

SHORT TERM SCIENTIFIC MISSION (STSM) SCIENTIFIC REPORT

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

Action number: CA17108 - Aedes Invasive Mosquitoes
STSM title: Questionnaire Analysis and Reporting of Vector Surveillance and Control Programmes in Europe
STSM start and end date: 21/10/2019 to 25/10/2019
Grantee name: Cosmin SALASAN

PURPOSE OF THE STSM:

(max.200 words)

The contribution to the scientific objectives of AIM Cost consisted of the realization of the support summarizing the state of art of surveillance and control practice in Europe at different levels (national/regional/local), reviewing novel and standard practices actually used and providing guidance to optimize current guidelines for invasive mosquitoes. The analysis allows in depth observations and completes the meaning of the provided answers while the entire set of results remains purely based on findings.

DESCRIPTION OF WORK CARRIED OUT DURING THE STSMS

(max.500 words)

The activities ensuring the achievement of the STSM purpose were structured and conducted following the next plan: data acquisition and data tidying, descriptive and statistical/text mining analysis, interpretation of results and support preparation. The specific tasks included the review the current activities in surveillance and control of invasive mosquitoes in Europe including citizen science activities, the review of the existing guideline and share of best practices to optimize surveillance and control approaches. Each task was carried out by analyzing responses for every item in the questionnaire. Each item was analyzed independently and in relations to other items dealing with the same topics. The questionnaire has been already structured to facilitate the subdivision of items under similar topics. Efforts to correct for sampling bias and uneven sample size at country level were inputted. A protocol describing data tidying and statistical procedure was captured to facilitate the reproducibility of results and future replication of the questionnaire. Analysis was carried out in Excel and R (statistical software) using both standard survey descriptive analysis and text mining techniques. Results were drafted in a document summarizing the actual state of surveillance and control of invasive mosquitoes supporting a concise presentation realized and delivered during the AIM-COST Questionnaire Analysis Meeting in Novi Sad (24-25.10). The novelty of the data processing approach consisted of the introduction of a split analysis and comparison of results in order to verify and mirror the results for the entire sample. To this end, using the answers provided to one specific question returning the direct involvement of the interviewees two separate groups were parallelly analyzed and mirrored: those being directly involved in the surveillance/monitoring of invasive mosquitoes and the second group consisting of those not involved. The results were displaying a consistent number of differences for the selected questions justifying the approach and enabling the results for deeper reading of the findings. Further on the mirrored results were compared to the results offered by the entire sample responses generating more observations linked to the direct involvement or to not involved professionals, namely in terms of specific knowledge. The focus obtained from the complete

processing of the entire questionnaire was amended by the new findings and outputted for the further discussion in the presentation given during the Questionnaire Analysis meeting. The set of observations and findings compiled together offer excellent grounds for the in depth analysis of one scientific paper planned for the upcoming months.

DESCRIPTION OF THE MAIN RESULTS OBTAINED

The main results generated by the in-depth analysis, tested and verified for validity, reflect the observations based primary on the qualified answers. These sets of results used to generate the brief presentation during the AIM-COST Meeting in Novi Sad consisted of the following filtered questions: 3. To your knowledge, at which level are the Aedes invasive mosquito MONITORING/ SURVEILLANCE strategies defined in your country/region, and list the relevant competent authorities? In some countries, different bodies/levels organise different aspects of mosquito surveillance. If this is the case in your country, please list all of them at the appropriate level; 4. To your knowledge, in which context and who is funding Aedes invasive mosquito MONITORING/ SURVEILLANCE in your country/region? In some countries, different bodies/levels fund different aspects of mosquito surveillance. If this is the case in your country, please list all of them at the appropriate level; 5. To your knowledge, at which level and who is implementing Aedes invasive mosquito MONITORING/ SURVEILLANCE in your country/region? In some countries, different aspects of monitoring/surveillance are implemented by different institutions. If this is the case in your country, please list all of them at the appropriate level; 6. To your knowledge, what are the objectives of Aedes invasive mosquito surveillance implemented in your country? (Please score the objectives as 1-Priority 2-Secondary 3-Not a priority) To detect the introduction of invasive species: Score: 1-Priority 2-Secondary 3-Not a priority; 12. If implemented, who is responsible for Aedes mosquito CONTROL in your country/region? : To reduce Aedes invasive mosquito abundance and nuisance; 13. If implemented, which are the common methods/activities for mosquito CONTROL in your country/region? : To reduce Aedes invasive mosquito abundance and nuisance; 14. Which are, in your opinion, the 3 most common problems/constraints affecting the implementation of mosquito CONTROL methods/activities in your country? Please rank from 1 (most important) to 3 (least important) To reduce Aedes invasive mosquito abundance and nuisance: Awareness of the responsible authorities; 19. Are you aware of or using any of the existing guidelines for mosquito SURVEILLANCE/CONTROL?: Monitoring or Surveillance; 19. Are you aware of or using any of the existing guidelines for mosquito SURVEILLANCE/CONTROL?: Control; 20a. Do you think there GAPS in available guidelines for Aedes invasive mosquito MONITORING/SURVEILLANCE and/or CONTROL? 20b. Do you think there are GAPS in in available guidelines for Aedes invasive mosquito MONITORING/SURVEILLANCE and/or CONTROL? 24. Do you think it's important to have citizens involved in Aedes invasive mosquito MONITORING/SURVEILLANCE or CONTROL: Monitoring and Surveillance, Control by source reduction, Biocidal control targeting mosquito larvae, Biological control (fish, copepods), Control by Mass trapping. All the presented questions were initially filtered by question 7: Are you are involved in Aedes invasive mosquito MONITORING/SURVEILLANCE please reply to the following questions. The results were presented mirrored were the differences resulted from the filtering was significant and further mirrored with the results from the full sample processing.

FUTURE COLLABORATIONS (if applicable)

A number of two papers are retained and prepared to be proposed for publication in two journals. Further writing and editing involve the participants to STSM and the wider AIM-COST team of experts contributing to the final versions of these papers.