



10th CMAPSEEC: BOOK OF ABSTRACTS

**10th Conference on Medicinal and Aromatic Plants of
Southeast European Countries**

May 20-24, 2018, Split, Croatia

GENUS *THYMUS* IN BULGARIA – A NEW PROJECT AIMED AT REVEALING OF SPECIES' METABOLITE PROFILE AND GENETIC DIVERSITY

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Genus *Thymus* comprises more than 250 species of perennial herbaceous or fruticose plants, classified into eight sections. Total of 66 species with numerous subspecies and varieties are listed in Flora Europaea. Twenty species occur naturally in Bulgaria. One of them is endemic to the country (*Thymus perinicus* Velen./ Jalas), four are endemics to the Balkan Peninsula (*T. albanus* Heiner. Braun ex Wettst., *T. comptus* Griseb., *T. longedentatus* Degen & Urum./ Ronniger, *T. stoyanovii* Degen) and other three are sub-endemics (*T. atticus* Čelak., *T. moesiacus* Velen., *T. sibthorpii* Benth.). The studies on the genetic variation at species and within-species level will help the elucidation of some unresolved taxonomic issues and at the same time will serve as characteristics of the genetic resources of the species. The species of genus *Thymus* provoke substantial interest worldwide from phytochemical point of view, due to their diverse biological activities with potential for application in pharmaceutical, cosmetic and food industries. They have been used since the ancient times to treat diseases of the respiratory and digestive system, as well as of colds. They possess expectorant, antiseptic, fungicide, spasmolytic, carminative, sedative, diaphoretic and diuretic activity. The main objective of the present project is to perform a complete genetic and phytochemical study on the species of genus *Thymus* in Bulgaria. Distinguishing the taxa according to their morphology, chorology, ecological and genetic characteristics, metabolite content, essential oil composition, expression of antioxidant activity will allow composition of a general picture of the species of genus *Thymus* in Bulgaria. Results of the studies will be a basis for determining the place of each species within the general scheme of the genus. The information gathered will serve as a scientific basis for the initial stages of cultivation of the prospective (with best phytochemical characteristics) species, as well as the endangered ones.

Key words: Thyme, diversity, taxonomy, active compounds

Acknowledgement: This work was supported by the NSF, Ministry of Education and Science, Bulgaria, Project DN 16/3.