Univerza v Mariboru

Fakulteta za naravoslovje in matematiko

UČNI NAČRT PREDMETA / COURSE SYLLABUS	
Predmet:	**Izbrana poglavja iz predatorskega vedenja**
Course title:	**Selected Topics in Predatory Behaviour**

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
15	5		10		150	6

Nosilec predmeta / Lecturer: Vesna KLOKOČOVNIK

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

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:	**Prerequisits:**
Poznavanje fiziologije in ekologije na ravni univerzitetnega programa ter eksperimentalnih metod v fiziologiji na ravni drugostopenskega programa	Knowledge of physiology and ecology at graduate level, and Knowledge of experimental methods in physiology at master level

Vsebina: **Content (Syllabus outline):**

Obravnavana so izbrana poglavja iz naslednjih sklopov. - Zaznavanje plena in njegovo prepoznavanje - Teorija optimalnega iskanja hrane - Predator in učinkovitost iskanja hrane - Vpliv predatorjev in kompetitorjev na optimalno iskanje hrane - Lov plena; socialnost in lov večjega plena - Prilagoditve plena na predatorje: zmanjšanje možnosti zaznavanja; zmanjšanje možnosti napada; zmanjšanje možnosti ulova; zmanjšanje možnosti konzumiranja	- Detecting prey and its recognition - Theory of optimal foraging - Predator and foraging efficiency - Role of predators and competitors in optimal foraging - Capturing prey; Sociality and the capture of large prey - Coping with predators adaptively: Making detection less likely. Making an attack less likely. Making capture less likely. Making consumption less likely.

Temeljni literatura in viri / Readings:

- Alcock, J., (2013). Animal behavior: an evolutionaryapproach. 10th ed. Freeman, Sunderland.
- Foelix, R. F. (2011). Biology of spiders. Oxford University Press.
- Herberstein, M. E. (2011). Spider behaviour : flexibility and versatility. Cambridge University Press.
- McFarland, D. (1999). Animal Behaviour : Psychobiology, ethology and evolution. Pearson: Prentice Hall.
- Dugatkin, L. A. (ed.), (2001). Model systems in behavioral ecology. Princeton University Press, Princeton

Cilji in kompetence:	**Objectives and competences:**
Študenti: - Podrobno razumejo metode študija vedenja - Podrobno usvojijo znanja za raziskovanje kompleksnosti predatorskega vedenja - Podrobno razumejo evolucijsko spreminjanje predatorskega vedenja - Podrobno spoznajo vlogo predatorjev za evolucijo/ selekcijo plena	Students: - Understand advanced methods used in behavioural studies - Acquire advanced knowledge necessary to study complexity of predatory behaviour - Understand in detail evolutionary trends in predatory behaviour - Get acquainted in detail with the role of predators in prey evolution/selection

Predvideni študijski rezultati:	**Intended learning outcomes:**
Znanje in razumevanje: Študenti: - Podrobno razumejo povezavo med predatorskim vedenjem in evolucijo - Podrobno spoznajo kompleksnost predatorskega vedenja - Podrobno razumejo živčne osnove vedenja - Podrobno razumejo adaptivno vlogo plastičnosti predatorskega vedenja **Prenesljive/ključne spretnosti in drugi atributi:** - Sposobnost načrtovati in izvesti komleksne eksperimente za testiranje odzivov živali na kontrolirane spremembe v njenem okolju	**Knowledge and understanding:** Students: - Understand advanced connection between predatory bahaviour and evolution - Become advanced knowledge of the complexity of predatory behaviour - Understand in detail the neural basis of behaviour - Understand in detail the adaptive role of plasticity of predatory behaviour **Transferable/Key Skills and other attributes:** - Ability to arrange complex experiments testing behavioural responses of an animal to controlled changes of its environment

- Sposobnost ovrednotiti rezultate kompleksnega etološkega poskusa	- Ability to evaluate results of a complex behavioural experiment

Metode poučevanja in učenja: **Learning and teaching methods:**

- Predavanja - Seminar - Laboratorijske vaje – individualno eksperimentalno delo	- Lectures - Seminar - Laboratory excersises – individual experimental practice

Načini ocenjevanja:	Delež (v %) / Weight (in %)	**Assessment:**
- Kolokvij iz vaj	30 %	- Partial exam of experimental practice
- Seminarska naloga	30 %	- Seminar essay
- Pisni izpit	40 %	- Written exam

Reference nosilca / Lecturer's references:

KLOKOČOVNIK, Vesna, DEVETAK, Dušan. Pit-builder vs non-pit-builder : advantage of trap building strategy in antlion larvae does not mean greater behaviour diversity. *Behaviour*, ISSN 0005-7959, 2014, vol. 151, issue 5, str. 653-668, ilustr. http://booksandjournals.brillonline.com/content/journals/10.1163/1568539x-00003156, doi: 10.1163/1568539X-00003156. [COBISS.SI-ID 20356872], [JCR, SNIP, WoS do 17. 11. 2016: št. citatov (TC): 4, čistih citatov (CI): 1, Scopus do 27. 11. 2016: št. citatov (TC): 4, čistih citatov (CI): 1]
ZM - zoology ; 65/154 ; četrtina: 2 ; x=1.336 ; IFmin: 1.015 ; IFmax: 1.727

KLOKOČOVNIK, Vesna, HAUPTMAN, Gregor, DEVETAK, Dušan. Effect of substrate temperature on behavioural plasticity in antlion larvae.*Behaviour*, ISSN 0005-7959, 2016, vol. 153, issue 1, str. 31-48, doi: 10.1163/1568539X-00003322. [COBISS.SI-ID 21695496], [JCR, SNIP, WoS do 26. 12. 2015: št. citatov (TC): 0, čistih citatov (CI): 0, Scopus do 14. 3. 2016: št. citatov (TC): 0, čistih citatov (CI): 0]
ZM - zoology ; 58/161 ; četrtina: 2 ; x=1.262 ; IFmin: 0.989 ; IFmax: 1.655

KLOKOČOVNIK, Vesna, PODLESNIK, Jan, DEVETAK, Dušan. Occurrence of the antlion tribe Acanthaclisini in the Balkan Peninsula : (Neuroptera, Myrmeleontidae). *Spixiana*, ISSN 0341-8391, 2016, bd. 39, h. 1, str. 99-104, ilustr. [COBISS.SI-ID 22594568], [JCR, SNIP, WoS do 12. 11. 2016: št. citatov (TC): 0, čistih citatov (CI): 0, Scopus do 29. 10. 2016: št. citatov (TC): 0, čistih citatov (CI): 0]
ZM - zoology ; 117/161 ; četrtina: 3 ; x=1.262 ; IFmin: 0.615 ; IFmax: 0.971