



Univerza v Mariboru

Fakulteta za naravoslovje  
in matematiko

### UČNI NAČRT PREDMETA / COURSE SYLLABUS

<b>Predmet:</b>	<b>Izbrana poglavja iz varstvene biologije</b>
<b>Course title:</b>	<b>Selected Topics in Conservation Biology</b>

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Doktorski študij Ekološke znanosti, 3. stopnja		1. ali 2.; 1st or 2nd	1.- 4.; 1st-4th
Doctoral Study Ecological Sciences, 3rd degree			

Vrsta predmeta / Course type: Izbirni/Elective

Univerzitetna koda predmeta / University course code:

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Lab. vaje Laboratory work	Terenske vaje Field work	Samost. delo Individ. work	ECTS
20	10				150	6

Nosilec predmeta / Lecturer: Boris KRYŠTUFEK

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

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

Poznavanje biologije, ekologije in biodiverzitet na ravni drugostopenjskega programa

**Prerequisites:**

Knowledge of biology, ecology and biodiversity at master level

**Vsebina:**

Obravnavana so izbrana poglavja iz naslednjih sklopov. -Koncept vrst in varstvena biologija  
-Globalna in regionalna pestrost organizmov  
-Izguba in ogrožanje biodiverzitet  
-Monitoring biodiverzitet  
-Upravljanje z naravnimi habitati  
-Upravljanje z vrstami  
-Trajnost in upravljanje s semi-naravnimi habitati  
-Ekološko restavriranje

**Content (Syllabus outline):**

Selected topics in the following chapters are discussed.  
-The species concept and conservation  
-Global and regional biodiversity  
-Losses and threats of biodiversity  
-Monitoring of biodiversity  
-Management of natural habitats  
-Management of species  
-Sustainability, and the management of seminatu

-Okoljska ekonomika, zakonodaja in izobraževanje

ral habitats -Ecological restoration  
-Environmental economics, law and education

#### Temeljni literatura in viri / Readings:

- Kryštufek, B., 1999: Osnove varstvene biologije. Tehniška založba Slovenije. Ljubljana.
- MacDonald, D., Service, K. 2007: Key Topics in Conservation Biology. Oxford Univ. Press  
<http://www.gci.org.uk/Documents/Key-Topics-in-Conservation-Biology.pdf>
- Primack, R.B., Sher, A.A. 2016: An introduction to conservation biology. Sinauer Ass. Press, Sunderland  
[https://www.sinauer.com/media/wysiwyg/samples/Primack\\_and\\_Sher\\_brochure.pdf](https://www.sinauer.com/media/wysiwyg/samples/Primack_and_Sher_brochure.pdf)
- Sodhi, N.S., Ehrlich, P.R. 2010: Conservation Biology for All. Oxford Univ. Press  
<http://ukcatalogue.oup.com/product/9780199554249.do>

#### Cilji in kompetence:

Razumevanje biodiverzitetnih vzorcev  
Razumevanje biodiverzitetnih procesov  
Razumevanje biodiverzitetne krize  
Poznavanje metod merjenja in spremljanja biodiverzitete  
Poznavanje postopkov upravljanja z naravnimi ter semi-naravnimi habitati in vrstami  
Podrobno poznavanje naravovarstvene zakonodaje

#### Objectives and competences:

Acquire knowledge on biodiversity patterns  
Acquire knowledge on biodiversity processes  
Acquire knowledge on biodiversity crisis  
Advanced knowledge of measuring methods and monitoring of biodiversity  
Advanced knowledge of procedures of managing natural and semi-natural habitats and species  
Advanced knowledge of nature conservation legislation

#### Predvideni študijski rezultati:

##### Znanje in razumevanje:

Študenti

- Osvojijo podrobno znanje o biodiverzitetnih procesih
- Znajo podrobno načrtovati, izvesti in vrednotiti monitoring biodiverzitete
- Podrobno razumejo postopke upravljanja habitatov, vrst
- Podrobno poznajo pravne predpise s področja naravovarstva in biodiverzitete

##### Prenosljive/ključne spretnosti in drugi atributi:

- Vrhunska sposobnost prepoznavanja in reševanja naravovarstvene problematike
- Vrhunska sposobnost načrtovanja, izvajanja

#### Intended learning outcomes:

##### Knowledge and understanding:

Students:

- Acquire Advanced knowledge on biodiversity processes
- Know how to plan, execute and evaluate biodiversity monitoring.
- Understand in detail procedures of habitat and species management
- Know in detail nature conservation and biodiversity legislation

##### Transferable/Key Skills and other attributes:

- Top-level ability to recognize and solve nature conservation problems
- Top-level ability to plan, execute and evaluate biodiversity monitoring

a in vrednotenja biodiverzitetnega monitoringa • Vrhunska usposobljenost upravljanja in presojanja vplivov na habitate in populacije posameznih vrst	• Top-level ability to provide management and judge the effects on habitats and populations of selected species
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**Metode poučevanja in učenja:**

**Learning and teaching methods:**

Predavanja Seminarske vaje	Lectures Seminar exercise
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Delež (v %) /

**Načini ocenjevanja:**

Weight (in %)

**Assessment:**

Pisni izpit	100%	Written examination
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**Reference nosilca / Lecturer's references:**

KRYŠTUFEK, Boris, JANŽEKovič, Franc, HUTTERER, Rainer, KLENOVŠEK, Tina. Morphological evolution of the skull in closely related bandicoot rats : a comparative study using geometric morphometrics. *Hystrix*, ISSN 0394-1914, 2016, vol. 27, no. 2, str. 1-7, ilustr., doi: [10.4404/hystrix-27.2-11639](https://doi.org/10.4404/hystrix-27.2-11639). [COBISS.SI-ID [22920456](https://www.cobiss.si/id/22920456)]

AL SAYEGH-PETKOVŠEK, Samar, KOPUŠAR, Nataša, TOME, Davorin, KRYŠTUFEK, Boris. Risk assessment of metals and PAHs for receptor organisms in differently polluted areas in Slovenia. *Science of the total environment*, ISSN 0048-9697, 2015, vol. 532, str. 404-414, ilustr. <http://dx.doi.org/10.1016/j.scitotenv.2015.05.0760048-9697>, doi: [10.1016/j.scitotenv.2015.05.076](https://doi.org/10.1016/j.scitotenv.2015.05.076). [COBISS.SI-ID [1221078](https://www.cobiss.si/id/1221078)]

KRYŠTUFEK, Boris, ABRAMSON, N. I., KOTROŠAN, Dražen. Rescue Eastern Europe's collections : correspondence. *Nature*, ISSN 1476-4687. [Online ed.], 19. feb. 2015, letn. 518, 303, [1] str. <http://www.nature.com/nature/journal/v518/n7539/full/518303b.html>, doi: [doi:10.1038/518303b](https://doi.org/10.1038/518303b). [COBISS.SI-ID [1462261](https://www.cobiss.si/id/1462261)]

KOREN, Toni, JELIĆ, Mišel, KRYŠTUFEK, Boris. Mitochondrial sequences yield new insight into the Quaternary history of the edible dormouse on the landbridge Adriatic islands. *Mammalian biology*, ISSN 1616-5047, 2015, vol. 80, issue 2, str. 128-134, ilustr. <http://www.sciencedirect.com/science/article/pii/S1616504714000688>, doi: [10.1016/j.mambio.2014.07.007](https://doi.org/10.1016/j.mambio.2014.07.007). [COBISS.SI-ID [1536854980](https://www.cobiss.si/id/1536854980)]

KRYŠTUFEK, Boris, KLENOVŠEK, Tina, AMORI, Giovanni, JANŽEKovič, Franc. Captured in "continental archipelago" : phylogenetic and environmental framework of cranial variation in the European snow vole. *Journal of zoology*, ISSN 0952-8369, 2015, vol. 297, iss. 4, str. 270-277, doi: [10.1111/jzo.12274](https://doi.org/10.1111/jzo.12274). [COBISS.SI-ID [21572872](https://www.cobiss.si/id/21572872)]

L SAYEGH-PETKOVŠEK, Samar, KOPUŠAR, Nataša, KRYŠTUFEK, Boris. Small mammals as biomonitors of metal pollution : a case study in Slovenia. *Environmental monitoring and*

assessment, ISSN 0167-6369, 2014, vol. 186, iss. 7, str. 4261-4274, ilustr.

<http://dx.doi.org/10.1007/s10661-014-3696-7>, doi: [10.1007/s10661-014-3696-7](https://doi.org/10.1007/s10661-014-3696-7). [COBISS.SI-ID [1160406](#)]

NADERI, Gholamreza, KABOLI, Mohammad, KOREN, Toni, KARAMI, Mahmoud, ZUPAN, Sara, REZAEI, Hamid R., KRYŠTUFEK, Boris. Mitochondrial evidence uncovers a refugium for the fat dormouse (*Glis glis* Linnaeus, 1766) in Hyrcanian forests of northern Iran. *Mammalian biology*, ISSN 1616-5047, 2014, vol. 79, issue 3, str. 202-207.

<http://www.sciencedirect.com/science/article/pii/S1616504713002358>, doi: [10.1016/j.mambio.2013.12.001](https://doi.org/10.1016/j.mambio.2013.12.001). [COBISS.SI-ID [1536236484](#)]

CHIŠAMERA, Gabriel, BUŽAN, Elena, SAHLEAN, Tiberiu, MURARIU, Dumitru, ZUPAN, Sara, KRYŠTUFEK, Boris. Bukovina blind mole rat *Spalax graecus* revisited : phylogenetics, morphology, taxonomy, habitat associations and conservation. *Mammal review*, ISSN 0305-1838, 2014, vol. 44, iss. 1, str. 19-29, ilustr., zvd. <http://onlinelibrary.wiley.com/doi/10.1111/mam.12001/pdf>, doi: [10.1111/mam.12001](https://doi.org/10.1111/mam.12001). [COBISS.SI-ID [2373843](#)]

BUŽAN, Elena, BRYJA, Josef, ZEMANOVÁ, Barbora, KRYŠTUFEK, Boris. Population genetics of chamois in the contact zone between the Alps and the Dinaric Mountains : uncovering the role of habitat fragmentation and past management. *Conservation Genetics*, ISSN 1566-0621. [Tiskana izd.], 2013, vol. 14, issue 2, str. 401-412, graf. prikazi.

<http://link.springer.com/article/10.1007/s10592-013-0469-8>, doi: [10.1007/s10592-013-0469-8](https://doi.org/10.1007/s10592-013-0469-8). [COBISS.SI-ID [2365395](#)]

KLENOVŠEK, Tina, KRYŠTUFEK, Boris. An ontogenetic perspective on the study of sexual dimorphism, phylogenetic variability, and allometry of the skull of European ground squirrel, *Spermophilus citellus* (Linnaeus, 1766). *Zoomorphology*, ISSN 0720-213X, 2013, vol. 132, iss. 4, str. 433-445, doi: [10.1007/s00435-013-0196-1](https://doi.org/10.1007/s00435-013-0196-1). [COBISS.SI-ID [19948296](#)]

KRYŠTUFEK, Boris, GLASNOVIĆ, Peter, PETKOVSKI, Svetozar. The status of a rare phylogeographic lineage of the vulnerable European souslik *Spermophilus citellus*, endemic to central Macedonia. *Oryx*, ISSN 0030-6053, 2012, vol. 46, iss. 3, str. 442-445, zvd.

<http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=8555600&fulltextType=BT&fileId=S003060531200004X>, doi: [10.1017/S003060531200004X](https://doi.org/10.1017/S003060531200004X). [COBISS.SI-ID [2208979](#)]

KRYŠTUFEK, Boris, IVANITSKAYA, Elena, ARSLAN, Atila, ARSLAN, Emine, BUŽAN, Elena. Evolutionary history of mole rats (genus *Nannospalax*) inferred from mitochondrial cytochrome b sequence. *Biological journal of the Linnean Society*, ISSN 0024-4066. [Print ed.], 2012, vol. 105, iss. 2, str. 446-455, zvd., graf. prikazi. <http://onlinelibrary.wiley.com/doi/10.1111/j.1095-8312.2011.01795.x/full>, doi: [10.1111/j.1095-8312.2011.01795.x](https://doi.org/10.1111/j.1095-8312.2011.01795.x). [COBISS.SI-ID [2117075](#)]