OS9b - Insects of agricultural landscape - course description

General information

Course name	OS9b - Insects of agricultural landscape
Course ID	13.9-WB-OS2P-entomof-S17
Faculty	Faculty of Biological Sciences
Field of study	Environmental Protection
Education profile	academic
Level of studies	First-cycle studies leading to Bachelor's degree
Beginning semester	winter term 2021/2022

Course information

Semester	5
ECTS credits to win	4
Course type	obligatory
Teaching language	english
Author of syllabus	

Classes forms

The class form	Hours per semester (full-time)	Hours per week (full-time)	Hours per semester (part-time)	Hours per week (part-time)	Form of assignment
Laboratory	15	1	-	-	Credit with grade
Lecture	15	1	-	-	Credit with grade

Aim of the course

Getting knowledge about the insect fauna in the ecosystems of agricultural landscape, its richness and diversity. Ability of selecting appropriate methods to estimate number, density and biomass of insects. Understanding of the importance of refugial environments and ecotone zones. Getting knowledge about the biological and chemical pest control methods. Evidence of the role of shelterbelts in diversity enhancing. Understanding the principles of the agroecosystems functioning and the role of insects in the processes of energy flow and matter cycling.

Prerequisites

Base of zoology and invertebrates ecology

Scope

Basic concepts of entomology. General characteristics of insects in the agricultural landscape. Differentiation of entomofauna in agroecosystems. Importance of refugial environments and ecotone zones. Beneficial insects and their role in agrocenosis. Biological and chemical methods of agrophagous control. Climate changes, alien and invasive species. Secondary succession in the newly introduced midfield shelterbelts. The role of seminatural environments in elevating of the biodiversity and natural pest reduction. Life cycles of selected species. Energy flow and matter circulation in agroecosystems. Environmental islands, microenvironments, ephemeral environments

Teaching methods

Lecture

Learning outcomes and methods of theirs verification

Outcome description	Outcome symbols	Methods of verification	The class form
Ability of selecting appropriate methods to estimate number, density and biomass of insects.	• K1A_W44	• a pass - oral, descriptive, test and other	• Lecture • Laboratory
Understanding of the importance of refugial environments and ecotone zones. Getting knowledge about the biological and chemical pest control methods. Evidence of the role of shelterbelts in diversity enhancing. Understanding the principles of the agroecosystems functioning and the role of insects in the processes of energy flow and matter cycling.	• K1A_U43	• a pass - oral, descriptive, test and other	• Lecture • Laboratory
Getting knowledge about the insect fauna in the ecosystems of agricultural landscape, its richness and diversity.	• K1A_K09	• a pass - oral, descriptive, test and other	• Lecture • Laboratory

Assignment conditions

Participation in lectures

Recommended reading

- Wolfgang Tischner „Agroekologia” PWRiL Warszawa 1971.

- Barbara Wilkaniec „Entomologia ogólna” tom. I, PWRiL 2009.
- Barbara Wilkaniec (red.) „Entomologia stosowana” Wydawnictwo Akademii Rolniczej w Poznaniu. Poznań 2002.
- Eugeniusz Grabda (red.) „Zoologia” Tom 2, część 2.

Further reading

- Kazimierz Simm „Zoologia” Tom I Księgarnia Akademicka. Poznań 1948.
- Józef Banaszak (red.) „Wyspy środowiskowe”. Wydawnictwo Akademii Bydgoskiej. Bydgoszcz 2002.

Notes

Modified by dr Olaf Ciebiera (last modification: 19-05-2021 22:02)