



Univerza v Mariboru

Fakulteta za naravoslovje
in matematiko

UČNI NAČRT PREDMETA / COURSE SYLLABUS

Predmet:	Varstvena biologija
Course title:	Conservation Biology

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Biologija in ekologija z naravovarstvom, 2.stopnja		1.	2.
Biology and Ecology with Nature Conservation, 2 nd cycle		1st	2nd

Vrsta predmeta / Course type

Univerzitetna koda predmeta / University course code:

Predavanja Lectures	Seminar Seminar	Sem. vaje Tutorial	Lab. vaje Laboratory work	Teren. vaje Field work	Samost. delo Individ. work	ECTS
30	15			30	105	6

Nosilec predmeta / Lecturer:

Jeziki / Predavanja / Lectures:
Languages: Vaje / Tutorial:

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:
Prerequisites:

Vsebina:

- Osnove varstvene biologije
- Koncept vrst in varstvena biologija
- Globalna in regionalna pestrost organizmov
- Izguba in ogrožanje biodiverzitete
- Monitoring biodiverzitete
- Upravljanje z naravnimi habitati
- Upravljanje z vrstami
- Trajnost in upravljanje s polnaravnimi habitati
- Ekološka vnovična vzpostavitev ugodnega stanja

Content (Syllabus outline):

- Principles of conservation biology
- The species concept and conservation biology
- Global and regional biodiversity
- Losses and threats of biodiversity
- Monitoring of biodiversity
- Management of natural habitats
- Management of species
- Sustainability, and the management of semi natural habitats
- Ecological restoration

Temeljni literatura in viri / Readings:**Temeljna literatura / Basic readings:**

- Sodhi N.S., Ehrlich P.R., 2010 (updated 2023): Conservation Biology for All. Oxford University press. <https://conbio.org/publications/free-textbook/>
- Kryštufek, B., 1999: Osnove varstvene biologije. Tehniška založba Slovenije.

Priporočena literatura/ Recommended literature:

- Fišer, Ž., Šajna, N., et al. Conserve plants: an integrated approach to conservation of threatened plants for the 21st century. Research Ideas and Outcomes. [Spletna izd.]. 25 Jan. 2021, vol. 7, str. 1-29. ISSN 2367-7163. <https://riojournal.com/article/62810/element/8/105650//>.
- Ausden M., 2007: Habitat Management for Conservation: A Handbook of Techniques. Oxford.
- Rannow S., Neubert M., 2014: Managing protected areas in Central and Eastern Europe under climate change, (Advances in global change research 58). Springer.

Revija/Journal:

- Conservation Biology (Online ISSN: 1523-1739) – izbrani članki / selected articles
- Biological Conservation (ISSN: 0006-3207; Elsevier) – izbrani članki / selected articles

Cilji in kompetence:

- Pojasnitev temeljev biodiverzitetnih procesov.
- Uporaba metod merjenja in spremljanja biodiverzitete.
- Načrtovanje postopkov upravljanja z naravnimi ter polnaravnimi habitati in vrstami.
- Ovrednotenje dejavnikov ogrožanja z zmanjševanjem in izolacijo populacij.

Objectives and competences:

- Explanation of elemental knowledge on biodiversity processes.
- Use of measuring methods and monitoring of biodiversity.
- Planning of procedures of managing natural and semi-natural habitats and species.
- Evaluation of threatening factors for decline and isolation of populations.

Predvideni študijski rezultati:

- Po uspešno opravljenih obveznostih predmeta bodo Pojasniti biodiverzitetne procese;
- načrtovanje, izvedbe in vrednotenja monitoringa biodiverzitete;
- diskutirati o postopkih upravljanja habitatov, vrst;
- prepoznavati in reševati naravovarstvene problematike.

Intended learning outcomes:

- At the end of the course a successful student will be able to: explain biodiversity processes;
- planning, executing and evaluating of biodiversity monitoring;
- discuss procedures of habitat and species management;
- recognize and solve nature conservational issues.

Metode poučevanja in učenja:

- Predavanja
- Seminarske vaje
- Terenske vaje
- Individualno delo

Learning and teaching methods:

- Lectures
- Seminar
- Field work
- Individual work

Načini ocenjevanja:

- | Način (pisni izpit, ustno izpraševanje, naloge, projekt): | Delež (v %) /
Weight (in %) | Assessment: |
|--|--------------------------------|--|
| <ul style="list-style-type: none"> • Terensko delo (prisotnost, pisni test) pogoj za pristop k izpitu | 5% | Type (examination, oral, coursework, project): <ul style="list-style-type: none"> • Field work (attendance, written exam) mandatory for final exam • Seminar work and presentation • Written exam |
| <ul style="list-style-type: none"> • Seminarsko delo in predstavitev | 15% | |
| <ul style="list-style-type: none"> • Pisni izpit | 80% | |

Reference nosilca / Lecturer's references:

- Nina Šajna
- ŠIPEK, Mirjana, KUTNAR, Lado, MARINŠEK, Aleksander, ŠAJNA, Nina. Contrasting responses of alien and ancient forest indicator plant species to fragmentation process in the temperate lowland forests. *Plants*. Dec. 2022, vol. 11, iss. 23, 13
- ŠAJNA, Nina, PERKOVIČ, Kaja, PAUŠIČ, Igor. *Nigritella lithopolitanica* Ravnik (Orchidaceae) : morphological and ecological differences among populations and factors contributing to its endangerment. *Botany Letters*. 2020, vol. 167, iss. 3, str. 353-362

ŠIPEK, Mirjana, ŠAJNA, Nina. Public opinions and perceptions of peri-urban plant invasion: the role of garden waste disposal in forest fragments. *Management of Biological Invasions*. Nov. 2020, vol. 11, iss. 4, str. 733-746.

Boris Kryštufek

YOUSEFI, Masoud, MAHMOUDI, Ahmad, KAFASH, Anooshe, KHANI, Ali, KRYŠTUFEK, Boris. Biogeography of rodents in Iran : species richness, elevational distribution and their environmental correlates. *Mammalia*. Mar. 2022, vol. 86, iss. 4, str. 309-320

MAHMOUDI, Ahmad, KRYŠTUFEK, Boris, SLUDSKY, Alexander, SCHMID, Boris V., ALMEIDA, Alzira M P de, LEI, Xu, RAMASINDRAZANA, Beza, BERTHERAT, Eric, YESZHANOV, Aidyn, STENSETH, Nils Christian, MOSTAFAVI, Ehsan. Plague reservoir species throughout the world. *Integrative zoology*. Nov. 2021, vol. 16, iss. 6, str. 820-833

DIANAT, Malahat, VOET, Inessa, ORTIZ, David, GOÛY DE BELLOCQ, Joëlle, CUYPERS, Laura N., KRYŠTUFEK, Boris, BUREŠ, Michal, ČÍŽKOVÁ, Dagmar, BRYJOVÁ, Anna, BRYJA, Josef, NICOLAS, Violaine, KONEČNÝ, Adam. Cryptic diversity of Crocidura shrews in the savannahs of eastern and southern Africa. *Molecular phylogenetics and evolution*. Mar. 2023, vol. 180, str. 1-17