



Training Course on Management and Statistical Analysis of Data Collected from Mark-Release-Recapture Studies for Aedes Mosquitoes in Preparation of SIT Pilot Trials

Hosted by

The International Atomic Energy Agency
IAEA Headquarters
Vienna, Austria

6 to 10 December 2021

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Information Sheet

Purpose

The purpose of the training is to enhance the knowledge on data collection, management, and statistical analysis from mark release recapture (MRR) studies of Aedes mosquitoes in preparation of SIT pilot trials.

Working Language(s)

The working language(s) of the event will be **English**.

Deadline for Nominations

Nominations received after **11 October 2021** will not be considered.

Project Background

The implementation of integrated pest management programmes including a Sterile Insect Technique (SIT) component against *Aedes* mosquito vectors of human disease relies on the collection of baseline data in the feasibility phase and continuous monitoring of mosquito populations in the pilot and operational phases. Moreover, MRR studies are essential and prerequisite for effectively planning and conducting a SIT program. Therefore, the appropriate collection, management, and analysis of the data is important to implement adaptive management and warrant the success of male release programs. The template spreadsheet and R package are also useful instruments for mosquito control and research activities to manipulate and visualize the entomological monitoring data. During the RER5022 training on the basic use of R software organized in February 2019 in Seibersdorf, Austria, and during the RER5026 virtual first coordinating meeting organized in February 2021, there were interests in further training on this topic, that led to organize this follow-up training.

Scope and Nature

The training will enhance the knowledge on the use of a template spreadsheet and custom-made R package to manipulate data collected from MRR studies and infer simple statistics on mosquitoes population that can be used to inform control operations including a SIT component against *Aedes* mosquitoes. The training course will cover the basic on MRR method for SIT, organising and handling data with the template spreadsheet and the R package to infer the main parameters such as mortality, dispersal, and competitiveness.

1. Provide the basics on MRR studies for SIT in *Aedes* mosquitoes and the main entomological parameters to be measured to prepare pilot trials
2. Organise and analyse the data collected from a MRR study using a template spreadsheet
3. Organise and analyse data using the custom-made R package “mrrsit”

The participants should bring their own laptop to the training and encouraged to install the latest version of R and R-Studio free software before the training.

Participation

The target countries are those actively involved in the regional TC project RER5026 (and willing to carry out a SIT pilot trial and validate the SIT's package feasibility for *Aedes* mosquitoes) and where invasive *Aedes* mosquitoes have been detected, have become established, or pose an imminent risk of becoming established; namely: Albania, Croatia, Cyprus, Greece, Montenegro, Portugal, Serbia, Turkey, Bulgaria, and Romania.

Participants' Qualifications and Experience

The participants should be specialists (i.e., hold a Bachelor's degree or equivalent) in health, veterinary, animal or biological science, with a background in entomology. They must be actively involved in mosquito activities (e.g. mosquito biology, GIS, entomological baseline data collection and data management, MRR). Applications from Junior Professionals are encouraged and the justification of a basic knowledge of the R software (including the participation to the RER5022 training course on basic use of R software held in February 2019, EVT1807060, RER5026-EVT2101853 Virtual Regional Training Course on SIT components (Module I) held in June 2021, EVT2102224 (Module II) held in July 2021) is strongly advisable. The presence of each candidate during the entire period of the training is necessary in order to successfully complete the course.

Application Procedure

Candidates wishing to apply for this event should follow the steps below:

1. Access the InTouch+ home page (<https://intouchplus.iaea.org>) using the candidate's existing Nucleus username and password. If the candidate is not a registered Nucleus user, she/he must create a Nucleus account (<https://websso.iaea.org/IM/UserRegistrationPage.aspx>) before proceeding with the event application process below.
2. On the InTouch + platform, the candidate must:
 - a. Finalize or update her/his personal details, provide sufficient information to establish the required qualifications regarding education, language skills and work experience ('Profile' tab) and upload relevant supporting documents;
 - b. Search for the relevant technical cooperation event (EVT2104287) under the 'My Eligible Events' tab, answer the mandatory questions and lastly submit the application to the required authority.

NOTE: Completed applications need to be approved by the relevant national authority, i.e. the National Liaison Office, and submitted to the IAEA through the established official channels by the provided designation deadline.

For additional support on how to apply for an event, please refer to the [InTouch+ Help page](#). Any issues or queries related to InTouch+ can be addressed to InTouchPlus.Contact-Point@iaea.org.

Should online application submission not be possible, candidates may download the nomination form for the training course from the [IAEA website](#).

NOTE: A medical certificate signed by a registered medical practitioner dated not more than four months prior to starting date of the event must be submitted by candidates when applying for a) events with a duration exceeding one month, and/or b) all candidates over the age of 65 regardless of the event duration.

Administrative and Financial Arrangements

Nominating authorities will be informed in due course of the names of the candidates who have been selected, and will at that time be informed of the procedure to be followed with regard to administrative and financial matters.

Selected participants will receive an allowance from the IAEA sufficient to cover their costs of lodging, daily subsistence and miscellaneous expenses. They will also receive either a round-trip air ticket based on the most direct and economical route between the airport nearest their residence and the airport nearest the duty station through the IAEA's travel agency American Express, or a travel grant, or they will be reimbursed travel by car/bus/train in accordance with IAEA rules for non-staff travel.

Disclaimer of Liability

The organizers of the event do not accept liability for the payment of any cost or compensation that may arise from damage to or loss of personal property, or from illness, injury, disability or death of a participant while he/she is travelling to and from or attending the course, and it is clearly understood that each Government, in approving his/her participation, undertakes responsibility for such coverage. Governments would be well advised to take out insurance against these risks.

Note for female participants

Any woman engaged by the IAEA for work or training should notify the IAEA on becoming aware that she is pregnant.

The Board of Governors of the IAEA approved new International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources. The Standards deal specifically with the occupational exposure conditions of female workers by requiring, inter alia, that a female worker should, on becoming aware that she is pregnant, notify her employer in order that her working conditions may be modified, if necessary. This notification shall not be considered a reason to exclude her from work; however, her working conditions, with respect to occupational exposure shall be adapted with a view to ensuring that her embryo or foetus be afforded the same broad level of protection as required for members of the public.

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