



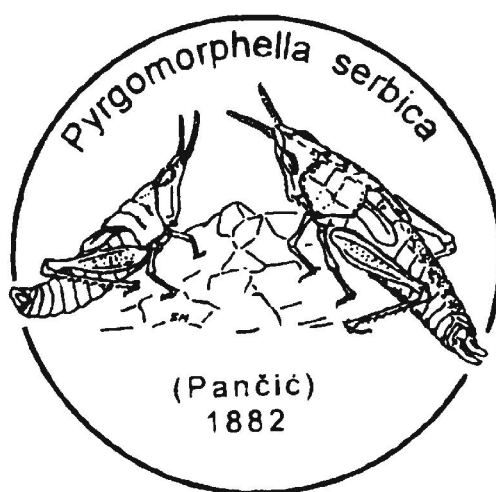
**SIMPOZIJUM  
ENTOMOLOGA  
SRBIJE 2011**

**SYMPOSIUM OF  
ENTOMOLOGISTS  
OF SERBIA 2011**

**DONJI MILANOVAC  
SEPTEMBER 21-25, 2011**



**ENTOMOLOŠKO DRUŠTVO SRBIJE**  
**ENTOMOLOGICAL SOCIETY OF SERBIA**



**SIMPOZIJUM ENTOMOLOGA SRBIJE 2011**  
sa međunarodnim učešćem

**SYMPOSIUM OF ENTOMOLOGISTS OF SERBIA 2011**  
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**DONJI MILANOVAC**  
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DONJI MILANOVAC, 21-25 IX 2011

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## PRESENT STATE OF THE BLACKFLY FAUNA (DIPTERA, SIMULIIDAE) IN THE IRON GATE REGION (EAST SERBIA)

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The section of the Danube river flowing through the Iron Gate (Djerdap gorge) in eastern Serbia represented the main breeding site of *Simulium colombaschense* (Scopoli, 1780), the most ferocious black fly species in Europe, that caused enormous losses of livestock in the past. Due to repeated outbreaks of this black fly species, this region was the targeted study area of several researchers over more than 100 years. Besides establishing the composition of the black fly fauna in this part of the Danube, at the same time efforts were done in order to light up the species composition of the Danube tributaries in this region.

Due to highly significant environmental changes of the blackfly breeding sites in the Danube caused by damming of the river and construction of the hydroelectric power station at the end of 60's of the last century, consecutive changes in black fly fauna were verified in both, species composition and declining of population density of certain species. Recently, outbreaks of simuliid species were recorded in 2006 and 2010 when it caused severe dermatological problems in humans in different parts of Serbia. Thus, systematical reestablishment of biological and ecological studies of the blackfly fauna is strongly needed in different endangered parts of Serbia, including the region of the Iron Gate, where the data on the present state of the black fly fauna is completely missing over a gap period of more than 35 years.

After updating the knowledge of black fly fauna of the Danube river and some of its tributaries in the upstream part of the course, the objective of the research was to reestablish the studies of black fly fauna in the region of the Iron Gate and compare the fauna composition in the present and past times. Unfavorable hydrological conditions characterized by extremely low water level of the Danube persisted during the entire spring of 2011. In such circumstances, the lack of suitable blackfly breeding sites occurred, disabling the successful sampling. Thus, the research program was redirected and focused on the investigation of the stream fauna of tributaries of the Danube in the prospected region. Such habitats might have an important role in population survival of typically riverine species during the periods of unfavorable hydrological conditions of the main breeding sites in the Danube. Preliminary results demonstrated the absence of *S. colombaschense* in the tributaries of the Danube. The closely related *S. reptans* (Linnaeus, 1758) was dominant in the larger tributaries (Porečka reka, Cerna). Other so far identified species were: *Prosimulium tomosvaryi* (Enderlein, 1921), *S. argenteostriatum* Strobl, 1898, *S. degrangei* Dorier & Grenier, 1960, *S. variegatum* Meigen, 1818, *S. vulgare* Dorogostaisky, Rubtsov & Vlasenko, 1935 and/or *S. tuberosum* (Lundström, 1911). These species being known to possess mammophilic preference, could represent potential risk to both humans and/ or animal health in situation of their mass appearance.