

Shri Lal Bahadur Shastri Degree College, Gonda
(Affiliated to Dr Ram Manohar Lohiya Avadh University,
Ayodhya, U.P.)

Department of Zoology

(Certificate Course in Wildlife Conservation and Management)

Certificate Course

Syllabus

Module 1: Principles of Wildlife Ecology and Conservation

- Introduction to wildlife ecology and conservation biology
- Understanding biodiversity, ecosystem services, and ecological processes
- Threats to wildlife populations: habitat loss, fragmentation, pollution, climate change
- Principles of population ecology and conservation genetics

Module 2: Habitat Management Techniques

- Principles of habitat management and restoration
- Habitat assessment methods: GIS, remote sensing, and field surveys
- Conservation planning and landscape-scale management strategies
- Case studies on successful habitat restoration projects

Module 3: Wildlife Population Assessment Methods

- Population estimation techniques: mark-recapture, distance sampling, and occupancy modelling
- Monitoring wildlife populations: camera trapping, acoustic surveys, and telemetry
- Data analysis and interpretation for population assessment
- Ethical considerations and limitations of population assessment methods

Module 4: Conservation Policy and Legislation

- Overview of international and national wildlife conservation policies and conventions
- Wildlife laws and regulations: enforcement and compliance
- Role of governmental agencies, NGOs, and stakeholders in conservation policy development and implementation
- Case studies on policy successes and failures in wildlife conservation

Module 5: Human-Wildlife Conflict Resolution

- Understanding human-wildlife interactions and conflicts

- Strategies for mitigating human-wildlife conflicts: fencing, deterrents, and community-based approaches
- Socioeconomic implications of human-wildlife conflicts
- Conflict resolution case studies from different regions and contexts

Module 6: Case Studies in Wildlife Conservation

- In-depth examination of conservation projects focused on various species and ecosystems
- Analysis of conservation challenges, strategies, and outcomes
- Guest lectures from conservation practitioners and researchers
- Group discussions and presentations on selected case studies

References:-

Textbooks and General References

1. **Primack, R. B. (2020).** *Essentials of Conservation Biology*. 7th Edition. Sinauer Associates, Inc.
 - A foundational text that covers the principles and practices of conservation biology.
2. **Sutherland, W. J., Dicks, L. V., Ockendon, N., & Smith, R. K. (2018).** *What Works in Conservation*. Open Book Publishers.
 - This book provides evidence-based approaches and case studies on conservation practices.
3. **Groom, M. J., Meffe, G. K., & Carroll, C. R. (2006).** *Principles of Conservation Biology*. 3rd Edition. Sinauer Associates, Inc.
 - Another essential text that delves into the science and practice of conserving biodiversity.
4. **Hunter, M. L., & Gibbs, J. P. (2006).** *Fundamentals of Conservation Biology*. 3rd Edition. Blackwell Publishing.
 - A comprehensive guide to the basic principles of conservation biology.

Journals and Articles

1. **Conservation Biology** (Journal) - Published by the Society for Conservation Biology.
 - Provides current research and developments in the field of conservation biology.
2. **Journal of Wildlife Management** - Published by The Wildlife Society.
 - Focuses on the practical aspects of wildlife management and conservation.
3. **Balmford, A., & Cowling, R. M. (2006).** "Fusion or Failure? The Future of Conservation Biology." *Conservation Biology*, 20(3), 692-695.
 - Discusses the future directions and challenges in conservation biology.

Field Guides and Practical Resources

1. **Peterson, R. T., & Peterson, V. M. (2008).** *Peterson Field Guide to Birds of North America*. Houghton Mifflin Harcourt.
 - A practical field guide for bird identification, crucial for fieldwork in conservation.
2. **Elbroch, M. (2003).** *Mammal Tracks & Sign: A Guide to North American Species*. Stackpole Books.
 - Useful for students learning to track and identify mammals in the wild.
3. **Murie, O. J., & Elbroch, M. (2005).** *A Field Guide to Animal Tracks*. Houghton Mifflin

Harcourt.

- Another valuable resource for identifying tracks and signs of various animals.

Online Resources

1. **International Union for Conservation of Nature (IUCN) Red List** - [IUCN Red List](#)
 - The global authority on the conservation status of species, providing data for species assessments.
2. **Convention on Biological Diversity (CBD)** - [CBD Website](#)
 - Offers resources and information on global biodiversity conservation efforts.
3. **Wildlife Conservation Society (WCS)** - [WCS Website](#)
 - Provides case studies, research publications, and information on conservation projects worldwide.

Case Studies and Project Reports

1. **WWF Living Planet Report** - WWF Living Planet Report
 - Biennial report that provides an overview of the state of the world's wildlife and natural habitats.
2. **Conservation International (CI) Case Studies** - CI Case Studies
 - Various case studies highlighting successful conservation projects and initiatives.

Supplementary Resources

1. **Macdonald, D. W., & Sillero-Zubiri, C. (2004).** *The Biology and Conservation of Wild Canids*. Oxford University Press.
 - Focuses on the conservation of wild canids, providing detailed case studies and research findings.
2. **Krebs, C. J. (2016).** *Ecological Methodology*. 3rd Edition. Benjamin-Cummings Publishing Company.
 - A guide to the statistical and methodological approaches used in ecological research and conservation.

Scheme of Examination: 100 Marks

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| 1. Discussion Session: - | Duration 1 Hours |
| 2. Presentation: - | Duration 1 Hours |

(Head Dept. of Zoology)