SYLLABUS

1. Data about the program

1.1 **Higher Education Institution**	University Babeș-Bolyai, Cluj Napoca
1.2 Faculty	Faculty of Biology and Geology
1.3 Department	Department of Biology and Ecology in Hungarian
1.4 Field of study	Environmental Sciences
1.5 Degree of studies	Master Degree Studies/ 4 semesters
1.6 Study programme / Calification	Terrestrial and aquatic ecology/Research

2. Disciline data

2.1 Name of the discipline		Biogeography field practice					
2.2 Holder of the practical activities							
2.3 Holder of the seminary work		assistant prof. dr. Keresztes Lujza					
2.4 Study year	1	2.5 Semester	2	2.6. Evaluation type	Collocv.	2.7 Discipline regime	F

3. Estimated time (total hours in whole semester)

3.1 Numbers of ours per week	1	From which: 3.2 courses	0	3.3 seminary work	1
3.4 Total hours in curriculum	14	From which: 3.5 courses	0	3.6 seminary work	14
Distribution of time					hours
Study from textbooks, course supports, bibliography and notes					18
Additional documentation in libraries, specialized electronic platforms and in the field					12
Preparation of seminars/homework's, papers, portfolios and essays					12
Tutorial					14
Examinations					16
Other activities: ex. individual study					12

3.7 Total individual study hours	84
3.8 Total hours per semester	98
3.9 Number of credits	4

4. Preconditions (where applicable)

4.1 of curriculum	• not applicable
4.2 of competition	• not applicable

5. Conditions (where applicable)

5.1 Curse	• not aplicabile
5.2 Seminar Works	Identification of biogeographic relics in a selected natural park, identification of species, assessment of population effectives, and biogeographic-conservative assessment of the species

6. Specific skills accured

Professional skills	1. The objective of the field practice of biogeography is the formation of practical skills to identify relict species in their natural environment, to acquire methods of population assessment, and specific environmental requirements, specific to each group and the application of data collection methods. biogeography for data evaluation 2. By graduating the discipline students acquire practical knowledge on the evaluation of biogeographic relics in their natural habitats, as well as a good practical knowledge about the environmental conditions and population in the case of selected relics.
Transversal	• The importance of the investigation and in situ evaluation of the natural environment and of the anthropic activity on the protection of the identified relics • Introducing students in the applied fields of conservation and protection of habitats and natural values

7. Discipline objectives (based on the accumulated competence grids)

7.1 General objectives of the disciplines	• The main objective of the discipline is to familiarize students with the working methodology applied in biogeography, the importance of the survey to assess the impact on relics in areas with intense anthropogenic activity. Students will be able to identify informative taxonomic characters for the recognition of relics in the area and collect data about their natural condition. • The study of biogeographic relics in their natural environment allows the evaluation of the conservation status of the respective species and the role of biogeographic information for the long-term management of the population
7.2 Specific objectives of the disciplines	Based on the practical knowledge acquired in the field practice of biogeography, students will receive a methodological basis for the application of theoretical knowledge in the long-term management of identified relics. The recognition of groups with a relict character, or with a high conservation value of animals and plants has a practical importance for any field of biology (environmental protection, conservation of natural ecosystems). Species will be identified using high-performance determinants and magnifying glasses. During the practical activities students have the opportunity to study some endangered species in our natural environment, and identify those factors that endanger their survival over longer periods.

8. Contents

8.2 Seminary/Laboratory Work	Teaching methods	Observations
1. Identification of potential biogeographic relics present in the area, selection of target species	Using adequate equipment	Location: Administration of the Apuseni Mountains Natural Park, Somesul Cald Gorge
2. Assessment of the conservation status of the selected target species in Europe and Romania based	idem	idem

on the specialized literature		
3. Phylogeographic evaluation of the target species selected on the basis of the literature	idem	idem
4. In situ identification of some relict species: fungi	idem	idem
5. In situ identification of some relict species: gymnosperms	idem	idem
6. In situ identification of some relict species: angiosperms, trees	idem	idem
7. In situ identification of some relict species: herbaceous plants	idem	idem
8. In situ identification of some relict species: mosssess	idem	idem
9. In situ identification of some relict species: insects	idem	idem
10. In situ identification of some relict species: amfibians	idem	idem
11. In situ identification of some relict species: reptiles	idem	idem
12. In situ identification of some relict species: birds	idem	idem
13. In situ identification of some relict species: mammals	idem	idem
14. Colloquium		

Selective bibiography

Ciocârlan, V. (2000): Flora ilustrată a României. Pteridophyta et Spermatophyta. Editura Ceres, București.

Doniţă, N., Popescu, A., Păucă-Comănescu, M., Mihăilescu, S., Biriş, I-A. (2005): Habitatele din România. Editura Tehnică Silvică, Bucuresti.

Fauna R.S.R. Editura Academiei Române, Diferite volume publicate între anii 1960-1980.

Godeanu S.P., 2007-2010, Diversitatea Lumii Vii. Determinatorul ilustrat al Florei și faunei României. Volumele I-III. Vasile Goldis University Press, Arad.

***Plan de management al Parcului Natural Munții Apuseni

9. Corroborating the contents of the discipline with the expectations of the representatives of the epistemic community, professional associations and representative employers in the field related to the program

During the graduation of the discipline, students will need knowledge on the taxonomy of groups of animals and plants, as well as data on the distribution of target species in Europe and Romania. Students must have knowledge with which it will be possible to assess population numbers and identify disruptive factors. Graduates of this discipline can use their knowledge gained in the labor market, in education, in the environmental departments of public institutions at central (profile ministries) and local (county and municipal councils), Environmental Agencies, Water Administration of Romania, Environmental Guard, National and Natural Parks Administrations or other types of protected areas. They can be integrated into private companies / NGOs or NGOs that offer environmental consulting services or biotechnology services. At the same time, the notions specific to the course constitute a starting point towards the higher level of training, represented by the master's and doctoral programs, in the field of biology and ecology.

10. Evaluation

Activity	10.1 **Evaluation criteria**	10.2 **Evaluation method**	10.3 **Percent from the final note**
10.4 Curse			not the case
10.5 Seminary	Species assessment from biogeography and	Colloquium	50%

	conservative approach		
	Presentation of the results of the field data	Colloquium	50%

10.6 **Minimum performance standards**

• Presentation at the final colloquium is possible only after a 100% attendance at the practical activities. Only those who have managed to collect and identify one species from the selected groups of organisms participate in the final colloquium.
• In case of motivated absences it is possible to recover the practice through practical activity carried out as a volunteer at the Museum of Zoology and the Museum of Botany of the Univ. Babeș-Bolyai from Cluj-Napoca.

Date of completion

11.07.2024

Signature of the practice owner

associated prof. dr. Keresztes Lujza

Date of approval in the department

11.07.2024

Signature of the head of the department

associated prof. dr. Keresztes Lujza