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ABSTRACT BOOK

OP-A02. POSSIBLE RE-EMERGENCE OF LEISHMANIASIS IN SERBIA**Vaselek S.¹, Savić S.², Di Muccio T.³, Erisoz Kasap O.⁴, Gradoni L.³, Alten B.⁴, Petrić D.¹**¹Department of Phytomedicine and Environmental protection, University of Novi Sad, Novi Sad, Serbia²Scientific Veterinary Institute „Novi Sad“, Novi Sad, Serbia³Department of Infectious, Parasitic and Immune-Mediated Diseases, Istituto Superiore di Sanita, Rome, Italy⁴Department of Biology, Hacettepe University, Ankara, Turkey*Correspondence:* slavica.vaselek@gmail.com

Leishmaniasis, cutaneous and visceral, was endemic in south and southeast Serbia until the middle of the 20th century, but never reported in northern parts of the country - Vojvodina region. For more than 50 years leishmaniasis is considered to be eradicated and all research on vector and pathogen was abandoned. During the past few years several cases of canine leishmaniasis were reported in Vojvodina, which suggested the possibility of disease spreading to the north and re-emergence of the risk in Serbia. Research of sand flies in Vojvodina had been conducted only between 1948 and 1951 following a massive outbreak of sand fly fever. Then it was terminated, mostly due to the low abundance and diversity of vector species. Considering the possibility of change in vector-pathogen system and a lack of knowledge on sand flies in Vojvodina, entomological surveillance was resumed in 2013. Survey was conducted from the middle of July until the end of August in 17 villages that were worst affected with sand fly fever during the 1950 epidemic. Sand flies were collected with standard CDC light traps, dry ice baited traps without light, sticky traps and mouth aspirators during 20 sampling days. Sand fly specimens were identified morphologically and molecularly by sequencing the cytochrome oxidase 1 mitochondrial gene (COI 1). DNA was extracted and tested for *Leishmania* presence with Nested PCR. Each male and female specimen was tested separately. In total, 55 specimens of genus *Phlebotomus* were sampled. Most of them (54 specimens) were *Phlebotomus papatasi*, species previously reported from the sampling area. Only one specimen was identified as *Phlebotomus tobbi*, which was northernmost record of this species in Serbia and the first record for Vojvodina region. Four specimens of *P. papatasi*, which is specific vector for *Leishmania major*, tested positive on *Leishmania infantum*. Detection of *L. infantum* in *P. papatasi* was most likely incidental and connected to recent blood feeding. Supported by nearby discovery of *P. tobbi*, proven vector of *L. infantum*, this confirms the presence of pathogen in the host and possible circulation in Serbia.