


MODULE HANDBOOK

	UNIVERSITAS PADJADJARAN FACULTY OF MATHEMATICS AND NATURAL SCIENCES BACHELOR OF BIOLOGY PROGRAMME	COURSE CODE D10D-6315
Module designation	Plant Conservation	
Semester(s) in which the module is taught	6	
Person(s) responsible for the module	1. Prof. Parikesit, M.Sc., Ph.D 2. Dr. Teguh Husodo, M.Si 3. Dr. Indri Wulandari, M.I.L	
Medium of instruction	Indonesian	
Relation to curriculum	Elective course	
Teaching methods	Lectures, discussions, cooperative learning, project base learning and inquiry learning	
Workload	Total workload : 5440 minutes = 90.67 hours Lectures, discussions, cooperative learning, and inquiry learning : 2 x 50 minutes x 16 weeks = 1600 minutes = 26.67 hours Exercises : 2 x 60 minutes x 16 weeks = 1920 minutes = 32 hours Self-study : 2 x 60 minutes x 16 weeks = 1920 minutes = 32 hours	
Credit points	2,00 (3,62 ECTS)	
Required and recommended prerequisites for joining the module	Bioconservation	
Module objectives/intended learning outcomes	1. Students are able to classify the basic principles of conservation biology and various multidisciplinary approaches used in biodiversity conservation 2. Students are able to describe the role of advanced technologies such as remote sensing, GIS, and genetic analysis in monitoring and managing species and ecosystem conservation 3. Students are able to analyze data literacy, technology literacy, and human literacy skills with the application of science-based conservation strategies and environmental policies 4. Students are able to identify various factors that threaten biological conservation as a result of climate change, deforestation, overexploitation, and invasive species 5. Students are able to find biology and technology-based conservation solutions to overcome environmental problems and support ecosystem sustainability 6. Students are able to connect the roles of community leadership and entrepreneurship in biological resource management through community-based conservation and ecotourism approaches 7. Students are able to design conservation regulations and policies applicable at the national and international levels and their implications for biological resource management 8. Students are able to plan the implementation of conservation biology concepts in various aspects of daily life to increase public awareness and participation in environmental preservation	
Contents	1. Definition and objectives of plant conservation 2. Policies and regulations related to plant conservation 3. Protected plant species 4. Rarity and extinction of plant species 5. Issues and challenges of forest conservation sovereignty 6. Current cases and issues in forest conservation 7. In situ and ex situ plant conservation 8. Techniques for estimating the potential and harvesting of plant species naturally and sustainably in Indonesian tropical forests 9. Community involvement in the management and conservation of plant species 10. Local wisdom in forest conservation	
Examination forms	Quiz, midterm exam, assignment, and final exam	
Study and examination requirements	The minimum attendance in lectures is 80%. Final grades are evaluated based on quiz (10%), midterm exam (15%), assignment (10%), final exam (15%), project and participation (50%)	

Reading lists

1. Bappenas. 2003. Strategi dan Rencana Aksi Keanekaragaman Hayati Indonesia 2003-2020. Bappenas. Jakarta. Edward.O.Wilson. 1992. The Diversity of Life. W.W. Norton & Company.
2. Fahrig, L. 2003. Effect of Habitat Fragmentation on Biodiversity. *Ann. Rev. Ecol.Evol.Syst.* 34:487-515. Kantor Menteri Negara Lingkungan Hidup.1997.Agenda 21 Indonesia : A National Strategy for Sustainable Development. KMNLIH dan UNDP. Jakarta.
3. Gunawan., Aji, F., Nursalim, T., Permana, D., Withaningsih, S. 2021. Comparative Study of Released Javan Hawk-Eagle (*Nisaetus bartelsi*) and Changeable Hawk-Eagle (*Nisaetus cirrhatus*) Based on Satellite Tracker Data. *E3S Web of Conference*, 249.
4. Husodo, Teguh., Megantara, E.N., Mutaqin, A.Z., Kendaro, D.R., Withaningsih, S., Wulandari, I., Shanida, S.S., Febrianto, P. 2024. Rare, Endangered, Endemic, and Protected Species (REEPS) conservation in the Cisokan forest patches, West Java, Indonesia. *Biodiversitas*, 25:12 (5094-5102). 10.13057/biodiv/d251247
5. Ines Omann, Andrea Stocker, Jill Jager. 2009. Climate Changes as a Threat to Biodiversity : An Application of the DPSIR Approach. *Ecological Economics*. Elsevier.
6. Megantara, E.N., Husodo, T., Kendaro, D.R., Mutaqin, A.Z., Withaningsih, S., Wulandari, I., Shanida, S.S., Febrianto, P., Hendrawan, R. 2024. Records of Java mouse-deer (*Tragulus javanicus* Gmelin, 1788) in the Cisokan forest patches, West Java, Indonesia. *Biodiversitas*, 25:8 (2713-2719). 10.13057/biodiv/d250844
7. Jocelyn F, Jacques L, Paul C, Max D , Pascal M. 2010. Managing Agricultural Change for Biodiversity Conservation in a Mediterraanean upland. *Biological Conservation*. Elsevier.
8. Joshua J Lawler. 2009. Climate Change Adaptation Strategies for Resources Management and Conservation Planning. *The Year in Ecology and Conservation Biology*. New York Academy of Sciences.
9. Marcelo Tabarelli. 2010. Tropical Biodiversity in Human-Modified Landscape : What is our Trump Card. *Biotropica*.
10. Vermeulen, S dan Koziell, I. 2002. Integrating Global and Local Values. A review of Biodiversity Assessment. International Institute for Environment and Development, London. UK.
11. Withaningsih, S., Parikesit., Nurislamidini, H. 2021. Management strategies of palm sugar (*arenga pinnata*) production on extreme landscapes of rongga, west bandung regency. *International Journal of Conservation Science*, 12:2 (625-640).
12. Withaningsih, S., Ilham, M.F., Rosdianto, A.M. 2024. Morphometric and DNA sexing accurately in male Javan hawk-eagle (*Nisaetus bartelsi*) determination at Kamojang Eagle Conservation Center, West Java, Indonesia. *Biodiversitas*, 25:3 (1167-1173). 10.13057/biodiv/d250332
13. Wright, S.J. 2005. Tropical Forests in a Changing Environment. *Trends Ecol. Evol.* 20 : 553-560.