

Work Package Activity Number:
(WP1a) Surveillance of invasive and native mosquito species

Partners FoA, CAA, BTF

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WP where the activity belongs: WP1

REPORT

Purpose of the Activity

Short synopsis: Identifications of adult mosquitoes sampled by most appropriate trapping methods and formation of data base for the maps of their distribution which would be publicly available at the LOVCEN web site.

Trapping by BG Sentinel traps was conducted from 5th June to 1st September by Dr. Pajović at 11 sampling sites (Bandići, Berislavci, Budva, Donja Gorica, Donja Zlatica, Gornja Gorica, Mataguži, Plavnica, Radovići, Stara Varoš, Tološi, Zabjelo), in total 23 sampling nights. Human bite sampling was performed by Dr. Petrić from August 8th to 12th in Montenegro (Podgorica, Radovići), by the battery powered aspirator provided by partner from Italy CAA. Sampled mosquitoes were dry preserved in small flasks marked with date and locality name. Samples were identified according to morphological characters by the dichotomous key Becker et al. (2014) from October 6th – 10th.

Results: Traps were positioned most frequently within the backyards of the houses at the places protected from the strong wind, operating from the afternoon to the next day morning. Traps were baited by the lure for the invasive container mosquitoes and in some occasions with mixture of water, sugar and brewer's yeast that produced CO₂. Major drawback in the season 2014 was inadequate supply of dry ice due to manufacturer's technical problems. Only one supply was delivered at the end of the season. On man, all mosquitoes landing on the front body parts were sampled during 5-15 minutes period by the battery powered aspirator. By all sampling methods 2012 male and female mosquito specimens belonging to 7 species were sampled:

1. *Anopheles maculipennis* s.l. (vector of malaria)*
2. *Aedimorphus* [*Aedes*]** *vexans* (vector of Rift Valley Virus and Celovo Virus)
3. *Dahlia* [*Ochlerotatus*] *echinus*
4. *Ochlerotatus caspius* (vector of Rift Valley Virus and nematodes *Dirofilaria immitis* and *D. repens*)
5. *Ochlerotatus sticticus*
6. *Stegomyia* [*Aedes*] *albopicta* (vector of Chikungunia Virus, Dengue Virus and nematodes *Dirofilaria immitis* and *D. repens*)
7. *Culex modestus* (vector of West Nile Virus and nematodes *Dirofilaria immitis* and *D. repens*)

8. *Culex pipiens* (vector of West Nile Virus, Sindbis virus, Rift Valley Virus and nematodes *Dirofilaria immitis* and *D. repens*)

9. *Culicoides* sp.^{***} (vector of Blue Thong Virus)

* In the brackets following the names of identified species only major pathogens of man (species 1, 2, 4, 6, 7, 8) and/or animals (4, 6, 7, 8 and 9) are given.

** Major generic changes within the tribe Aedini were recently published (Reinert 2000; Reinert et al. 2004, 2006, 2008, 2009), leading to a scientific debate and two or more names being simultaneously used for a single taxon. In list above, new names followed with traditional in square brackets were used.

*** Genus *Culicoides* belongs to family Ceratopogonidae, not Culicidae (mosquitoes) but we decided to register their presence being the vectors of deadly blue tongue disease of sheep.

Equipment Used: BG Sentinel traps (in kind contribution FoA Novi Sad), battery powered aspirators (in kind contribution CAA Crevalcore), laboratory material (in kind contribution BTF Podgorica, FoA Novi Sad), identification keys (in kind contribution FoA Novi Sad).