Faculty of Science

BIOR51, Biology: Ornithology, 15 credits

Biologi: Ornitologi, 15 högskolepoäng

Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by Study programmes board, Faculty of Science on 2007-03-01 and was last revised on 2015-03-25. The revised syllabus applies from 2015-07-01, autumn semester 2015.

General Information

The course is an optional second-cycle course for a degree of Bachelor or Master of Science in Biology.

Language of instruction: Swedish and English
The course is given in English.

Main field of studies	*Depth of study relative to the degree requirements*
Biology	A1N, Second cycle, has only first-cycle course/s as entry requirements

Learning outcomes

The aim of the course is that the students, on completion of the course, should have achieved a broad ornithological knowledge and an understanding of relevant research methods. This includes the taxonomy, morphology, systematics, evolution, and ecology of birds, and their protection and conservation. Specific weight is put on practical exercises, so that the students will achieve a good practical knowledge in ornithology, which they can have use of in connection with conservation of and research on birds, but also when communicating with the public.

Knowledge and understanding

On completion of the course the student shall be able to:

- identify and name (in Swedish or English) 75-100 common Swedish bird species based on their visual appearance and song
- describe the basic morphological and physiological adaptations of birds from an evolutionary perspective
- account for important ecological and evolutionary issues applied on birds
- describe methods and analyses for monitoring and surveys of bird populations
- give examples of threats and conservation work on birds

Competence and skills

On completion of the course the student shall be able to:

- apply practical field methods to study birds, especially catch and ringing, surveys (line transects and territory mapping)
- carry out studies of nest-box breeding birds
- plan and carry out field studies of birds, and carry out analyses of data, including own data collected during the course
- carry out and present simple ecological and evolutionary research projects on birds in the field or in a laboratory environment

Judgement and approach

On completion of the course the student shall be able to:

? evaluate and analyse collected data from research projects on birds

Course content

The course consists of three parts: field trips (about 3-4 weeks), theory and exercises (about 3-4 weeks) and projects in small groups (2 weeks).

The course contains the following specific topics:

- species identification of birds based on visual appearance and song: in the field, in a museum (stuffed birds) or in the laboratory (from audio recordings of bird songs)
- description of morphological and physiological adaptations in birds from an evolutionary perspective
- a study of nest-box breeding birds in a special study area, which is visited 1-2 times a week during the course
- catch and ringing of birds, species identification, sex and age determination, and collection of morphological measurements on the captured birds
- monitoring of bird populations, including application of different survey methods to estimate the number of individuals for different species, and analysis of collected field data
- bird migration and adaptations for flight: evolutionary and ecological patterns
- life history strategies and sexual selection
- speciation and population differentiation (gene flow, inbreeding, dispersal)
- strategies for and results of monitoring of Swedish bird populations
- practical exercises to learn how to use the statistical program SPSS for data analysis

- practical exercises to learn to evaluate bird survey data
- field trips to practice field determination of birds, and to obtain an insight into bird communities from different habitats

Furthermore, a two-week project in small groups is included. The students plan the project, collect and analyse data, write a report, and carry out a presentation.

Course design

The teaching consists of lectures, field exercises, seminars, group work, practical indoor exercises, and a project. Participation in field exercises, seminars, group work, practical indoor exercises, project, and thereby other integrated teaching, is compulsory.

Assessment

Examination takes place as two examinations during the course (a species identification examination early in the course, and a written examination at the end of the course), as well as written and oral presentations of the own project.

For students who have not passed the regular examination, an additional examination in close connection to this is offered.

Subcourses that are part of this course can be found in an appendix at the end of this document.

Grades

Marking scale: Fail, Pass, Pass with distinction.
To pass the entire course, approved species identification examination (at least 16 of 20 species correctly identified), approved written examination, approved project report, and approved compulsory parts, are required.

The final grade is decided through a weighing of the results of the parts that are included in the examination: written examination 80%, species identification examination 5%, project report 15%.

Entry requirements

For admission to the course, 90 credits of scientific studies including knowledge corresponding to BIOC02 Biology: Ecology 15 credits, and English 6/English B, are required.

Further information

The course may not be included in a degree together with BIO609 Ornithology (15 credits).

Subcourses in BIOR51, Biology: Ornithology

Applies from V08

0701 Ornithology, 15,0 hp
Grading scale: Fail, Pass, Pass with distinction