Name of the subject: INTRASPECIES VARIABILITY OF PLANTS

Teacher(s): Dr. Goran Anačkov, Dr. Ružica Igić

Status of the subject: Elective

Number of ECTS points: 15

Condition: none

Goal of the subject

Higher level in the plant taxonomy. Taxonomical, phylogenetical and evolutionary importance of plants intraspecies variability. Comprehending the skills of clear and valid selection of characters for determination of intraspecific taxa. Knowledge of techniques used in the detection of intraspecies variability.

Outcome of the subject

Application of acquired knowledge in scientific research, search and analysis of literature sources and newly published results in the field of plant taxonomy, independent defining of the working hypothesis and implementation of the research process in the taxonomy, the development of taxonomic phylosophy and scientific interpretation of results.

Content of the subject

Theoretical lectures: Intraspecific categories legitimate by International Code of nomenclature for Algae, Fungi and Plants, principles of determining the new intraspecific categories. Forms of plants variability, such are: monomorphic, polymorphic and politypic species, importance of mutations and modifications in the plant variability. Phenotypic selection and evolutionary strategies of flowers. Ecological concept of intraspecific variability. Effects of colonization, metapopulation dynamics and flowers transformation. Floral design and the asymmetry evolution. Geographical concept in morphological variability in floral region. The hybrid zones and intraspecific variability. Problematic taxa. Parallel taxa by principles of subordination. Models of variable series. Phenocopies.

Practical lectures: Based on fresh plant material, collected by student. On the practical lectures will be analyzed selected species with a pronounced variability based on already described intraspecies taxa. It will be determined the characters that differ from the typical character of species (taxon), and try to connect with some of the ecological factors that cause these changes. They highlight features that are not mentioned in the literature and are clearly visible and may have taxonomic significance. Results of student work will be presented as a seminar article.

Recommended literature

Briggs D., Walters S.M. (2000): Plant variation and evolution, 3rd ed. Cambridge University Press, Cambridge.
Harder L.D., Barrett S.C.H., eds. (2007): Ecology and Evolution of Flowers. Oxford University Press, Oxford.

3. Arnold M.L. (2012): Evolution Through Genetic Excange. Oxford University Press, Oxford.

Doctoral dissertations and masters theses in the field of molecular systematics of plants recommended by mentors, as well as scientific papers and websites with current issues in taxonomy and plant systematics.

Number of active classes	Theory:5	Practice: 5
Methods of delivering lectures		
Lectures, individual consultations, lab work, seminar article.		
Evaluation of knowledge (maximum number of points 100)		
Seminar article 50 points		
Oral exam 50 points		