Maharashtra

Date

8th – 13th January, 2024

Venue

Department of Biotechnology
Sant Gadge Baba Amravati University,
Amravati -444602.



SANT GADGE BABA AMRAVATI UNIVERSITY

Sant Gadge Baba Amravati University, established in May 1983, is a prominent institution that caters to the educational needs of rural western Vidarbha. Spanning across a vast 464.03-acre campus, it serves five districts in Vidarbha. The university is home to 35 teaching departments, a model degree college, and four faculties, with a strong commitment to providing education to the underprivileged. A key focus of the university is skill development, aimed at empowering youth and nurturing future leaders. Additionally, it plays a crucial role in societal upliftment by delivering quality education. Notably, the Department of Biotechnology at the university contributes to the State Forensic Department by offering DNA analysis services and providing training to forest department personnel.

WILDLIFE & CONSERVATION BIOLOGY RESEARCH FOUNDATION

WCB Research Foundation, founded in September 2020, aims to adding science to conservation. We focus on mammalian ecology, habitat modeling, wetland biology, biodiversity monitoring, and environmental biotechnology. Our mission is to accelerate research and enhance the capacity of young researchers in wildlife and conservation biology, promoting science-based conservation and outreach. We offer internships, exchange programs, and consultancy services for biodiversity monitoring and green audits. Currently, we have several ongoing research and conservation projects in different parts of Gujarat, and our future goal is to inspire young students to pursue careers in this field through training and workshops. Additionally, we publish a Scientific tri annual journal "Prithivya" and engage in community services such as wildlife rescue, restoration, and biodiversity monitoring.





INTRODUCTION AND NEED OF WORKSHOP

Species identification is one of the biggest challenges in wildlife forensics, where phenotype identification is not possible. Field biologists, scientists and researchers working on any wildlife species use their signs like scats, hairs, bones etc., to detect their presence. Accurate identification is a challenge when similar species coexist in the same ecosystem. DNA based identification method provides reliable results with high accuracy. Information generated at the molecular level or at the level of genetic diversity may help scientists and managers formulate better conservation strategies.

In view of the need for skill development of this technique for wildlife forensics and species conservation, a six day workshop is organized to learn the basics of field work, including the understanding of sign surveys, use of GPS and identifying species for non-invasive samples through DNA.

WHO CAN PARTICIPATE?

Postgraduate /PhD students /Faculties
/ Professionals from Life Sciences and
Allied subjects/ Forensic Science/
Wildlife Biologist/ Staff handling
forensic samples.

SCOPE

This workshop will help in capacity building. The students will learn techniques from both field work and laboratory work that will help them in their own research. The learned techniques are applicable in industries as well and will also help to initiate early research projects, grants or startups by setting up their own laboratories.

WHAT YOU WILL LEARN

- Sample collection
- DNA extraction
- Gel electrophoresis
- PCR
- Sanger sequencing
- Data analysis

MODE OF TRAINING

Offline including field work, class work and lab work

LIMITED 15 SEATS

on first come first served basis

LAST DATE OF APPLICATION

20th Dec, 2023

REGISTRATION FEES

10,000/-

*includes workshop kit, accommodation, field travel, lab work and consumables, breakfast & lunch (dinner excluded), training materials and certificate



ADVISORY COMMITTEE

- **Dr Pramod Yeole**, Hon`ble Vice Chancellor, Sant Gadge Baba Amravati University, Amravati.- Chairman
- **Dr P A Wadegaonkar**, Hon`ble Pro Vice Chancellor & Head, Department of Biotechnology, Sant Gadge Baba Amravati University, Amravati
- **Dr S V Dudul**, Dean Faculty of Science, Engineering and Technology, Sant Gadge Baba Amravati University, Amravati
- **Dr Sagarika Damle**, Retired Professor & Head of Life Sciences Department, K.C. College, Mumbai
- **Dr Rushika Patel**, Member of Governing council , WCB Research Foundation

ORGANISING SECRETARY

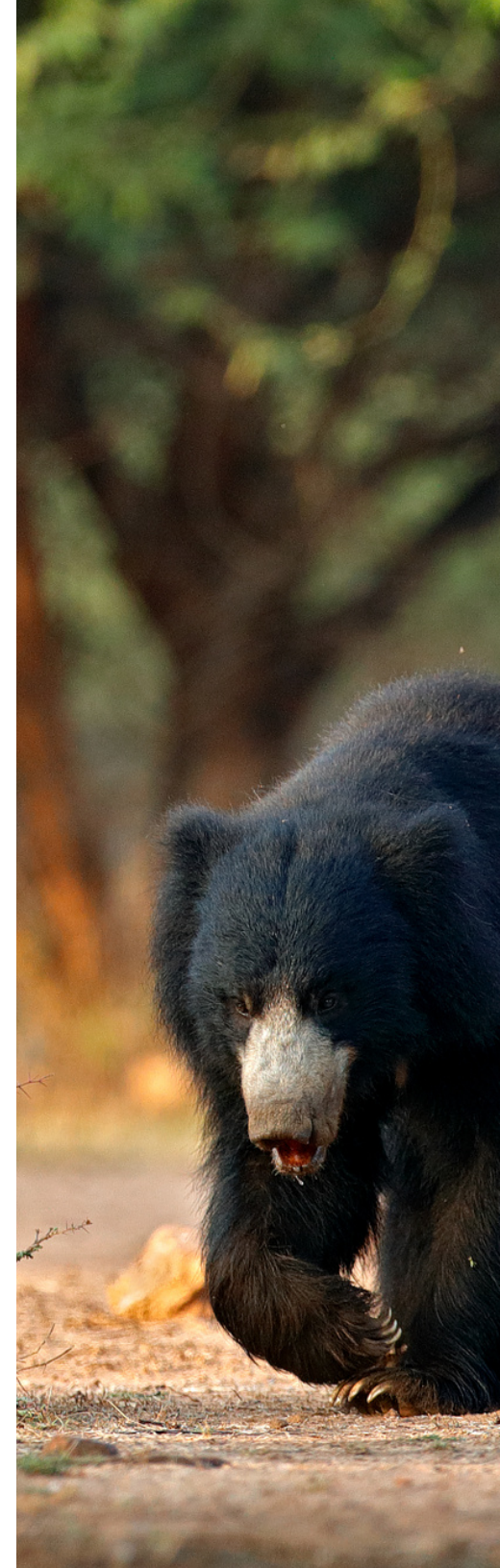
- **Dr P V Thakare**, Convener
- **Dr Anita Patil**, Organizing Secretary
- **Mr Pratikkumar Desai**, Joint Organizing Secretary

COLLABORATOR

- **Field Director**, Melghat Tiger Reserve (MTR), Amravati, Maharashtra

Detailed Schedule

DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
Registration	Field visit for demonstration of sign survey and sample collection	Technical Session on DNA extraction	Technical Session on Polymerase Chain Reaction	Technical Session on Sanger Sequencing	Technical Session on Bioinformatic Analysis
Formal Inauguration	Technical Session for more details on usage of field instruments	Hands on Laboratory Session for DNA extraction from various samples	Hands on Laboratory Session for setting up PCR reaction	Hands on Laboratory Session for sample preparation for sequencing	Hands on Session for result analysis in individual laptops (Laptop Compulsory)
Travel to Shahnoor (Melghat Tiger Reserve) for field work demo	Jungle Safari on paid basis	Visualization of samples using Agarose gel electrophoresis	Visualization of samples using Agarose gel electrophoresis	Perform Sanger Sequencing run	Valedictory Session and Certificate distribution
Technical Sessions on Field Work and Sample collection for DNA analysis	Return to Amravati				
Overnight stay at Shahnoor					



ACCOUNT DETAILS FOR PAYMENT

Account Holder name: Convenor

Account Number: 60465775325

IFSC code: MAHB0001331

Bank Name : Bank of Maharashtra

Branch: SGB, Amravati University

To register
scan the QR Code



FOR MORE INFORMATION

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