

Subject card

Subject name and code	Invertebrate animals, PG_00196872						
Field of study	Biology						
Date of commencement of studies	October 2026	Academic year of realisation of subject			2026/2027		
Education level	Bachelor's studies	Subject group			Obligatory subject group in the field of study Subject group related to scientific research in the field of study		
Mode of study	full-time studies	Mode of delivery			at the university		
Year of study	1	Language of instruction			Polish		
Semester of study	2	ECTS credits			2.0		
Learning profile	academic	Assessment form			credit		
Conducting unit	Katedra Zoologii Bezkręgowców i Parazytologii -> Faculty of Biology -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Marta Zakrzewska				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	30.0	0.0	0.0	0.0	30
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	30		6.0		14.0	50
Subject objectives	1. Knowledge of the faunal diversity of invertebrate animals of the region. 2. Knowledge of the characteristics of invertebrate animals in order to recognise taxa and the names of species. 3. The acquisition of the ability to work with an invertebrate animal species identification key. 4. The capacity to select and apply appropriate methods for quantitative assessment of organisms in the field and to process the collected material.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BIOLL3_K02] The graduate is prepared to critically self-assess his/her own competences and to update and improve his/her knowledge and skills	The student is responsible for the equipment/materials entrusted to him/her and his/her own work and respects the work of others, consciously applies the principles of bioethics, respecting the regulations on the protection of wild invertebrate species and strives to preserve the natural values of the region.	[SK8] observation of student's independent or team work
	[BIOLL3_W07] The graduate is conversant with the types of natural environments (habitats) from a structural and functional perspective, as well as the selected species of flora and fauna of coastal areas and the methods and forms of nature conservation	The student names and describes selected species of fauna with particular emphasis on taxa typical of coastal habitats and indicates their habitat preferences, identifies species of invertebrate animals, especially those under legal protection, becomes familiar with the successive stages of collection and preservation of animal specimens and characterises the degree to which the faunal diversity of the region is threatened and indicates the possibilities for the rational use of natural assets.	[SW1] oral statement/ conversation/discussion [SW3] text preparation/written work [SW5] implementation of a problem task
	[BIOLL3_U08] The graduate is able to learn independently, in a focused manner	The student is able to collect, correctly conserve and identify the basic invertebrate taxa occurring in Pomerania, as well as make observations of the characteristics of selected invertebrate species and their habitats.	[SU5] implementation of a problem task [SU6] demonstration of practical skills [SU8] observation of student's independent or team work
Subject contents	<p>Observation of invertebrate animals, knowledge of techniques for collecting, preserving and preparing material.</p> <p>Practical identification of invertebrate animal species in the field on the basis of their characteristics.</p> <p>Construction and use of a key to identify invertebrate animals.</p> <p>Learning about selected elements of the biology of observed species at different stages of the life cycle.</p> <p>The diversity of animals in selected ecosystems of Pomerania (forest, meadow, river, lake, dune, beach and the Baltic littoral) including protected species, indicator species, rare species and species of economic importance.</p>		
Prerequisites and co-requisites	Basic knowledge of invertebrate zoology and systematics.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	field reports	51.0%	85.0%
	attendance	100.0%	0.0%
	laboratory assessment	51.0%	15.0%
Recommended reading	<p>Basic literature</p>	<p>Literature used during the course:</p> <ol style="list-style-type: none"> Kołodziejczyk A., Koperski P. 2000. Klucz do oznaczania makrofauny bezkręgowej występującej w wodach śródlądowych Polski. Narodowa Fundacja Ochrony Środowiska, Warszawa. Krzysztofiak A., Krzysztofiak L., Pawlikowski T. 2004. Trzmielce Polski - przewodnik terenowy. Stowarzyszenie Człowiek i Przyroda, Suwałki. pp. 48. Pławilszczikow N. 1972. Klucz do oznaczania owadów. PWRiL, Warszawa. Urbański J. 1951. Poznaj krajowe ślimaki i małże. Ilustrowany klucz do oznaczania 100 gatunków pospolitych ślimaków i małżów krajowych. PZWS, Warszawa. seria Klucze do oznaczania owadów Polski Polskiego Towarzystwa Entomologicznego. <p>Literature studied independently by the student:</p> <ol style="list-style-type: none"> Bogdanowicz W., Chudzicka E., Pilipiuk I., Skibińska E. [red.] 2004, 2007, 2008. Fauna Polski charakterystyka i wykaz gatunków. T I-III. Muzeum i Instytut Zoologii PAN, Warszawa. Głowaciński Z., Nowacki J. [red.] 2005. Polska Czerwona Księga Zwierząt. Bezkręgowce. PAN, Kraków. Zalewska A., Komosiński K., Krupa R., Kołodziej P., Szydłowska J. 2013. Metody wykonywania waloryzacji przyrodniczych. Podręcznik metodyczny i przewodnik do zajęć terenowych. Uniwersytet Warmińsko-Mazurski w Olsztynie, Olsztyn. 	

	Supplementary literature	1. Bellmann H. 2009. Przewodnik entomologa. Szarańczaki. Multico Oficyna Wydawnicza, Warszawa. pp. 344. 2. Bellmann H. 2010. Przewodnik entomologa. Ważki. Multico Oficyna Wydawnicza, Warszawa. pp. 280. 3. Bellmann H. 2011. Przewodnik entomologa. Błonkówki. Multico Oficyna Wydawnicza, Warszawa. pp. 344. 4. Boroń A., Szlachciak J. 2013. Różnorodność i taksonomia zwierząt Tom 2. Przewodnik terenowy do rozpoznawania wybranych krajowych taksonów zwierząt. Uniwersytet Warmińsko-Mazurski w Olsztynie, Olsztyn. 5. Rybak J. I. 2001. Przewodnik do rozpoznawania niektórych bezkręgowych zwierząt słodkowodnych, PWN, Warszawa. 6. Senn P. 2015. Motyle Dienne Gdyni. Atlas rozmieszczenia. Studio FM, Gdynia. pp. 205. 7. Wiktor A. 2004. Ślimaki lądowe Polski. Olsztyn: Mantis. pp. 302.
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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