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## **DIVERSITY OF ORTHOPTERA IN THE HEATHLAND OF MILITARY TRAINING AREA „ĀDAŽI”**

Rūta Rozenfelde, Kristaps Vilks

University of Latvia, Faculty of Biology

Adress: Kronvalda blvd. 4, LV 1586, Riga, Latvia

e-mail: [ruuta.r@gmail.com](mailto:ruuta.r@gmail.com); [kvilks@lanet.lv](mailto:kvilks@lanet.lv);

Military training area “Ādaži”, a part of the ecological network of protected areas Natura 2000, includes the largest heathlands of Baltic States. The heathland is formed due to military interaction, but by means of secondary succession, the cover of Scots Pine *Pinus sylvestris* is expanding, thus the biological diversity is endangered. To reduce this process attempts to preserve the heathlands by regular controlled burning is carried out, resulting in a heterogeneous patch-like landscape. Though it is not yet known how the burning influences various groups of living organisms. One of the indicators widely used in biodiversity researches are crickets and grasshoppers. The goal of this study is to gather the first results of Orthoptera diversity in Ādaži.

The research is made in 6 sampling sites, including territories where burning has been carried out in years 2009, 2010, 2011 and 2012. In every plot all morphologically determinable species of Orthoptera were collected, and additionally 5 Barber traps were situated in the soil. A total of 30 Barber traps were placed for an exposition period of one month, from 6<sup>th</sup> august to 6<sup>th</sup> september 2012 .

As a result 246 individuals of 20 species were collected, which is approximately half of the Orthoptera species present in Latvia. The most abundant species were *Myrmeleotettix maculatus* Thnbg., *Tetrix bipunctata* L. and *Psophus stridulus* L. Two red listed species were found- *P. stridulus* L. and *Oedipoda caerulescens* L., which is also a protected species in Latvia. Specimens of *O. caerulescens* was found in the sampling site where the vegetation structure was the most patchy, and where the biggest cover of open soil was detected. The first results don't show a particular increase or decrease in species richness after heathland burning, but it is considered that the greatest number of individuals is present one season after the disturbance. In sites where *O. caerulescens* is present, the highest total species richness of grasshoppers is detected.

The diversity of Orthoptera in Ādaži is considered as large, and can possibly be explained by the highly heterogeneous and patchy landscape. The changes in the number of individuals in the different sites can be explained by increasing vegetation cover and changes in its structure. To analyze the heathland burning influence on the diversity of Orthoptera in military training area “Ādaži” more objectively, a further research has to be done.