


KAPITAŁ LUDZKI
 NARODOWA STRATEGIA SPÓJNOŚCI

 Projekt współfinansowany przez
 Unię Europejską w ramach
 Europejskiego Funduszu
 Społecznego

UNIA EUROPEJSKA
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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
		specjalty	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		Final evaluation	
-multimedia-based lecture		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/optimalization/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, Lifjeld 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, Stępniewicz 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).
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