

## Sandy steppes of northeastern Ukraine as a prospective area of the European Emerald Network

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An area of sandy dunes and sandy steppes on the ancient terrace of the Siverskyi Donets River about 50 km east of the City of Kharkiv is called “Kharkiv desert”. It is a hotspot of rare animal species. Seven of them are listed in the Red Data Book of Ukraine and 33 species in the Regional Red Data Book.

Butterfly list includes 60 species, about a half of the regional fauna. Two species, *Polyommatus eros* and *Hipparchia statilinus*, are near threatened (NT) on the European level, and both are endangered at the Ukrainian level (the former is critically endangered).

About a hundred of bee species, 35 wasp species species are recorded from the study site. *Anoplius samariensis* and *Hoplitis fulva* are included in the Red data Book of Ukraine as endangered and *Sphex funerarius* as not determined. The northern boundaries of the geographic ranges of *H. fulva* and the true bugs *Menaccarus arenicola* and *Vilpianus galii* run along the Kharkiv sands. In northeastern Ukraine, these species occur only in sandy habitats.

Spider species list is quite short, 62 out of 423 for the Kharkiv Region, but 18 of them (29%) are regionally rare. Two species are at the western boundaries (*Mustelicosia dimidiata*, *Xysticus mongolicus*) and one (*Yllenus vittatus*) at the northern boundary of their ranges. In the study area, these species are sandy grassland specialists. For one species (*Haplodrassus bohemicus*), the Kharkiv sands is the northernmost locality in the East European Plain, and for 11 species it is the only known locality in northeastern Ukraine.

Floristic research is at the initial stage. Two species (*Stipa capillata* and *Pulsatilla pratensis*) are included in the Red Data Book of Ukraine, and another three species (*Koeleria sabuletorum*, *Jasione montana*, *Linum austriacum*) are regionally rare. One formation (*Stipeta capillatae*) is included in the Green Book of Ukraine. The plots of forb-bunchgrass-shrub steppe on sandy soil correspond to the definition of endangered natural habitats (F3. 247) of the Bern Convention.

Sandy habitats of the studied area are well preserved. They host a number of rare and endangered species and can be a valuable site of the Emerald Network. The most threats for the habitat conservation are afforestation, encroachment of invasive species, and uncontrolled burning.