Univerza v Mariboru

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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, 2nd Level	**/**	**1**	**2**

Vrsta predmeta / Course type Obvezen / obligatory

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: Mitja Kaligarič, Boris Kryštufek

Jeziki / Languages:		
	Predavanja / Lectures:	**Slovenski/Slovenian**
	Vaje / Tutorial:	**Slovenski/Slovenian**

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:	**Prerequisits:**
Jih ni.	No.

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 semi
- Ekološko restavriranje
- Okoljska ekonomika, zakonodaja in izobraževanje

Content (Syllabus outline):

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

Temeljni literatura in viri / Readings:

Groombridge, B. (Ur.), 1992: Global Biodiversity.
Hall. London.
Hambler, C., 2004: Conservation. Cambridge University Press. Cambridge. Kryštufek, B., 1999: Osnove varstvene biologije. Tehniška založba Slovenije. Ljubljana.
Meffe, G. K., C. R. Caroll, 1997. Principles of conservation biology. Sinauer Associates. Massachusetts
Primack, R., P., 2010: Essentials of Conservation Biology,

Cilji in kompetence:

Poznavanje temeljev biodiverzitetnih procesov
Poznavanje metod merjenja in spremljanja Biodiverzitete
Poznavanje postopkov upravljanja z naravnimi ter semi-naravnimi habitati in vrstami
Poznavanje naravovarstvene zakonodaje

Objectives and competences:

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

Predvideni študijski rezultati:

Znanje in razumevanje:
Študenti
Usvojijo znanje o biodiverzitetnih procesih
Znajo načrtovati, izvesti in vrednotiti monitoring biodiverzitete
Razumejo postopke upravljanja habitatov, vrst
Poznajo pravne predpise s področja naravovarstva in biodiverzitete

Prenesljive/ključne spretnosti in drugi atributi:
Sposobnost prepoznavanja in reševanja naravovarstvene problematike
Sposobnost načrtovanja, izvajanja in vrednotenja biodiverzitetnega monitoringa
Sposobnost upravljanja in presojanja vplivov na habitate in populacije posameznih vrst

Intended learning outcomes:

Knowledge and Understanding:
Students:
Acquire knowledge on biodivirsty processes
Know how to plan, execute and evaluate biodiversity monitoring.
Understand procedures of habitat and species management
Know nature conservation and biodiversity Legislation

Transferable/Key Skills and other attributes:
Ability to recognize and solve nature conservation problems
Ability to plan, execute and evaluate biodiversity monitoring
Abilitiy to provide management and judge the effects on habitats and populations of selected species

Metode poučevanja in učenja:	**Learning and teaching methods:**
Predavanja Seminarske vaje Terenske vaje	Lecutres Seminar exercises Field exercises

Načini ocenjevanja:	Delež (v %) / Weight (in %)	**Assessment:**
Način (pisni izpit, ustno izpraševanje, naloge, projekt) - Seminarska naloga in njena javna predstavitev - Pisni izpit	**50** **50**	Type (examination, oral, coursework, project): - Seminar work and public presentation on it - Written exam

Reference nosilca / Lecturer's references:

Mitja Kaligarič:

PIPENBAHER, Nataša, KALIGARIČ, Mitja, ŠKORNIK, Sonja. Floristic and functional comparision of karst pastures and karst meadows from the North Adriatic Karst = Floristična in funkcionalna primerjava kraških pašnikov in kraških travnikov severnojadranskega Krasa. *Acta carsol.*, 2011, letn. 40, št. 3, str. 515-525.

KALIGARIČ, Mitja, MEISTER, Margit H., ŠKORNIK, Sonja, ŠAJNA, Nina, KRAMBERGER, Branko, BOLHÁR-NORDENKAMPF, Harald R. Grassland succession is mediated by umbelliferous colonizers showing allelopathic potential. *Plant Biosyst. (Firenze, Testo stamp.)*, 2011, vol. 145, no. 3, str. 688-698, ilustr.

ŠKORNIK, Sonja, VIDRIH, Matej, KALIGARIČ, Mitja. The effect of grazing pressure on species richness, composition and productivity in North Adriatic Karst pastures. *Plant Biosyst. (Firenze, Testo stamp.)*, 2010, vol. 144, no. 2, str. 355-364, ilustr.

ŠKORNIK, Sonja, ŠAJNA, Nina, KRAMBERGER, Branko, KALIGARIČ, Simona, KALIGARIČ, Mitja. Last remnants of riparian wooded meadows along the middle Drava River (Slovenia) : species composition is a response to light conditions and management. *Folia geobot.*, dec. 2008, vol. 43, no. 4, str. 431-445.

Boris Kryštufek:

KRYŠTUFEK, Boris, LUŽNIK, Martina, VARLJEN BUŽAN, Elena. Mitochondrial cytochrome b sequences resolve the taxonomy of field mice (Apodemus) in the western Balkan refugium. *Acta Theriol.*, 2012, vol. 57, no. 1, str. 1-7, graf. prikazi, zvd.

KRYŠTUFEK, Boris, IVANITSKAYA, Elena, ARSLAN, Atilla, ARSLAN, Emine, VARLJEN BUŽAN, Elena. Evolutionary history of mole rats (genus Nannospalax) inferred from mitochondrial cytochrome b sequence. *Biol. J. Linn. Soc.*.

KRYŠTUFEK, Boris, KLENOVŠEK, Tina, VARLJEN BUŽAN, Elena, LOY, Anna, JANŽEKOVIČ, Franc. Cranial divergence among evolutionary lineages of Martino's vole, Dinaromys bogdanovi, a rare Balkan paleoendemic rodent. *J. mammal.*, 2012, vol. 93, iss. 3, str. 818-825

KRYŠTUFEK, Boris, ZORENKO, Tanya, VARLJEN BUŽAN, Elena. New insights into the taxonomy and phylogeny of social voles inferred from mitochondrial cytochrome b sequences. *Mamm. biol.*, 2012, vol. 77, issue 3, str. 178-182, graf prikazi.

LUŽNIK, Martina, VARLJEN BUŽAN, Elena, KRYŠTUFEK, Boris. Mitochondrial sequences do not support the independent taxonomic position of the extinct Alpine newt subspecies Mesotriton alpestris lacusnigri. *Amphib-reptil.*, 2011, vol. 32, issue 3, str. 435-440, graf. Prikaz

KRYŠTUFEK, Boris, REŽEK DONEV, Nataša, SKOK, Janko. Species richness and distribution of non-volant small mammals along an elevational gradient on a Mediterranean mountain. *Mammalia (Paris)*, 2011, vol. 75, iss. 1, str. 3-11

VARLJEN BUŽAN, Elena, PAGÈS, Marie, MICHAUX, Johan, KRYŠTUFEK, Boris. Phylogenetic position of the Ohiya rat (Srilankamys ohiensis) based on mitochondrial and nuclear gene sequence analysis. *Zool. scr.*, 2011, vol. 40, issue 6, str. 545-553.

VARLJEN BUŽAN, Elena, FÖRSTER, Daniel W., SEARLE, Jeremy B., KRYŠTUFEK, Boris. A new cytochrome b phylogroup of the common vole (Microtus arvalis) endemic to the Balkans and its implications for the evolutionary history of the species. *Biol. J. Linn. Soc.*. [Print ed.], 2010, vol. 100, iss. 4, str. 788-796, ilustr