Univerza v Mariboru

Fakulteta za naravoslovje in matematiko

UČNI NAČRT PREDMETA / COURSE SYLLABUS	
Predmet:	HABITATNI TIPI IN NATURA 2000
Course title:	HABITAT TYPES AND NATURA 2000

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Ekologija z naravovarstvom 1. St.		3.	5.
Ecology with Nature Conservation , Bch		3rd	5th

Vrsta predmeta / Course type Obvezni/ Obligatory

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
30	15	-		15	90	5

Nosilec predmeta / Lecturer: Mitja KALIGARIČ

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

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

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

• Opredelitev habitatov v kontekstu ekoloških znanosti. • Opredelitev in praktični pomen habitatnih tipov. • Biogeografske regije Evrope. • Biogeografska razdelitev Slovenije. • V EU utemeljene klasifikacije habitatov/biotopov: CORINE biotopi, EUNIS, PHYSIS, Nemške klasifikacije. • Tipologija evropskih in slovenskih habitatnih tipov: naravni habitati. • Tipologija evropskih in slovenskih habitatnih tipov: antropogeni habitati • FFH habitati (EU direktive in konvencije, ki se nanašajo na habitatne tipe). • Ogroženi habitati v EU in Sloveniji. • Omrežje Natura 2000 – zgodovinsko ozadje in evropska zakonodaja. • Mreža območij Natura 2000 v Evropi. • Ohranjanje ogroženih rastlinskih in živalskih vrst v območjih Natura 2000. • Kratek pregled kvalifikacijskih kriterijev za omrežje Natura 2000. • Natura 2000 v Sloveniji – kratek pregled. • Sobivanje človeka in narave v območjih Natura 2000.	• Definition of habitats in the context of ecological science. • Definition and practical meaning of habitat types • Biogeographic regions in Europe. • Biogeographical divisions of Slovenia. • EU-based classifications of habitats/biotopes: CORINE biotopes, EUNIS, PHYSIS, German classifications. • Typology of European and Slovenian habitat types: natural habitat types. • Typology of European and Slovenian types: anthropogenic habitat types. • FFH habitats (EU directives and conventions regarding habitat types). • Endangered habitats in EU and Slovenia. • Natura 2000 network – historical background and European legislation. • Natura 2000 network throughout Europe. • Conservation of endangered plant and animal species within the Natura 2000 areas. • Short review of qualification criteria for the Natura 2000 network. • Natura 2000 in Slovenia: short overview. • Coexistence of man and nature within the Natura 2000 areas.

Temeljni literatura in viri / Readings:

- Broom, G., 1999: Socio-economic Benefits from Natura 2000. The Stationary Office Books.
- Čušin, B. (ur.), 2004: Natura 2000 v Sloveniji. Založba ZRC SAZU, Ljubljana.
- Davies, C., D. Moos, 1998: Eunis HABITAT CLASSIFICATION. Europaean Environmental Agency.
- Europaean TC on nature conservation. Institute of Terrestrial Ecology Monks Wood, Huntingdon.
- Devilliers, P., J. Devilliers-Terchuren, 1996: A classification of palearctic habitats.
- Nature and Environment 78, Council of Europe, Strasbourg.
- Dierschke, H., 1994: Pflanzensoziologie. Verlag Eugen Ulmer Stuttgart.
- Dobson, A. P., 1996: Conservation and Biodiversity. New York, Scientific American Library.
- Ellenberg, H., 1996: Vegetation Mitteleuropas mit dem Alpen. 5. izd., Verlag Eugen Ulmer Stuttgart.
- Gellermann, M., 2003: Natura 2000: Europaeisches Habitatschutzrecht und seine Durchfuehrung in der Bundesrepublik Deutschland. Springer.
- Jogan, N., M. Kaligarič, M., I. Leskovar, A. Seliškar, J. Dobravec, 2004: Habitatni tipi Slovenije HTS 2004. Tipologija. Agencija republike Slovenije za okolje. Ljubljana.
- Mertz, P., 2000: Pflanzengesellschaften Mitteleuropas und der Alpen. Ecomed.

- Nelson, J. G, R. Safarin (Eds.), 1996: National Parks and Protected Areas: Keystones to Conservation and Sustainable Development. Springer Verlag.
- Pott, R., 1996: Biotoptypen. Ulmer Verlag, Stuttgart.
- Skoberne, P., 2004: Pregled mednarodnih organizacij in predpisov s področja varstva narave 2005, priročnik, inačica 9.1, Ministrstvo za okolje in prostor, Ljubljana.
- Thompson, G., 2002:. Natura 2000: a partnership for nature. Kluwer Law International.

Cilji in kompetence:

- Študenti se seznanijo z definicijami habitatov, habitatnih tipov in s palearktično klasifikacijo habitatnih tipov.
- Seznanijo se z biogeografskimi delitvami EU in Slovenije ter različnimi klasifikacijami habitatov/biotopov: CORINE, EUNIS, PHYSIS.
- Spoznajo glavne habitatne tipe v Evropi in Sloveniji, tako naravne kot antropogene.
- Spoznajo ogrožene habitatne tipe v EU (FFH HT) in v Sloveniji.
- Obvladati pomen Nature 2000 kot skupne evropske perspektive.
- Habitatna in »Ptičja« direktiva.
- Seznanitev s podrobno vsebino območij Natura 2000 v Sloveniji.
- Usposobitev za so-organiziranje sobivanja človekovega razvoja in hkrati varovanja vrst in habitatov v omrežju Natura 2000.

Objectives and competences:

- Students learn the definitions of habitats and habitat types. They learn the palearctic typology of habitat types.
- Students learn the biogeographic divisions of EU and Slovenia. They get insights of different classifications of habitats/biotopes: CORINE, PHYSIS, EUNIS.
- Students learn the most important habitat types in Europe and Slovenia, both natural and anthropogenic.
- Students learn about endangered habitat types in EU (FFH HT) and in Slovenia.
- To understand the meaning and purpuse of protected areas.
- To learn about Natura 2000 network as common European perspective.
- »Habitat directive« and »Bird« directive.
- To get a short overview on the content of Natura 2000 in Slovenia.
- To be able to co-organize coexistance of human developement, and protecton of species and their habitats within the Natura 2000 Network.

Predvideni študijski rezultati:

Znanje in razumevanje:

- Študent dobi pregled nad definicijami, tipologijo in razširjenostjo habitatnih tipov v EU in Sloveniji.
- Nauči se glavne habitatne tipe Slovenije, tako naravne kot antropogene.
- Seznani se z ogroženimi habitatnimi tipi v EU in Sloveniji.
- Študent dobi pregled nad zakonodajo, ki predpisuje omrežje Natura 2000 v EU in v Sloveniji.

Intended learning outcomes:

Knowledge and understanding:

- Students should get an overwiew on the definitions, typologies and distribution of habitat types within the EU and Slovenia.
- He/she learns the most important habitat types in Slovenia, both anthropogenic and natural.
- He/she gets knowledge about endangered habitat types in Slovenia and EU.

• Je sposoben razumeti pomen in vsebino območij Natura 2000 in sodelovati pri reševanju naravovarstvenega managementa in vprašanjih sobivanja v območjih Natura 2000.	• Student should get an overwiew on legislation, regulating the Natura 2000 network in EU and Slovenia. • He/she should be able to understand the content and meaning of the Natura 2000 sites and to be capable to cooperate in conservational management and co-existance issues within the Natura 2000 areas.
Prenesljive/ključne spretnosti in drugi atributi: • Študent usvoji znanje o habitatnih tipih, posebej še o ogroženih habitatnih tipih, ki so kriterij za definiranje območij Natura 2000. • Študent usvoji nekaj glavnih metod in dobi prakso v upravljanju zavarovanih območij.	**Transferable/Key Skills and other attributes:** • Student capture the most important knowledge about habitat types, especially endangered habitat types, which represent the criteria for the Natura 2000 network definition. • Student captures the most important methods and practices management within protected areas.

Metode poučevanja in učenja:	**Learning and teaching methods:**
• Predavanja • Seminar • Terenske vaje	• Lectures • Seminar • Field work

Načini ocenjevanja:	Delež (v %) / Weight (in %)	**Assessment:**
Praktični kolokvij	**30**	Practical examination
Seminarska naloga – pisna	**20**	Seminar exercise - written
Ustni izpit	**50**	Oral examination

Reference nosilca / Lecturer's references:

PAUŠIČ, Igor, IVAJNŠIČ, Danijel, KALIGARIČ, Mitja, PIPENBAHER, Nataša. Relation between plant species diversity and landscape variables in Central-European dry grassland fragments and their successional derivates. *Acta botanica Croatica : an international joural of botany*, ISSN 0365-0588, 2017, vol. 76, iss. 2, str. 111-119.

IVAJNŠIČ, Danijel, LIPEJ, Lovrenc, ŠKORNIK, Iztok, KALIGARIČ, Mitja. The sea level rise impact on four seashore breeding birds: the key study of Sečovlje Salina Nature Park. *Climatic change*, ISSN 0165-0009, 2017, vol. 140, iss. 3-4, str. 549-562.

AMBROŽIČ-DOLINŠEK, Jana, CIRINGER, Terezija, KALIGARIČ, Mitja. Micropropagation of the narrow endemic Hladnikia pastinacifolia (Apiaceae). *Acta botanica Croatica : an international joural of botany*, ISSN 0365-0588, 2016, vol. 75, iss. 2, str. 244-252.

ŠKORNIK, Sonja, MEZNARIČ, Marija, KALIGARIČ, Mitja. Functional composition of mid-stream gravel bar vegetation (Middle Drava River, NE Slovenia). *Annales : anali za istrske in mediteranske študije, Series historia naturalis*, ISSN 1408-533X. [Tiskana izd.], 2016, letn. 26, št. 2, str. 171-182.

IVAJNŠIČ, Danijel, KALIGARIČ, Mitja. How to preserve coastal wetlands, threatened by climate change-driven rises in sea level. *Environmental management*, ISSN 0364-152X, 2014, vol. 54, iss. 4, str. 671-684.

KALIGARIČ, Mitja, IVAJNŠIČ, Danijel. Vanishing landscape of the "classic" Karst : changed landscape identity and projections for the future. *Landscape and urban planning*, ISSN 0169-2046. [Print ed.], 2014, vol. 132, str. 148-158.