

Subject card

Subject name and code	Bird inventory methods, PG_00154789						
Field of study	Natural Resources Conservation						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2026/2027		
Education level	undergraduate studies		Subject group		Optional subject group		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	3		Language of instruction		Polish		
Semester of study	6		ECTS credits		1.0		
Learning profile	academic		Assessment form				
Conducting unit	Pracownia Ornitologii -> Katedra Ekologii i Zoologii Kręgowców -> Faculty of Biology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Agnieszka Ożarowska				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	15.0	0.0	0.0	15
	E-learning hours included: 0.0						
	Additional information:						
	• Discussion • Group work • Classes in the laboratory (analysis of the collected material and conclusions) and in the field (observation and documentation). Classes outside the UG campus are carried out in the Tri-City and the Tri-City Landscape Park.						
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	15		3.0		7.0	25
Subject objectives	1. Getting knowledge of national avifauna diversity. 2. Knowledge of the diagnostic features enabling the identification of avian species, knowledge of Polish and Latin names of selected avian species. 3. Ability to select and apply appropriate methods of the population number assessment of bird species in the field and to process the collected material.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[OZPL3_W13] The graduate has an advanced understanding of the fundamental rules, methods, and techniques of environmental research and their potential applications in nature conservation	The student presents the basic methods and techniques of bird survey and inventory, and their use in the protection of these animals	[SW2] presentation/project/paper/report [SW5] implementation of a problem task
	[OZPL3_W04] The graduate possesses advanced knowledge and understanding of the characteristics, systematics, and evolution of selected groups of organisms, as well as the basic concepts and mechanisms of evolution	The student presents the characteristics, evolution and identification of national bird species	[SW2] presentation/project/paper/report [SW5] implementation of a problem task
	[OZPL3_K07] The graduate is prepared to demonstrate responsibility for the equipment/materials entrusted and respects the work of others	The student is responsible for the entrusted equipment/materials and her/his own work and respects the work of others	[SK2] presentation/project/paper/report [SK5] implementation of a problem task [SK8] observation of student's independent or team work
	[OZPL3_U01] The graduate is able to use basic apparatus and research tools and maintains the correct sequence of operations in laboratory and field work	The student uses appropriate research tools and the correct sequence of activities in fieldwork (can properly conduct observation, note diagnostic features and identify national bird species)	[SU2] presentation/project/paper/report [SU5] implementation of a problem task [SU8] observation of student's independent or team work
	[OZPL3_K02] The graduate is ready to work effectively in a team, taking on different roles within it	The student can work effectively in a team	[SK2] presentation/project/paper/report [SK8] observation of student's independent or team work
	[OZPL3_U06] The graduate is able to make observations and perform basic physical, biological and chemical measurements in the field or laboratory	The student conducts observations and performs basic biological measurements in the field	[SU2] presentation/project/paper/report [SU5] implementation of a problem task [SU8] observation of student's independent or team work
	[OZPL3_U04] The graduate is able to plan and carry out simple research tasks in the biological sciences under the guidance of a supervisor	Under the supervision of the teacher, the student plans and performs simple research tasks (population monitoring) within the topic of zoology and bird ecology	[SU2] presentation/project/paper/report [SU5] implementation of a problem task [SU8] observation of student's independent or team work
	[OZPL3_K04] The graduate is ready to understand the need for honesty and integrity in scientific and professional work, and consciously applies the principles of bioethics	The student applies the principles of bioethics, respecting the regulations on the protection of wild birds	[SK2] presentation/project/paper/report [SK5] implementation of a problem task [SK8] observation of student's independent or team work
Subject contents	Detection and identification of avian species based on their observation and description of diagnostic features. Detection and identification of avian species based on the observation of their behaviour (including singing). Methods for the bird population number assessment, taking into account seasonality and life cycle of these animals (methods used during the breeding season, migration, and wintering). Ethics of field research and principles of research of species sensitive to human disturbance.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	attendance at classes	85.0%	50.0%
	written elaboration and analysis of the collected material	51.0%	50.0%

Recommended reading	Basic literature	A.1. used during classes Bezzel E. 2010. Jakie to pióro? Multico, Warszawa. Brown R., Fergusson J., Lawrence M., Lees D. 2006. Tropy i ślady ptaków. Muza SA, Warszawa. Chylarecki P., Sikora A., Cenian Z., Chodkiewicz T. [red.]. 2015. Monitoring ptaków lęgowych. Poradnik metodyczny. GIOŚ, Warszawa. Cieślak M., Dul B. 2009. Pióra. Identyfikacja gatunków rzadkich. Natura Publishing House, Warszawa. Jabłoński B., Gotzman J. 1972. Gniazda naszych ptaków. PZWS, Warszawa. Jonsson L. 1998. Ptaki Europy i obszaru śródziemnomorskiego. Muza SA, Warszawa. Kuczyński L., Chylarecki P. 2012. Atlas pospolitych ptaków lęgowych Polski. Rozmieszczenie, wybiórczość środowiskowa, trendy. GIOŚ, Warszawa. Meissner W. 2011. Metody zimowych liczeń ptaków wodnych. FWIE. Romanowski J. 1990. Śladami zwierząt. Krajowa Agencja Wydawnicza, Warszawa. Svensson L., Mullarney K., Zetterstrom D., Grant P. J. 2009. Przewodnik Collinsa Ptaki. Multico, Warszawa. Oraz publikacje, opracowania i instrukcje dostępne na stronach Głównego Inspektoratu Ochrony Środowiska (http://www.gios.gov.pl/) oraz http://monitoringptakow.gios.gov.pl/o-programie. A.2. studied independently by the student Biuletyn Monitoringu Przyrody 8 (2011/1). Monitoring populacji ptaków w latach 2008 2009. GIOŚ, Warszawa. Biuletyn Monitoringu Przyrody 9 (2012/1). Monitoring populacji ptaków w latach 2010 2012. GIOŚ, Warszawa. Bouchner M. 1992. Przewodnik Śladami Zwierząt. Multico, Warszawa. Kopij G. 2015. Metoda kartograficzna: wersje uproszczone czy kombinowane? Orn. Pol. 56:137145. Kosiński Z., Kupczyk M. 1998. Dokładność metody obchodzenia w porównaniu z kombinowaną odmianą metody kartograficznej i możliwość jej zastosowania w monitoringu ptaków wodnych. Not. Orn. 39: 243252. Tomiałojć L. 2014. Metoda kartograficzna: oceny liczebności ptaków przeprowadzane w warunkach hałasu śródmiejskiego i przy
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		niejednakowym doświadczeniu. In: Indykiewicz P., Böhner J. (eds). Urban fauna: Animal, Man, and the City Interactions and Relationships, ss. 179193. Tomiałojć L., Verner J. 1990. Do point counting and spot mapping produce equivalent estimates of bird densities? Auk 107: 447450.
	Supplementary literature	Czapulak A., Lontkowski J., Nawrocki P., Stawarczyk T. ABC obserwatora ptaków. Muzeum Okręgowe w Radomiu. Ożarowska A., Zaniewicz G., Meissner W. 2016. Blackcaps <i>Sylvia atricapilla</i> on migration: a link between long-term population trends and migratory behaviour revealed by the changes in wing length. Acta Ornithol. 51: 211219. Publikacje i opracowania dostępne na stronach: - Głównego Inspektoratu Ochrony Środowiska (http://www.gios.gov.pl/ oraz http://monitoringptakow.gios.gov.pl/o-programie) - Ogólnopolskiego Towarzystwa Ochrony Ptaków: http://www.otop.org.pl/ - Komitetu Ochrony Orłów: http://www.koo.org.pl/ - Grupy Badawczej Ptaków Wodnych KULING: http://www.kuling.org.pl/index.html - Stacja Ornitologiczna Muzeum i Instytutu Zoologii Polskiej Akademii Nauk: http://www.stornit.gda.pl/start.html
	eResources addresses	Uzupełniające Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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