Managing Population of Wildlife Animals with the Basics of Planning a Forest Area
(Boštjan Pokorny, Ph.D., Associate Prof.)

Subject code: MWBF
Academic year: 2.
Module 1: Nature conservation
Lectures: 30
Seminar work: 30
ECTS: 6

Aims of the subject:

- The student will know and understand: (A) basic characteristics of wildlife animal populations; (b) the most significant intra- and interrelations among wildlife species; (c) the laws governing among populations and the ecological factors.
- The student will acquire knowledge about some key, rare, endangered and significant hunting-economical species of mammals and birds, with emphasis on those characteristics of species which are most significant to optimise the management of their populations.
- To present the student the possibility of the use of wildlife animals as indicators (bioindicators) of quality of biotopes that will allow the student the transfer of their acquired knowledge and the search for logical connections with some other segments of environmental protection.
- The student will learn about: (A) the most frequent cases of conflict situations between humans and wildlife animals, (b) principles, methods and means to reduce the possibility of occurrence of conflict situations.
- To learn about basic principles how to manage wildlife populations.

Subject content:

- Populations of wild animals and their characteristics: their size and density, spatial distribution of individual specimens, gender and age structure, fertility and mortality, migration of animals (settlements and demographic decline), dynamics (growth) of a population.
- Methods to determining (assessment) the size of the population (emphasising sampling and indirect methods and the control method with a thorough review of all indicators in the population and its living environment).
- Environment resistance and the rule of replacement of mortality.
- Interrelation among species, focusing on parasitism, predation and competition among species. Effect of settling non-native species on the functioning of indigenous species. The carrying capacity of the environment. Ecological niche.
- Intra-relations of species: gender relation, cannibalism, social behaviour, territoriality and competition.
- Learning about some more significant mammals in terms of hunting and management (cloven-hoofed animals, carnivores or predators, rabbits) and birds (raptors, grouse species living in forests and fields, aquatic and riparian birds)

- Wild animals as indicators of the quality of the living environment. Bioindicators and principles of bio-indication. Deer as bioindicator of environmental pollution.
- Relations between humans and wildlife animals in a man-made environment. Review of possible conflict situations and measures taken against them: traffic, damage to crops and farm animals. Strategy to reduce the risk of vehicle collision with large herbivores in Slovenia and implementation of measures. Wild boar and its damage to agricultural landscape.
- Concepts and methods of managing populations: planning of culling animals, bio-technical and biomeliorative measures in the environment: migration or settling, re-population, creation, protection and management of habitats.
- The basics of hunting-economical planning. Characteristics of managing game populations in Slovenia. Professional background and dilemmas aimed at improving wildlife management.

Teaching methods:
lectures, practical classes to prepare seminar work and its presentation

Student's obligations:
Oral exam, after a preliminary production and defence of seminar work

Literature

- Study material (handouts of lectures and other material available on the internet ŠIS)
- Kolar, B., 1999. Ekologija živali in varstvo okolja divjadi (*Animal Ecology and Protection of Animal Environment*) .- Zlatorogova knjižnica, LZS, Ljubljana.
- Tome, D., 2006. Ekologija – organizmi v prostoru in času (*Ecology – Organisms in Space and Time*).- Tehniška založba Slovenije, Ljubljana.