



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. stopnje		3	5
Ecology with nature protection, 1st. degree			

Vrsta predmeta / Course type

obvezni / 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		15	120	180/6

Nosilec predmeta / Lecturer:

Mitja KALIGARIČ

Jeziki /

Languages:

Predavanja /

Lectures:

Slovenski /Slovenian

Vaje / Tutorial:

Slovenski /Slovenian

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

-Jih ni

Prerequisites:

-No

Vsebina:

Content (Syllabus outline):

1. Opredelitev habitatov v kontekstu ekoloških znanosti 2. Opredelitev in praktični pomen habitatnih tipov 3. Biogeografske regije Evrope 4. Biogeografska razdelitev Slovenije 5. V EU utemeljene klasifikacije habitatov/biotopov: CORINE biotopi, EUNIS, PHYSIS, Nemške klasifikacije 6. Tipologija evropskih in slovenskih habitatnih tipov: naravni habitati 7. Tipologija evropskih in slovenskih habitatnih tipov: antropogeni habitati 8. FFH habitati (EU direktive in konvencije, ki se nanašajo na habitatne tipe) 9. Ogroženi habitati v EU in Sloveniji 10. Omrežje Natura 2000 – zgodovinsko ozadje in evropska zakonodaja 11. Mreža območij Natura 2000 v Evropi 12. Ohranjanje ogroženih rastlinskih in živalskih vrst v območjih Natura 2000 13. Kratek pregled kvalifikacijskih kriterijev za omrežje Natura 2000 14. Natura 2000 v Sloveniji – kratek pregled 15. Sobivanje človeka in narave v območjih Natura 2000	1. Definition of habitats in the context of ecological science 2. Definition and practical meaning of habitat types 3. Biogeographic regions in Europe 4. Biogeographical divisions of Slovenia 5. EU-based classifications of habitats/biotopes: CORINE biotopes, EUNIS, PHYSIS, German classifications 6. Typology of European and Slovenian habitat types: natural habitat types 7. Typology of European and Slovenian habitat types: anthropogenic habitat types 8. FFH habitats (EU directives and conventions regarding habitat types) 9. Endangered habitats in EU and Slovenia 10. Natura 2000 network – historical background and European legislation. 11. Natura 2000 network throughout Europe. 12. Conservation of endangered plant and animal species within the Natura 2000 areas. 13. Short review of qualification criteria for the Natura 2000 network. 14. Natura 2000 in Slovenia: short overview. 15. Coexistence of man and nature within the Natura 2000 areas.
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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:

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

Objectives and competences:

1. Students learn the definitions of habitats and habitat types. They learn the palearctic typology of habitat types.
2. Students learn the biogeographic divisions of EU and Slovenia. They get insights of different classifications of habitats/biotopes: CORINE, PHYSIS, EUNIS.
3. Students learn the most important habitat types in Europe and Slovenia, both natural and anthropogenic.
4. Students learn about endangered habitat types in EU (FFH HT) and in Slovenia. To understand the meaning and purpose of protected areas.
5. To learn about Natura 2000 network as common European perspective – »Habitat directive« and »Bird« directive.
6. To get a short overview on the content of Natura 2000 in Slovenia.
7. To be able to co-organize coexistence of human development, and protection 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
- Seznanjeni se z ogroženimi habitatnimi tipi

Intended learning outcomes:

Knowledge and Understanding:

- Student should get an overview 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

v EU in Sloveniji • Študent dobi pregled nad zakonodajo, ki predpisuje omrežje Natura 2000 v EU in v Sloveniji • Je sposoben razumeti pomen in vsebino območij Natura 2000 in sodelovati pri reševanju naravovarstvenega managementa in vprašanjih sobivanja v območjih Natura 2000 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	endangered habitat types in Slovenia and EU • Student should get an overview 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-existence issues within the Natura 2000 areas. 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.
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Metode poučevanja in učenja:

- Predavanja
- Seminar
- Terenske vaje

Learning and teaching methods:

- 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:

- MASON, Norman W. H., PIPENBAHER, Nataša, ŠKORNIK, Sonja, KALIGARIČ, Mitja. Does complementarity in leaf phenology and inclination promote co-existence in a species-rich meadow? : evidence from functional groups. *J. veg. sci.*, Jan. 2013, vol. 24, iss. 1, str. 94-100, ilustr. <http://onlinelibrary.wiley.com.ezproxy.lib.ukm.si/doi/10.1111/j.1654-1103.2012.01451.x/pdf>, doi: [10.1111/j.1654-1103.2012.01451.x](https://doi.org/10.1111/j.1654-1103.2012.01451.x). [COBISS.SI-ID [19304968](https://cobiss.si/id/19304968)]
- PONGRAC, Paula, VOGEL-MIKUŠ, Katarina, REGVAR, Marjana, KALIGARIČ, Mitja, VAVPETIČ, Primož, KELEMEN, Mitja, GRLJ, Nataša, PELICON, Primož. On the distribution and evaluation of Na, Mg and Cl in leaves of selected halophytes. *Nucl. instrum. methods phys. res., B Beam*

interact. mater. atoms. [Print ed.], 2013, 6 str., [in press].

<http://www.sciencedirect.com/science/article/pii/S0168583X13000384>, doi:
[10.1016/j.nimb.2012.12.057](https://doi.org/10.1016/j.nimb.2012.12.057). [COBISS.SI-ID [2743119](#)]

- ŠAJNA, Nina, KAVAR, Tatjana, ŠUŠTAR VOZLIČ, Jelka, KALIGARIČ, Mitja. Population genetics of the narrow endemic *Hladnikia pastinacifolia* Rchb. (Apiaceae) indicates survival in situ during the Pleistocene. *Acta Biol. Crac., Ser. Bot.*, 2012, vol. 54, issue 1, str. 84-96, doi: [10.2478/v10182-012-0009-8](https://doi.org/10.2478/v10182-012-0009-8). [COBISS.SI-ID [19304712](#)]
- OTOPAL, Josip, KALIGARIČ, Mitja. Botanical rarities from Slovenian Istria : the influence of the Mediterranean edge. *Ann, Ser. hist. nat.*, 2012, letn. 22, št. 2, str. 139-144, ilustr. [COBISS.SI-ID [19627528](#)]
- PETRAS SACKL, Tina, KALIGARIČ, Mitja, IVAJNŠIČ, Danijel, ŠKORNIK, Sonja. Plant communities with yellow oat grass (*Trisetum flavescens* (L.) Pb.) in the submontane and montane regions of Slovenia. *Hacquetia*, 2012, vol. 11, no. 2, str. 179-207, ilustr., doi: [10.2478/v10028-012-0009-y](https://doi.org/10.2478/v10028-012-0009-y). [COBISS.SI-ID [19626504](#)]