

## SHORT TERM SCIENTIFIC MISSION (STSM) SCIENTIFIC REPORT

This report is submitted for approval by the STSM applicant to the STSM coordinator

**Action number: CA17108**

**STSM title: Questionnaire Analysis and Reporting of Vector Surveillance and Control Programmes in Europe**

**STSM start and end date: 21/09/2019 to 25/09/2019**

**Grantee name: Mattia Manica**

### PURPOSE OF THE STSM:

(max.200 words)

The main purpose of this STSM was to analyse and report information enclosed in the questionnaires that were distributed during the first part of this AIM COST project. Specifically, the STSM aimed to facilitate the collaboration between researchers of different expertise and background (Mattia Manica from Fondazione Edmund Mach, Cosmin Salasan from Banat's University of Agricultural Sciences and Veterinary Medicine, and Dusan Petric from the host institution) in order to disentangle the information included in the questionnaires regarding the state of art of surveillance and control practice in Europe at different levels (national/regional/local)

The three main objectives of this mission were:

1. to review the available questionnaires to select relevant items and questions,
2. discuss how to standardize information, correct for potential biases and analyse the questionnaire
3. draft a comprehensive report based on findings and explore the possibility for a future scientific publication.

### DESCRIPTION OF WORK CARRIED OUT DURING THE STSMS

(max.500 words)

Dr Manica and Dr Salasan interacted and discussed frequently sharing ideas about the most appropriate analysis, the most interesting comparison and the key features to be included in the report to best describe the information provided by questionnaires in the European region.

The work was structured initially by reviewing all questionnaire and discussing biases in the data and possible solution. Key questions were identified and given priority in the analysis. Application of filters to subdivide respondent into relevant categories (such as involved or not involved in mosquito surveillance) and/or subdivide each question into relevant governance level (such as national, regional, and local) was discussed and approved. During the following days, supported also by Dr. Petric, we computed descriptive and statistical analysis of the relevant questions. Analysis were carried out in Excel and R statistical software. The subdivision into different categories allowed to highlight different patterns in the quality and in the content of the answer given to the questionnaire, thus confirming the need of an in-depth analysis. Dr Salasan extensively worked on polishing the data, providing key insight and interpretation of results. Dr Manica worked on building up scripting R code to allow for easy replication of the analysis and graphical

visualization of results. Questions selected as relevant and successfully analysed were Q 3, 4, 6, 7, 12, 13, 14, 19, 20, 24 which span from presence of local/regional/national guidelines, governance level of responsible authorities for surveillance and control, type of methods used for surveillance, presence of control intervention and involvement of local/regional/national authorities in *Aedes* invasive mosquito activities. A presentation summarising the main findings and results was delivered during the AIM-COST Questionnaire Analysis Meeting in Novi Sad (24-25 October). The novel findings and proposed analysis provided ground for discussion in the Questionnaire Analysis Meeting and were agreed upon by the participants. We plan to prepare a scientific paper highlighting results and methodology applied in the forthcoming months.

#### **DESCRIPTION OF THE MAIN RESULTS OBTAINED**

The two striking results were the findings of different content in the respondent's answers based on their involvement in mosquito surveillance (question 7) and the presence of different levels (local/regional/national) at which mosquito monitoring strategies are planned and that the involvement of the levels changes between high-income and low-income European countries. Other relevant findings include the usage as ovitraps as the main surveillance tool in Europe, the presence of gaps in the present guidelines, the needs of more simplified and comprehensive ones and the positive perception toward citizen involvement and citizen science projects.

#### **FUTURE COLLABORATIONS (if applicable)**

Both researchers are committed to continue the present collaboration under the umbrella of AIM-COST CA17108 and are planning to prepare one scientific paper and to support the writing of a second one that will be prepared jointly with the participants of the the AIM-COST Questionnaire Analysis Meeting.