Module No.	Module name
P 7	Ecosystem Management

Module coordinators

Prof. Dr. J. Bauhus Email: juergen.bauhus@waldbau.uni-freiburg.de

Additional teaching staff

PD Dr. Peter Pechacek (Pechacek@t-online.de), Dr. Benno Pokorny

Syllabus

The concept of Ecosystem Management has emerged as a new paradigm for the management of natural resources. It is based on the objectives of sustainable use and conservation of natural resources as well as fair and equitable sharing of benefits from ecosystem goods and services. Underpinning this approach are explicit objectives for the management of natural resources. These can be translated into measurable goals, which lend themselves to monitoring. Ecosystem management recognises that ecosystems are complex and interconnected systems, which function on a range of spatial and temporal scales. While management should be based on sound science and ecological models to maintain ecosystem integrity, the approach acknowledges that the current knowledge is limited and the paradigms provisional and likely to change in future. Consequently management approaches are being viewed as hypothesis that require testing through systematic research and monitoring resulting in adaptive management.

In this module, students will be introduced to the concepts underpinning Ecosystem Management to enable them to critically evaluate the strengths and limitations of the approach. The module comprises an excursion of ca. 1 week duration to visit the Bavarian-Bohemian Forest region, which serves as a case study to examine the Ecosystem Management approach. In the last phase of the module students will have to write a report about an analysis of the feasibility to apply the approach to a different setting.

Learning goals and qualifications

Students:

- apply the concepts of ecosystem management to a particular setting (landscape)
- evaluate the strengths and limitations of the ecosystem management approach based on practical experience from a case study
- plan and prepare for an excursion to facilitate discussions with local experts and ensure the most effective format of gathering information
- develop the ability to communicate the analysis of a complex issue in a report.

Teaching and learning methods

Lectures, excursions, tutorials, independent learning

Prerequisites

Students should have skills to:

- review and synthesize information from the literature and other sources
- work in small teams and make presentations to a larger audience
- understand landscape considerations for the protection of biodiversity
- basic understanding of silviculture and the dynamics of vegetation and animal populations

Requirements for registration

Students need to bring their passports on the excursion.

Distribution of work load

Contact hours	60 h (Lectures, pracs, excursion, exam)
Independent learning	65 h (Preparation, research, report writing etc.)

Proposed assessment

Portfolio including: Information about the excursion area, short presentation, documented preparation of the excursion (including catalogue of questions for excursion guides), protocol of the excursion, final report assessing the feasibility of the ecosystem approach

Link to learning resources

http://www.nationalpark-bayerischer-wald.de/

http://www.npsumava.cz/

Preliminary Reading

http://www.iucn.org/themes/cem/

http://www.esa.org/pao/esaPositions/Papers/ReportOfSBEM.php

Comments