

Project Update: August 2018

During last 4 months we have conducted field work in National park Djerdap, special nature reserve Jelašnička Gorge, and in the surroundings of Kragujevac. We have also conducted second part of our field activities in Krupanj surroundings where we continued our efforts to find out more about venom markets (as this viper is still harvested here). According to the plan, we have measured snakes, took buccal swabs for parasite analyses and mapped the habitats. Along with field research we distributed questionnaires to local community in the Kragujevac surrounding. We have also reconnected with the members of local communities in villages in protected areas Djerdap and Jelasnicka Gorge and in Krupanj surroundings.

Besides these activities, we gave a lecture to mountaineer society "Žeželj" in Kragujevac where we showed them differences between venomous and non-venomous snakes and explained them behavior of the nose-horned vipers and proper procedure in the case of snakebite. We were also interviewed about importance of nose-horned viper and snakes in general for the radio show on the radio station "Zlatousti" in Kragujevac. We have also formed our blog called Snake corner to educate people about snakes. Link to our blog: <https://snakecorner.wordpress.com/>

Our first critical finding in Kragujevac surroundings is that, according to the local person who illegally holds nose-horned viper in captivity as pet, this viper is still used in pet trade and the price of this species on the famous animal exhibition and fair TerraPlaza in Budapest, Hungary goes to 3000 euros which is of extreme concern not just for specimens in Serbia but also in other countries of its range as majority of these countries are in bad economical and political situation. Because of this, at the moment we are conducting investigation of venom markets and pet trade which is not very easy as lot of people does not want to talk too much. Hopefully, we will be able to present our findings in the final report and to publish our findings in a scientific journal.

Our second important finding concerns about nose-horned viper populations itself. We have analysed some of our DNA samples with the help of the colleagues from Institute for Biological Research "Sinisa Stanković" University of Belgrade. We have conducted phylogenetic analyses and confirmed presence of the new genetic clade of this snake in Serbia which was not confirmed before. The problem arises with the fact that we have found this new clade at two localities in Serbia. Namely, at one of these localities, in our interviews with local inhabitants, 30% of them stated that local collectors released vipers there. Therefore, presence of this new clade at one locality is due to the natural factors but presence in the second locality could be the result of human misconduct. Nevertheless, even if this is naturally occurring and not result of the anthropogenic misconduct, it still underlines necessity to apply conservation measures as it is important to maintain genetic diversity within species. We have confirmed illegal harvesting, intentional killing, habitat fragmentation and pollution in nose-horned viper populations in Serbia and different responses on these threats in different populations often have a genetic component. Understanding genetic component and demographic data will enable us to have insight into population differences and prioritise actions in conservation. We are now in the process of writing paper about our findings for the peer reviewed journal.

Currently, we are in the process of investigation of venom markets and pet trade and we are also editing our amateur educational video which will hopefully be available at the beginning of the September. You can find our short videos about nose-horned viper behavior on our You Tube page.

Link to our latest short video: <https://www.youtube.com/watch?v=6YgJRa9675Y>



Field work



Female nose-horned viper (gravid)



Landscape from our field at Djerdap National Park



Lecture to mountaineer society in Kragujevac



Lecture to mountaineer society in Kragujevac



Landscape from our field (Kragujevac surroundings)



Female nose-horned viper