

## Project Update: August 2023

We are almost at the end of fieldwork I and few general conclusions can be made on the state of sandy grasslands in Serbia and Hungary. As we mentioned in the project proposal, afforestation and non-native species are the biggest threats to these unique habitats, and we observed it everywhere we went in both countries. However, it seems that mostly small fragments have been occupied spontaneously by invasive bushes and trees like milkweed (*Asclepias syriaca*) and ailanthus (*Ailanthus altissima*), whereas broader sandy areas were for decades intentionally transformed into plantations of pines (*Pinus nigra* and *P. silvestris*) and black locust (*Robinia pseudoacacia*). The other threatening factors we observed in the field, primarily in Serbian sandy areas, were illegal sand mining and landfills especially if they are close to the settlements.

The biggest obstacle to our project is that we could not enter Subotica Sands this year because of safety reasons on the Serbian-Hungarian border. This area is greatly occupied by migrants and refugees from the Middle East and all visits to that protected area are cancelled by Serbian authorities until further notice. We hope the situation will stabilise by next year, if not we will have to make some changes in the selection of sampling sites for insect monitoring. We already visited some of the nearby sandy grassland fragments, alternative sampling sites, on the Serbian and Hungarian sides which can be potentially used instead of those in Subotica Sands.

The most prominent species of sandy grasslands in Serbia and Hungary is definitely *Menaccarus arenicola*. This species is a specialist in these grasslands, and it is easy to identify it on the spot. The second most frequent are *Chorosoma* specimens but we are not sure which species they belong to (more common *Ch. schillingii* or sand specialist *Ch. gracile*), species level identification is possible by genital examination in the lab.



Figure 1. *Ailanthus altissima* occupied a previously open sandy grassland.



Figure 2. Sand mine in Deliblato Sands.



Figure 3. Habitat specialist of sandy grasslands—*Menaccarus arenicola*.