

Subject card

Subject name and code	Marine mammals - biology and management, PG_00117877						
Field of study	Oceanography						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2025/2026		
Education level	Master's studies		Subject group		Obligatory subject group in the field of study Optional subject group 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		1.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Prof. Krzysztof Skóra Hel Marine Station -> Faculty of Oceanography and Geography -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Iwona Pawliczka Vel Pawlik				
	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						
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		6.0		10.0	31
Subject objectives	Learning about life strategies related to the challenges of the marine environment, like feeding, communication, and reproduction. Building awareness of the ecological role of marine mammals in aquatic ecosystems. Presentation of the importance of the health condition of marine mammals in the survival against the challenges of the aquatic environment. Familiarization with conservation conflicts in population management, the importance of knowledge about species and new research methods for the effective management of human activities in the protection of marine mammals and their habitats.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[OCEANMU2-W01] knows and understands in-depth specialized terminology used in oceanography and related sciences (in Polish and a selected foreign language)	the student has an in-depth understanding of the specialized terminology relevant to marine mammal science	[SW4] test/exam - oral or written
	[OCEANMU2-W06] knows and identifies potential threats to the marine environment on a local and global scale resulting from strong anthropopressure, predicts their effects on various time and space scales	the student knows and identifies potential threats resulting from high anthropopressure for marine mammals, especially in coastal areas of seas and oceans, and knows and understands the impact of human activities on the condition of marine ecosystems, knows the benefits of using its resources	[SW4] test/exam - oral or written
	[OCEANMU2-U02] can use scientific terminology fluently and appropriately in presenting and discussing problems in the field of oceanography	the student is able to fluently and appropriately use current scientific terminology in presenting and discussing problems in the field of marine mammals	[SU4] test/exam - oral or written
	[OCEANMU2-W07] knows and understands legal regulations, principles of sustainable development of the marine environment, its protection and management of the marine environment and its resources	the student knows and understands the basic legal regulations and principles regarding the sustainable development of the marine environment and nature protection as well as the management of the marine environment and its resources	[SW4] test/exam - oral or written
Subject contents	Variety of the degree of adaptation of marine mammals to life in the aquatic environment. Behavioral ecology as a cognitive tool in marine mammal science. Life strategies of marine mammals, i.e. feeding, reproduction, protection against predators, lifespan and mortality, social life. Health condition as a condition for the survival of marine mammals in the marine environment. Parasitism in marine mammals as a pathogenic element and a factor in interactions with humans. The importance of habitat sustainability for marine mammals. Managing the exploitation and conservation of marine mammals as a social process.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	oral presentation	51.0%	100.0%

Recommended reading	Basic literature	Gójska, A., Pawliczka, I. Program Ochrony Morświna, GDOŚ, 2015. Jefferson, T.A., Webber, M.A., Pitman, R. Marine Mammals of the World: A comprehensive Guide to their identification. Academic Press. 2018 Society for Marine Mammalogy, Committee of Taxonomy. Marine Mammals Species List. 2024. Evans, P. i Raga, T. (ed.) Marine Mammals: Biology and Conservation. Kluwer Academic/Plenum Publishers. 2001 Brennecke, D. Knickmeier, K., Pawliczka, I., Siebert, U., Wahlberg, M. Marine Mammals: A Deep Dive into the World of Science. Springer, 2023
	Supplementary literature	Carlén I., Thomas L., Carlström J., Amundin M., Teilmann J., Tregenza N., Tougaard J., Koblitz J.C., Sveegaard S., Wennerberg D., Loisa O., Dähne M., Brundiers K., Kosecka M., Kyhn L.A., Ljungqvist C.T., Pawliczka I., Koza R., Arciszewski B, Galatiuse A., Jabbusch M., Laaksonlaita J., Niemi J., Lyytinen S., Gallus A., Benke H., Blankett P., Skóra K.E., Acevedo-Gutiérrez A., Basin-scale distribution of harbour porpoises in the Baltic Sea provides basis for effective conservation actions, Biological Conservation, Volume 226: 42-53. 2018 Głowaciński (red) Polska Czerwona Księga Zwierząt IUCN Red List of Threatened Species (online) 2001 Marine Mammal Necropsy: An introductory guide for stranding responders and field biologists. Woods Hole Oceanographic Institution. 2007 (online) State of the Baltic Sea - Second HELCOM Holistic Assessment 2011-2016 (online) Varjopuro R Co-existence of seals and fisheries? Adaptation of a coastal fishery for recovery of the Baltic grey seal. Marine Policy 35:450456. 2011
	eResources addresses	
Example issues/ example questions/ tasks being completed	The role of marine mammals in the marine ecosystem. Methods for estimating marine mammal populations. The importance of post-mortem research for marine mammal conservation management. Reproductive strategies of Mysticeti. Types of ectoparasites of marine mammals and their importance for the health of the hosts.	
Work placement	Not applicable	

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