

# Virtual Training Course on R package development and statistic training on data from Mark-Release-Recapture studies for Aedes mosquitoes

Hosted by

The International Atomic Energy Agency IAEA Headquarters Vienna, Austria

22 to 26 March 2021

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# **Information Sheet**

### Purpose

The purpose of the event is to:

1. Develop R package including graphical interface, codes from graphical inputs and use of command line mode to conduct statistical analysis on entomological data collected from Mark-Release-Recapture (MRR) experiments.

2. Provide basics on MRR methods and training on the statistical analysis of the main indicators.

## Working Language

The working language of the event will be English.

## **Deadline for Nominations**

Nominations received after 19 February 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. The appropriate storage of these huge datasets in relational databases is essential to warrant their accessibility and implement adaptive management. Characteristics of sterile and wild populations and the proper analysis of the data collected from mark-release-recapture studies are prerequisite for effectively planning and conducting SIT. During the training on basic use of R software organized in February 2019 in Seibersdorf, Austria, there were interests in further training on this, thus this training is organized.

#### **Scope and Nature**

The purpose of the event is to provide the participants with the advanced knowledge and practical use of the R Statistical Software to manipulate data and infer simple statistics on population of mosquitoes that can be used to inform control operations including a SIT component against Aedes albopictus. The training course will include the practical sessions on organization, opening and handling of data tables under R, the implementation of graphical interface to the main functions of the datasets and the inference of mortality, dispersal and competitiveness parameters from datasets obtained through Mark-Release-Recapture trials.

The participants should use their own laptop during the training and 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 RER/5/026 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, and Turkey.

#### 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. Applications from Junior Professionals are encouraged. 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:

- Access the InTouch+ home page (<u>https://intouchplus.iaea.org</u>) 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 (<u>https://websso.iaea.org/IM/UserRegistrationPage.aspx</u>) 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 (EVT2005967) 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 <u>InTouch+ Help page</u>. Any issues or queries related to InTouch+ can be addressed to <u>InTouchPlus.Contact-Point@iaea.org</u>.

Should online application submission not be possible, candidates may download the nomination form for the training course from the <u>IAEA website</u>.

#### 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 who indicate their need, will receive financial support to contribute to the expenses of their costs for internet connection for the duration of the event in line with IAEA rules and procedures.

#### **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.

### **IAEA Contacts**

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