

Subject card

Subject name and code	Tropical ecology, PG_00154737						
Field of study	Biology						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2025/2026		
Education level	postgraduate studies		Subject group		Obligatory subject group in the field of study Optional subject group		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	2		Language of instruction		Polish Some classes may be held in English - e.g. a conversation with invited scientists		
Semester of study	3		ECTS credits		1.0		
Learning profile	academic		Assessment form				
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr Monika Lipińska				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	0.0	0.0	15
	E-learning hours included: 0.0						
	Additional information:						
	Lecture with multimedia presentationDiscussionProblem-based learning						
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		2.0		8.0	25
Subject objectives	1. Getting to know the basic concepts of ecology and biogeography of tropical biomes. 2. Understanding the structure and functioning of the main tropical biomes. 3. Review of selected groups of animals and plants and their role in tropical ecosystems. 4. Understanding the impact of anthropogenic pressure and climate change on tropical ecosystems and the organisms inhabiting them. 5. Learning the methodology and specifics of conducting scientific research in tropical regions.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BIOLMU2_K07] the graduate is ready to systematically update biological knowledge and information on its practical applications	Student systematically updates biological knowledge and information about its practical applications	[SK1] oral statement/conversation/discussion
	[BIOLMU2_K05] the graduate is prepared to use recognised sources of scientific and popular information in the biological sciences to further his or her knowledge	Student uses recognized sources of scientific and popular science information in the field of biological sciences in order to deepen knowledge	[SK3] text preparation/written work
	[BIOLMU2_U09] the graduate is able to write research papers in the field of the studied biological specialty in Polish and short scientific communications in English based on own research	The student is able to write research papers in the field of the studied biological specialty in Polish and short scientific reports in English based on his or her own research	[SU3] text preparation/written work
	[BIOLMU2_U07] the graduate is able to critically confront biological information from a variety of sources and, on this basis, draw valid conclusions	The student is able to critically compare biological information from various sources and draw justified conclusions on this basis	[SU1] oral statement/conversation/discussion [SU5] implementation of a problem task
	[BIOLMU2_U02] the graduate is able to make proficient use of the scientific literature of the biological specialty studied	The student can fluently use the scientific literature of the studied biological specialty	[SU3] text preparation/written work
	[BIOLMU2_W02] the graduate knows and understands the principle of strict, empirically based interpretation of biological phenomena and processes in research work and practical activities	The student understands the principle of strict interpretation of biological phenomena and processes based on empirical data in research and practical activities	[SW1] oral statement/conversation/discussion
	[BIOLMU2_W01] the graduate knows and understands natural phenomena and processes at different levels of complexity	The student has an in-depth understanding of natural phenomena and processes at various levels of complexity occurring in tropical ecosystems	[SW4] test/exam - oral or written
Subject contents	Basic concepts of tropical ecology. Structure and functioning of major tropical biomes. Factors shaping biodiversity in the tropics. Biodiversity hotspots. The impact of anthropopressure and climate change on tropical ecosystems and the organisms inhabiting them. Methodology and specificity of conducting scientific research in tropical regions.		
Prerequisites and co-requisites	Basic knowledge of ecology and biogeography. Knowledge of English enabling the use of the literature on the subject.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Test (single choice questions)	51.0%	40.0%
	Scientific essay	51.0%	40.0%
	Active participation in the discussion	51.0%	20.0%

Recommended reading	Basic literature	Forsyth, A., & Miyata, K. (2011). Tropical Nature: Life and Death in the Rain Forests of Central and South America. Simon and Schuster. Gritzner, C. F. (2009). The Tropics. Infobase Publishing. Kricher, J. C. (1997). A neotropical companion: an introduction to the animals, plants, and ecosystems of the New World tropics. Princeton University Press. Kricher, J. C. (2011). Tropical ecology. Princeton University Press. The latest scientific articles on biodiversity in tropical regions, IUCN reports, e.g.: Lipińska M.M., Wibowo A.R.U., Margońska H.B. 2022. Notes on the genus <i>Nervilia</i> (Orchidaceae, Nervilieae) in Bali with new records. Acta Societatis Botanicorum Poloniae 91: art. no. 915. Lipińska M.M., Archila F.L., Haliński Ł.P., Łuszczek D., Szlachetko D.L., Kowalkowska A.K. 2022. Ornithophily in the subtribe Maxillariinae (Orchidaceae) proven - case study of <i>Ornithidium fulgens</i> in Guatemala. Scientific Reports 12(1): 5273. Margońska H.B, Champion J., Lipińska M.M. 2022. Preliminary checklist of Malaxidinae and Liparidinae representatives (Orchidaceae, Malaxideae) from Bali and Lombok islands (Indonesia) with new records. Diversity 14(5): art. no. 398 Kolanowska M., Kras M., Lipińska M., Mystkowska K., Szlachetko D. L., Naczek A. M. 2017. Global warming not so harmful for all plants - response of holomycotrophic orchid species for the future climate change. Scientific Reports Vol. 7, art. no. 12704.
	Supplementary literature	Hastenrath, S. (2012). Climate dynamics of the tropics (Vol. 8). Springer Science & Business Media. Rovero, F., & Ahumada, J. (2017). The Tropical Ecology, Assessment and Monitoring (TEAM) Network: An early warning system for tropical rain forests. Science of the Total Environment, 574, 914-923. Golley, F. B., & Medina, E. (Eds.). (2012). Tropical ecological systems: trends in terrestrial and aquatic research (Vol. 11). Springer Science & Business Media. Dominy, N. J., & Duncan, B. (2002). GPS and GIS methods in an African rain forest: applications to tropical ecology and conservation. Conservation Ecology, 5(2). Cole, N. A. (1984). Tropical ecology research. Nature, 309(5965), 204-204.
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Essay topics may include, among others: the impact of logging and deforestation on the ecosystem of a selected country, analysis of the impact of global climate change on the flora and fauna of tropical countries, the latest trends in research in tropical regions or analysis of fake news present in the media. Discussions will include a critical analysis of data presented during lectures (e.g. recent articles).	
Work placement	Not applicable	

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