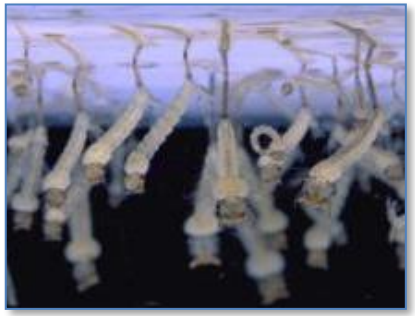
Final AIM-COST Annual Conference
Università La Sapienza, Rome
1-2 February 2023

WG1 - Monitoring and surveillance

Achievements, challenges and open perspectives



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WORKING PROGRAMME WG-1

MONITORING & SURVEILLANCE of AIMs and AIM-BDs

Task 1.1 – Review, optimisation and ToK of AIM monitoring & surveillance.

Task 1.1a – Identification of needs and gaps of different sampling protocols, identification methods and national surveillance programmes, to refine interventions from inception to assessment and to consolidate and **harmonise** recommendations

Task 1.1b – Promotion of **citizen science** based approaches of AIM monitoring and surveillance

Task 1.2 - Integrating surveillance data analysis, spatial modelling & mapping to ensure the quality and applicability of future technical outputs at the European level and beyond. Assessment of major potential 'roadblocks' in the work chain from sampling to dissemination, and provision of a set of guidelines for best practice sampling, modeling and output production.

Rationale

Organisation

- **WG1 Leader:** Francis Schaffner (CH); **Deputy:** Miguel À. Miranda (SP)
- **Task 1.1a (Review, optimisation and ToK of AIM monitoring and surveillance)**
  - **Leader:** Miguel À. Miranda (SP)
  - **Deputies:** Kela Dikolli/Elton Rogozi (AL), Adolfo Ibañez (NL), Perparim Kadriaj (AL)
- **Task 1.1b (Citizen Science)**
  - **Leader:** Frederic Bartumeus (SP)
  - **Deputies:** Helge Kampen (DE), Beniamino Caputo (IT)
- **Task 1.2 (Integrating surveillance data analysis, spatial modelling & mapping)**
  - **Leader:** Els Ducheyne/Cedric Marsboom (BE)
  - **Deputies:** Kamil Erguler (CY), Roberto Rosà (IT), Willy Wint (UK)

→ **Develop a dynamic and capacity-building network**

Rationale

Monitoring and surveillance of AIMs and AIM-borne viruses

- Objectives at the beginning of AIM-COST

  → *Reviewing existing guidelines* → *Identifying needs and gaps* → *Producing guidance documents and tools*
- MLs and DLs with adjustments
- Various achievements
- WG meetings at ACs and online
- Dissemination at other meetings and conferences
- Participants registered to WG1 activities: >120 p.

Achievements

- **Main deliverables**
  - Technical report for stakeholders about results of the questionnaire on available guidelines and gaps/needs
  - All guidelines used are listed and are available at www.aedescost.eu (with a summary in English when necessary)
  - Protocols for harmonised surveillance throughout Europe: AIMSurv, AIMCitSci, AIMApse with their implementation at large scale and results analysis and dissemination
  - Videos of best practice for surveillance of AIMs

Achievements

- **Training schools**
  - Cyprus, 13-17 January 2020: **Harmonising AIM surveillance across Europe**, 33 p.


Cyprus, 2020


Cyprus, 2020

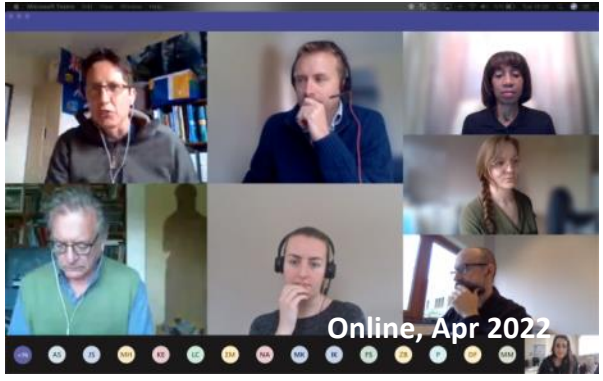
Achievements

- **Training schools**

  Contribution to:

  - Valencia-ES, 11-24 September 2021 (WG2): **Field assessment of quality in control measures against AIMs**
  - Online and Sofia-BG, 5-10 October 2022 (WG3): **Finding, using and interpreting maps and models of AIMs**


Valencia, 2021

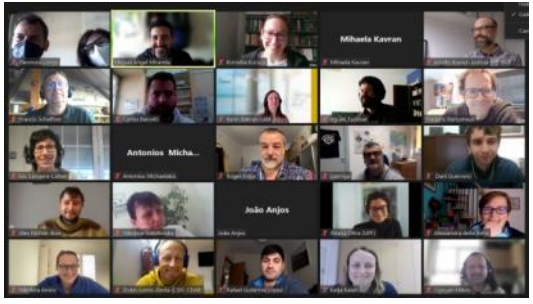

Online, Apr 2022


Sofia, Oct 2022

Achievements

- **Workshops**
  - Blanes-ES, 25-27 March 2019: **Linking citizen science to epidemiological models**, 28 p.
  - Online, 14 Dec 2020 - 26 Apr 2021: **Data Analysis Workshop – Harmonising and reporting AIMSurv2020 field data**
  - Online, 5 April 2022: **Communication and outreach approaches for Citizen Science community engagement in AIM monitoring, surveillance, and control**

Blanes, 2019



Online, Mar 2022


Online, Apr 2022

Achievements

- **Workshops**

  Contribution to:

  - Brussels-BE, 1-2 April 2019 (WG3): **Questionnaire design**
  - Novi Sad-SR, 24-25 October 2019 (WG3) : **Questionnaire first analysis**
  - Athens-GR, 28 June - 2 July 2021 (WG2): **How to use surveillance tools for an effective control**
  - Istanbul-TR, 31 August -1 September 2021 (all WGs): **Surveillance and control of AIMs**, open WS


Brussels, 2019


Athens, 2021


Istanbul, 2021

Achievements

- Short-Term Scientific Missions
  - 2019: 3
  - 2020: 13
  - 2021: 7
  - 2022: 15

Laura Vavassori

Institution: Swiss Tropical and Public Health Institute, Switzerland

Hosting Institution: Yale School of Public Health, USA

Title of the Secondment: Population genomics of insect vectors

Start date: 2019-07-01

End Date: 2019-08-31

PDF Report

Daniel Bravo Barriga

Institution: School of Veterinary Sciences of Càceres, University of Extremadura (UEx), Spain

Hosting Institution: Hosting Institution: Institute of Hygiene and Tropical Medicine, Portugal

Title of the Secondment: Microsatellites based analysis of genetic variation and population structure of Aedes albopictus in Spain.

Start date: 2019-09-15/p>

End Date: 2019-09-30

PDF Report

www.aedescost.eu

Achievements

Surveillance protocols

- AIMSurv:
  - **Field protocol for harmonised surveillance of AIMs**
  - Designing (2019), implementation (2020, 2021, 2022), results dissemination (data 2020 in Gigabyte 57, 2022)
- AIMCitSci:
  - **Design and implementation of a citizen science-based AIMs surveillance system across Europe and beyond**
  - Designing (2019), implementation (2020, 2021, 2022), results dissemination (data 2020 in Gigabyte 54, 2022)
- AIMApse:
  - **Adult Population Size Estimation - Comparing (*Aedes albopictus*) egg counts in ovitraps with number of adults attracted by collector & black box**
  - Designing (2021), implementation 2022

Ongoing

- Publishing other results
  - AIMSurv 2021-2022 data
  - AIMCitSci 2021-2022 data
  - AIMApse 2022 data

(GIGA)byte

DATA RELEASE

AIMSurv: First pan-European harmonized surveillance of *Aedes* invasive mosquito species of relevance for human vector-borne diseases

Miguel Ángel Miranda[1,*], Carlos Barceló[1], Daniele Arnoldi[2], Xenia Augsten[3], Karin Bakran-Lebl[4], George Balatsos[5], Mikel Bengoa[6], Philippe Bindler[7], Kristina Boršová[8], Maria Bourquia[9], Daniel Bravo-Barriga[10], Viktória Čabanová[8], Beniamino Caputo[11], Maria Christou[12], Sarah Delacour[13], Roger Eritja[14], Ouafaa Fassi-Fihri[15], Martina Ferraguti[15], Eleonora Flacio[16], Eva Frontera[10], Hans-Peter Fuehrer[17], Ana L. García-Pérez[18], Pantelis Georgiades[12], Sandra Gewehr[19], Fátima Goiri[18], Mikel Alexander González[20], Martin Gschwind[21], Rafael Gutiérrez-López[1], Cintia Horváth[22], Adolfo Ibáñez-Justicia[23], Viola Jani[24], Përparim Kadriaj[24], Katja Kalan[25], Mihaela Kavran[26], Ana Klobucar[27], Kornélia Kurucz[28], Javier Lucientes[13], Renke Lühken[29], Sergio Magallanes[15], Giovanni Marini[2], Angeliki F. Martinou[30], Alice Michelutti[31], Andrei Daniel Mihalca[22], Tomás Montalvo[32], Fabrizio Montarsi[31], Spiros Mourelatos[33], Nesade Muja-Bajraktari[33], Pie Müller[21], Gregoris Notarides[34], Hugo Costa Osório[35], José A. Oteo[36], Kerem Oter[37], Igor Pajović[38], John R. B. Palmer[39], Suncica Petrinic[27], Cristian Răileanu[40], Christian Ries[41], Elton Rogozi[24], Ignacio Ruiz-Arrondo[36], Isis Sanpera-Calbet[39], Nebojša Sekulić[42], Kivanc Sevim[43], Kurtesh Sherifi[44], Cornelia Silaghi[40], Manuel Silva[35], Nikolina Sokolovska[45], Zoltán Soltész[46], Tatiana Sulesco[47], Jana Šušnjar[48], Steffanie Teekema[23], Andrea Valsecchi[32], Marlen Ines Vasquez[34], Enkelejda Velo[25], Antonios Michaelakis[5], William Wint[48], Dušan Petrić[28], Francis Schaffner[49], Alessandra della Torre[11] and Consortium AIM-COST/AIM-Surv[†]

23 March 2022
19 May 2022
31 May 2022

ga author. E-mail:
ma.miranda@uah.es

(GIGA)byte

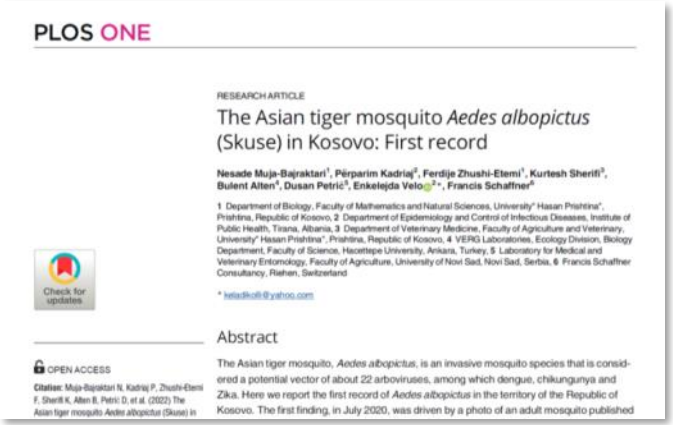
DATA RELEASE

Mosquito alert: leveraging citizen science to create a GBIF mosquito occurrence dataset

Živko Južnič-Zonta[1], Isis Sanpera-Calbet[4], Roger Eritja[2], John R.B. Palmer[4], Agustí Escobar[2], Joan Garriga[1], Aitana Oltra[4], Alex Richter-Boix[2], Francis Schaffner[3], Alessandra della Torre[5], Miguel Ángel Miranda[6], Marion Koopmans[7], Luisa Barzon[9], Frederic Bartumeus Ferre[1,2,8,*], Mosquito Alert Digital Entomology Network[†] and Mosquito Alert Community[‡]

Achievements – overall

- Networking
- Collaborative work
- Capacity building
- Building/integrating with/within the general AIM community
- Synergy with other networks (VectorNet, EMCA, Infravec…)
- Contributing to AIM knowledge



PLOS ONE

RESEARCH ARTICLE

The Asian tiger mosquito *Aedes albopictus* (Skuse) in Kosovo: First record

Nesade Muja-Bajraktari[1], Përparim Kadriaj[2], Ferdije Zhushi-Etemi[1], Kurtesh Sherifi[3], Bulent Alten[4], Dusan Petric[5], Enkelejda Velo[2]*, Francis Schaffner[6]

1 Department of Biology, Faculty of Mathematics and Natural Sciences, University" Hasan Prishtina", Prishtina, Republic of Kosovo, 2 Department of Epidemiology and Control of Infectious Diseases, Institute of Public Health, Tirana, Albania, 3 Department of Veterinary Medicine, Faculty of Agriculture and Veterinary, University" Hasan Prishtina", Prishtina, Republic of Kosovo, 4 VEPG Laboratories, Ecology Division, Biology Department, Faculty of Science, Hacettepe University, Ankara, Turkey, 5 Laboratory for Medical and Veterinary Entomology, Faculty of Agriculture, University of Novi Sad, Novi Sad, Serbia, 6 Francis Schaffner Consultancy, Riehen, Switzerland

* kelad9ko8@yahoo.com

Check for updates

OPEN ACCESS

Citation: Muja-Bajraktari N, Kadriaj P, Zhushi-Etemi F, Sherifi K, Alten B, Petric D, et al. (2022) The Asian tiger mosquito *Aedes albopictus* (Skuse) in

Abstract

The Asian tiger mosquito, *Aedes albopictus*, is an invasive mosquito species that is considered a potential vector of about 22 arboviruses, among which dengue, chikungunya and Zika. Here we report the first record of *Aedes albopictus* in the territory of the Republic of Kosovo. The first finding, in July 2020, was driven by a photo of an adult mosquito published

Challenges and open perspectives

- Maintain networking
  - As WG within a permanent structured network, e.g. EMCA?
- Expend collaborative work
  - Further disseminate outcomes and attract participants?
- Perform further harmonisation and disseminate
  - Promote harmonisation with endorsement of international agencies?

THANK YOU to all contributors!

Welcome to join EMCA!
www.emca-online.eu

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European Mosquito Control Association

Welcome to publish in JEMCA!

Journal of the emca European Mosquito Control Association
edited by Dr Francis Schaffner
Wageningen Academic Publishers
www.WageningenAcademic.com/JEMCA

Welcome to attend EMCA conference 2023 in Palma de Mallorca, 7-11 November 2023