



KAPITAŁ LUDZKI
NARODOWA STRATEGIA SPÓŁNOŚCI

Projekt współfinansowany przez
Unię Europejską w ramach
Europejskiego Funduszu
Społecznego

UNIA EUROPEJSKA
EUROPEJSKI
FUNDUSZ SPOŁECZNY



Course title	ECTS code					
Evolutionary and Behavioural Ecology	not defined					
Name of unit administrating study						
Faculty of Biology						
Studies						
faculty	field of study	type	second tier studies (MA)			
Faculty of Biology	Biology	form	full-time			
		specialty	null			
		specialization	all			
Teaching staff						
dr hab. Katarzyna Wojczulanis-Jakubas; dr hab. Wojciech Pokora, profesor uczelni						
Forms of classes, the realization and number of hours		ECTS credits				
Forms of classes		3				
Lecture		STUDENT'S ESTIMATED WORKING TIME				
The realization of activities		Working in touch with the teacher:				
classroom instruction		Participation in lectures - 30 hours				
Number of hours		Participation in the exam - 1 hour				
Lecture: 30 hours		Participation in consultations - 5 hours				
		Student's independent work:				
		Preparation for the exam: 39 hours				
		Total: 75 hours				
The academic cycle						
2022/2023 winter semester						
Type of course	Language of instruction					
an elective course	polish					
Teaching methods	Form and method of assessment and basic criteria for evaluation or examination requirements					
critical incident (case) analysis -multimedia-based lecture	Final evaluation					
	Examination					
	Assessment methods					
	written exam (test)					
	The basic criteria for evaluation					
	Final test, evaluation of score based on UG regulations. Attendance on lecture is compulsory (4 hours of absence acceptable but student familiarizes with the content of the lost lecture).					
Method of verifying required learning outcomes						

Effects	multimedia-based lecture	critical incident (case) analysis
Knowledge		
B2_W01	Test	Test
B2_W04	Test	Test
B2_W05	Test	Test
Skills		
B2_U07	Test	Test
Competences		
B2_K05	Test	Test

Required courses and introductory requirements

A. Formal requirements

There is no specific formal requirements.

B. Prerequisites

Good understanding of English (at least B2 level).

Aims of education

The aim of the course is to deliver basic knowledge on evolution of animal behaviour in the context of various ecological conditions.

Course contents

Natural selection and adaptations
 Testing hypotheses in behavioural ecology.
 Evolution of life-history strategies
 Economic decisions/optimization/evolutionary arm race
 Competition over resources.
 Living in groups
 Sexual selection and sexual conflict.
 Parental care and conflict in family.
 Breeding systems.
 Sex ratio and allocation.
 Cooperation and altruism.
 Evolution of communication signals.

Bibliography of literature

Basic literature

Krebs, J.R. i N.B. Davies. 2001. Wprowadzenie do Ekologii Behawioralnej. PWN W-wa (available English version)
 A. Łomnicki. 2012. Ekologia ewolucyjna. PWN, W-wa (in Polish only but all the required content presented on slides during the lecture)

Additional literature

Scientific papers provided during the lecture, including:
 Araya-Salas M, Wojczulanis-Jakubas K, Phillips EM, et al (2017) To overlap or not to overlap: context-dependent coordinated singing in lekking long-billed hermits. Anim Behav 124: doi: 10.1016/j.anbehav.2016.12.003
 Wojczulanis-Jakubas K, Jakubas D, Øigarden T, Lifeld JT (2009) Extrapair copulations are frequent but unsuccessful in a highly colonial seabird, the little auk, Alle alle. Anim Behav 77:433–438. doi: 10.1016/j.anbehav.2008.10.019
 Grissot A, Araya-Salas M, Jakubas D, et al (2019) Parental Coordination of Chick Provisioning in a Planktivorous Arctic Seabird Under Divergent Conditions on Foraging Grounds. Front Ecol Evol 7:. doi: 10.3389/fevo.2019.00349
 Wojczulanis-Jakubas K (2021) Being the winner is being the loser when playing a parental tug-of-war – a new framework on stability of biparental care. Front Ecol Evol 9:. doi: 10.3389/fevo.2021.763075
 Wojczulanis-Jakubas K, Minias P, Kaczmarek K, Janiszewski T (2013) Late-breeding Great Cormorants *Phalacrocorax carbo sinensis* produce fewer young of the more vulnerable sex. Ibis (Lond 1859) 155:626–631. doi: 10.1111/ibi.12061
 Wojczulanis-Jakubas K, Drobnik SM, Jakubas D, et al (2018) Assortative mating patterns of multiple phenotypic traits in a long-lived seabird. Ibis (Lond 1859). doi: 10.1111/ibi.12568
 Wojczulanis-Jakubas K, Kulpińska M, Minias P (2015) Who bullies whom at a garden feeder? Interspecific agonistic interactions of small passerines during a cold winter. J Ethol 33:159–163. doi: 10.1007/s10164-015-0424-x
 Minias P, Wojczulanis-Jakubas K, Kaczmarek K (2014) Offspring sex ratio varies according to nest location within a colony of great cormorants. Auk 131:388–395. doi: 10.1642/AUK-13-259.1
 Wojczulanis-Jakubas K, Jakubas D, Stempniewicz L (2005) Changes in the Glaucous Gull Predatory Pressure on Little Auks in Southwest Spitsbergen. Waterbirds 28:430–435. doi: 10.1675/1524-4695

The learning outcomes (for the field of study and specialization) For Biology: B2_W01, B2_W04, B2_W05, B2_U07, B2_K05	Knowledge Student demonstrates a solid knowledge in the area of behavioural ecology and evolution and understands complexity of various biological processes (B2_W01). Based on the knowledge gathered during the course, student can evaluate/discuss newly learned facts (B2_W04), they have also knowledge on studies being now a central interest of behavioural ecology and evolution (B2_W05).
	Skills Student can interpret adaptations and/or behaviour of animals and humans in respect to evolutionary and ecological contexts (B2_U07).
	Social competence Student exhibits a critical thinking, and remains open for interlocutor's opinion, they have a habit of using solid scientific literature to obtain knowledge, verify opinions, and conclude about a discussed topic (B2_K05).

Contact

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