



**OPIS PREDMETA / SUBJECT SPECIFICATION**

<b>Predmet:</b>	Izbrana poglavja iz gozdne entomologije
<b>Subject Title:</b>	Selected Topics in Forest Entomology

Študijski program Study programme	Študijska smer Study field	Letnik Year	Semester Semester
Doktorski študij Ekološke znanosti / Doctoral Study Ecological Sciences		Izbirni 1 ali 2 ali 3	2 ali 3 ali 4 ali 5

Univerzitetna koda predmeta / University subject code:

Predavanja Lectures	Seminar Seminar	Sem. vaje Tutorial	Lab. vaje Lab. work	Teren. vaje Field work	Samost. delo Individ. work	ECTS
5	5				140	5

Nosilec predmeta / Lecturer:

Jeziki / Predavanja / Lecture:   
Languages: Vaje / Tutorial:

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

**Vsebina:** **Contents (Syllabus outline):**

<p>Obravnavana so izbrana poglavja iz naslednjih sklopov. Pri predmetu študenti pridobijo podrobna znanja o taksonomiji, morfologiji, biologiji in ekologiji žuželk, ki živijo v gozdu. Spoznajo ekološko in ekonomsko pomembne vrste ter varstvo biodiverzitete žuželk.</p> <ul style="list-style-type: none"> <li>• Gozd kot primarni ekosistem (organizacija, delovanje, ekološke sukcesije biocenoz, zoocenoz, biotsko in ekološko ravnotežje, avtekologija ter demekologija žuželk)</li> <li>• Najpomembnejše skupine žuželk v gozdovih srednje Evrope ter njihov gospodarski pomen</li> <li>• Osnovne značilnosti skupin Apterygota ter Pterygota (Coleoptera: Scolytidae, Buprestidae, Cerambycidae, Curculionidae; Hymenoptera ter Lepidoptera)</li> <li>• Biologija in ekologija vrst, ki povzročajo motnje v gozdovih, predvsem s prehranjevanjem ter ukrepanje v smislu varstva gozda</li> <li>• Invazivne in karantenske vrste žuželk, ki so nevarni za naše gozdove</li> <li>• Varstvo biodiverzitete žuželk</li> </ul>	<p>Selected topics in the following chapters are discussed. Students learn taxonomy, morphology, biology and ecology of insects in forests in detail. They learn about ecologically and economically important species, and the insect diversity conservation.</p> <ul style="list-style-type: none"> <li>• A forest as a primary ecosystem (organization, functioning and ecological successions of biocenoses, zoocenoses, biotic and ecological equilibrium, autecology and demecology of insects)</li> <li>• The most important groups of insects in forests of central Europe and their economic importance</li> <li>• General characteristics of insects groups as Apterygota and Pterygota (Coleoptera: Scolytidae, Buprestidae, Cerambycidae, Curculionidae, Hymenoptera and Lepidoptera)</li> <li>• Biology and ecology of insects which cause disturbances in forests, particularly by feeding, and preventive measures in the sense of forest protection</li> <li>• Invasive and quarantine insects, which are dangerous for our forests</li> <li>• Insect diversity conservation</li> </ul>
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**Temeljni študijski viri / Textbooks:**

- Anderson, D. T. (ed.), 2001: Invertebrate zoology.- Second edition. Oxford University Press
- Freude, H., K. W. Harde, G. A. Lohse ( eds.), 1965-1984: Die Käfer Mitteleuropas.- Band I-XI, Goecke & Evers Verlag, Krefeld.
- Groom, M. J., G. K. Meffe, C. R. Carroll (Eds.), 2005: Principles of Conservation Biology.- Third Edition, Sinauer.
- Jurc, M., 2005: Gozdna zoologija.- 1. izdaja, Univerzitetni učbenik, Univerza v Ljubljani, Biotehniška fakulteta, Oddelek za gozdarstvo in obnovljive gozdne vire.
- Lieutier, F., K. R. Day, A. Battisti, J.-C. Grégoire, H. F. Evans, 2004: Bark and Wood Boring Insects in Living Trees in Europe, a Synthesis.- Kluwer Academic Publishers.
- Ruppert, E. E. and D. R. Barnes, 1996: Invertebrate zoology.- Sixth edition. Saunders College Publishing.
- Samways, M., 2005: Insect Diversity Conservation. Cambridge University Press.
- Speight, M. C. D., 1989: Saproxyllic invertebrates and their conservation. Strasbourg, Council of Europe.

**Cilji:**

- Podrobno spoznajo entomofavno gozdnega ekosistema, predvsem najpomembnejše herbivore vrste žuželk
- Z razumevanjem bionomije, avtekoologije in demekologije različnih žuželčnih vrst študentje podrobno spoznajo njihovo vlogo in pomen v gozdnem sistemu
- Podrobno razumejo potrebe po njihovem ohranjanju

**Predvideni študijski rezultati:****Znanje in razumevanje**

- Podrobno usvojijo znanja o živalski komponenti gozdnega ekosistema ter poglobljeno znanje o gozdni entomofavni
- S terenskim delom študentje podrobno spoznajo metode nabiranja entomološkega materiala, arhiviranja ter določanja žuželk
- Podrobno razumejo pomen entomofavne v biosferi in potrebe po njeni ohranitvi

**Prenesljive/ključne spretnosti in drugi atributi:**

- Podrobno povezovanje bioloških znanj in znanj varstvene biologije

**Metode poučevanja in učenja:**

- Predavanja
- Terenske vaje
- Seminarska naloga

**Načini ocenjevanja:**

- Seminarska naloga
- Pisni izpit

Delež (v %) /  
Weight (in %)50 %  
50 %**Objectives:**

- Perceiving of the entomofauna of the forest ecosystem in detail, including the most important herbivorous species of insects
- By understanding the bionomy, autecology, and demecology of various insect species in detail, students learn about their role and importance in forest system
- Understanding in detail the need for their conservation

**Intended learning outcomes:****Knowledge and Understanding**

- They acquire advanced knowledge of animal component of forest ecosystem and advanced knowledge of entomofauna
- During field work students learn in detail methods of collecting entomological material, making archives, and identifying insect species
- They understand in detail significance of entomofauna in biosphere, and needs for it conservation

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

- Combinig biological and conservation biology knowledge in detail

**Learning and teaching methods:**

- Lectures
- Field work
- Seminar essay

**Assessment:**

- Seminar essay
- Written exam

**Materialni pogoji za izvedbo predmeta :****Material conditions for subject realization**

- *Multimedijska predavalnica*
- *Trajne raziskovalne ploskve*

- *Lecture hall for multimedia presentation*
- *Permanent research plots*

**Students' commitments:**

**Obveznosti študentov:**

*(pisni, ustni izpit, naloge, projekti)*

- *Seminarska naloga*
- *Pisni izpit*

*(written, oral examination, coursework, projects):*

- *Seminar essay*
- *Written exam*