


**KAPITAŁ LUDZKI**  
NARODOWA STRATEGIA SPÓJNOŚCI

Projekt współfinansowany przez  
Unię Europejską w ramach  
Europejskiego Funduszu  
Społecznego

**UNIA EUROPEJSKA**  
EUROPEJSKI  
FUNDUSZ SPOŁECZNY


Course title			ECTS code		
Life in amber			13.1.1491		
Name of unit administrating study					
Faculty of Biology					
Studies					
faculty		field of study		type	
Wydział Biologii		Biologia		drugiego stopnia	
				form	
				stacjonarne	
				specialty	
				biologia środowiskowa, biologia molekularna i komórkowa, genetyka i biologia eksperymentalna	
				specialization	
				wszystkie	
Teaching staff					
dr hab. Jacek Szwedo					
Forms of classes, the realization and number of hours				ECTS credits	
Forms of classes				2	
Lecture				ESTIMATION OF WORKING TIME Work in contact with the teacher: Participation in lectures - 15 hours; Participation in the credit - 1.5 hours; Participation in consultations - 12.5 hours.	
The realization of activities				Student independent work: Preparation to pass - 21 hours. TOTAL: 50 hours.	
classroom instruction					
Number of hours					
Lecture: 15 hours					
The academic cycle					
2022/2023 winter semester					
Type of course			Language of instruction		
an elective course			english		
Teaching methods			Form and method of assessment and basic criteria for eveluation or examination requirements		
- multimedia-based lecture - seminar lecture			Final evaluation		
			Graded credit		
			Assessment methods		
			written test (test and open questions)		
			The basic criteria for evaluation		
			1. Participation in classes - the condition for getting credit is participation in at least 80% of classes. In case of absence from classes, the Student should justify this absence by reporting to the Lecturer within 7 days - counting from the date of termination of sick leave or from the day on which he left the classes for another reason. The student is required to fill in the gaps in knowledge and skills caused by absence from classes on their own, while the gaps in knowledge and skills caused by absence from classes, in a manner indicated directly by the teacher.		
			2. Written test (test) covering material from lectures, activity during seminars.		
			3. Student's achievements are assessed according to the percentage ratio ("UG Studies Regulations").		
Method of verifying required learning outcomes					

zakładany efekt kształcenia	multimedia-based lecture	seminar lecture
	Wiedza	
B2_W01	+	+
B2_W04	+	+
	Umiejętności	
B2_U03	+	+
B2_U07	+	+
	Kompetencje	
B2_K05	+	+

### Required courses and introductory requirements

#### A. Formal requirements

- Fundamentals of systematic biology.

#### B. Prerequisites

- Basic knowledge of systematic botany.
- Basic knowledge of ecology.
- Knowledge of invertebrate systematics.

### Aims of education

- Knowledge of the most important fossil resins and their stratigraphic and geographical distribution.
- Knowledge of major taxa occurring among inclusions in fossil resins.
- The ability to infer about palaeoecology and evolution of taxa, their systematic and morphological palaeodiversity, and reconstruction of palaeoenvironments based on knowledge of inclusions in fossil resins.
- Developing interests in the sciences of evolution and phylogeny, palaeontology, as well as broadly understood amber industry.

### Course contents

- Types of fossil resins.
- Occurrence of fossil resins in the world.
- Taphonomy of fossil resins.
- Taphonomy of inclusion.
- Organic inclusions.
- Review of phyto- and zooinclusions preserved in Baltic amber.
- The importance of inclusions in research on evolution, phylogeny and historical zoogeography of insects.
- Preparation of inclusions for scientific research.
- Recognition of imitations and techniques of amber and amber inclusions counterfeiting

### Bibliography of literature

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- Penney D. 2016. Amber palaeobiology. Research trends and perspectives for the 21st century. Siri Scientific Press, Manchester.
- Sadowski E.-M., Schmidt A.R., Seyfullah L.J., Kunzmann L. 2017. Conifers of the "Baltic amber forest" and their palaeoecological significance. Staphia 106: 1-73.

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**The learning outcomes (for the field of study and specialization)**

Effects for Biology UG: B2\_W01, B2\_W04; B2\_U03, B2\_U07; B2\_K05

**Knowledge**

- Recognizes and characterizes the main ways of behavior of organism remains in fossil resin material (B2\_W01).
- Recognizes patterns of preservation of fossil materials and is able to link them to biotic and environmental changes at the deposition site (B2\_W01)
- Correctly identifies and interprets observed changes occurring during biostratigraphic processes (B2\_W01)
- Knows and understands the meaning of diagenetic changes, can interpret them correctly (B2\_W01)
- Knows methods of palaeontological research and is able to interpret their results (B2\_W04)
- Knows methods of evolutionary and palaeoenvironmental reconstruction and is able to interpret their results (B2\_W04)

**Skills**

- Demonstrates the ability to critically analyze and select biological and geological information, especially from online and electronic sources (B2\_U03)
- Critically confronts biological information from various sources and draws reasonable conclusions on this basis (B2\_U07)

**Social competence**

- Understands the need to use recognized sources of scientific and popular science information in the field of biological sciences and Earth sciences in order to deepen knowledge (B2\_K05)

**Contact**

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