

Module Descriptions

Module designation	Herpetology (course code MPB 3245)
Semester(s) in which the module is taught	6 th semester of Bachelor Programme in Biology
Person responsible for the module	Kartika Prabasari, M.Si.
Lecture (s)	1. Dr. Junardi, S.Si., M.Si. 2. Riyandi, S.Si., M.Si. 3. Kartika Prabasari, M.Si.
Language	Indonesia
Names of other study programmes with which the module is shared	-
Relation to curriculum	Elective course
Teaching methods	Lecture, case based learning, and practical sessions
Workload (incl. contact hours, self-study)	Total workload: 7.76 ECTS • Lecture: 26.6 hours (0.99 ECTS) • Assignment: 60.1 hours (2.23 ECTS) • Independent study: 56 hours (2.07 ECTS) • Practical sessions: ○ Labwork: 47.8 hours (1.77 ECTS) ○ Fieldwork: 18.99 hours (0.7 ECTS)
Credit points	3 credits
Required and recommended prerequisites for joining the module	Students have taken Vertebrate Systematics (MPB 3121)

Module objectives/intended learning outcomes	Intended Learning Outcomes (ILO) Knowledge (ILO-2) Able to integrate and apply biological science and other scientific fields that support the development of biological science. General Skill (ILO-3) Able to collaborate effectively within a team and to communicate actively, both orally and in writing, in the domain of biology. Specific Skill (ILO-6) Able to apply biological methodology and use instruments by prioritising work safety and able to apply in the management of tropical wetland resources. Course outcomes (CO) CO 8. Students are able to analyse the relationship between the structure and function of the cells, tissues, and organs that constitute living organisms. CO 11. The ability to analyze the interactions among living organisms, ranging from the population level to the biosphere for understanding ecological dynamics. CO 13. The ability to integrate the disciplines of ecology, evolution, and genetics is essential for comprehensively understanding the concept of biodiversity, particularly in the context of sustainable natural resource management. CO 17. Students are able to collaborate within a team to successfully complete case studies or projects in the field of biology and to present the findings effectively. CO 27. Students are able to operate biological instruments and methodologies with a primary emphasis on ensuring safety during the observation and measurement of biological and environmental entities.
Content	The Herpetology course provides a comprehensive exploration of herpetofauna, encompassing foundational concepts in morphological and anatomical characteristics, systematics, biogeography, reproductive biology, locomotor mechanisms, and communication strategies. It further examines population dynamics and species composition, with an emphasis on the practical application of this knowledge through standardized survey techniques, ecological research methodologies, spatial ecological analysis, and strategies for the conservation of herpetofaunal diversity.
Examination forms	1. Theory 70% a. Midterm 15% b. Final Exams 15% c. Case-Based Assignment 40% • Individual/Group Activity 20% • Group Report 20% 2. Practical sessions 30% a. Activity 15% b. Individual Report 15%
Study and examination requirements	75% attendance

Reading list	1. Pough, F. H., R. M. Andrews, M. L. Crump, A.H. Savitzky, K. D. Wells, M. C.Brandley. (2016). Herpetology. Fourth Edition. Sinauer Associates Inc., Sunderland. 2. Vitt, L.J. and Caldwell, J.P. (2013). Herpetology: An Introductory Biology of Amphibians and Reptiles. Fourth Edition. Elsevier, California. 3. Wells, K.D. (2010). The Ecology and Behavior of Amphibians. University of Chicago Press, London. 4. Norris, D.O. and Lopez, K.H. (2024). Hormone and Reproduction of Vertebrates, Volume 3 : Reptiles. Academic Press, London. 5. Inger, R.F., R.B. Stuebing, T.U. Grafe, J.M. Dehling. (2017). A Field Guide to the Frogs of Borneo. Third Edition. Natural History Publications (Borneo), Kota Kinabalu. 6. Masrisa, U., Junardi, J., and Saputra, F. (2024). Composition of Anura Species in Three Types of Habitats in Belaban Resort, Bukit Baka Bukit Raya National Park, West Kalimantan. Jurnal Biologi Tropis 24(1): 807-813. 7. Prabasari,K., Kurnianingsih,N., and Kurniawan,N. (2023). In silico exploration of bioactive compounds from Withania somnifera as inhibitor for alpha Delta bungarotoxin of Bungarus candidus venom. BIOTROPIKA 11(2): 64-73. 8. Kurniawan, N., Septiadi, L., Kadafi, A.M., Fathoni, M., Prabasari, K., and Thammachoti, P. (2023). A New Species of Theloderma Tschudi, 1838 (Amphibia: Rhacoporidae) from Central Java Allied to T. horridum (Boulenger, 1903). Asian Herpetological Research 14(1): 1–23.
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