

Bhakta Kavi Narsinh Mehta University -Junagadh

Syllabus for PhD in Wildlife Sciences

1. Origin and evolution of life, Classification of plants, mammals, birds, reptiles and amphibians.
2. Basic concepts and structure of ecosystem and biological communities. Physical structure of a community; vertical stratification, horizontal heterogeneity, edge and ecotone, biological attributes of a community; species richness, diversity and dominance.
3. Concept of niche, niche parameters and factors affecting it. Effects of inter and intra specific competition.
4. Population, its attributes and their analysis. Population regulation, predation prey models, concept of carrying capacity, techniques for wildlife population estimations and wildlife census.
5. Global status and distribution of major group of animals (Amphibian, Reptiles, Aves and Mammals). Threatened wildlife of India based on IUCN Redlist
6. Movements and migration, mode of communications, foraging and food habits, food selection, reproduction and parental care among birds and mammals, Sexual dimorphism and sex determination in birds, mammals, reptiles and amphibians.
7. National and International policies and legislation for wildlife and biodiversity conservation. Wildlife crime in India and its impact on population and ecosystems. Role of Governmental and NGOs in conservation and management of wildlife in India
8. Major wildlife conservation projects in India: Project tiger, Project rhino, Project, Project elephant, Project hangul. Project dolphin and Asiatic lion conservation project
9. Important wildlife conservation practices in India: Wildlife sanctuaries and National parks, Conservation reserves, Biosphere reserves, and Protected Area (PA) network
10. Advances in wildlife research: Remote sensing and GIS, Conservation genetics, Radio telemetry, Drone survey, Camera trapping, Radio isotopes, etc.
