



Welcome to the third **VectorNet** newsletter. **VectorNet** is a joint project of the European Food Safety Authority (EFSA) and the European Centre for Disease Prevention and Control (ECDC), which started in May 2014, and is now in its second iteration (2019–2023). The project is supported by a Scientific Coordination Committee with members from the Public and Animal Health community. In this project period, **VectorNet** aims to publish two newsletters per year.

ESTABLISHMENT OF THE VECTORNET ENTOMOLOGICAL NETWORK

The VectorNet Entomological Network (**VEN**) has been established and includes 50 country level network members from the EU (26), European Economic Union (EEU) (3), EU enlargement policy (7), European Neighbourhood Policy (ENP) (14).

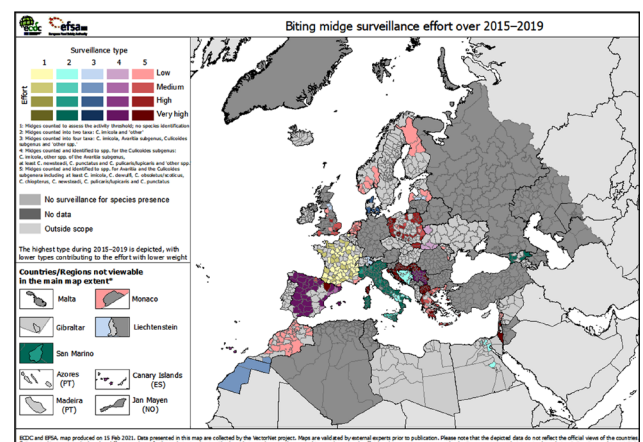
All members are entomologists or experts in entomology with an expertise in at least one of the four vector groups: mosquitoes, ticks, sand flies, or biting midges.

Up to now the **VEN** members have been requested to provide input in two large **VectorNet** surveys namely:

- Mapping of vector surveillance activities
- Governance of vector surveillance and control

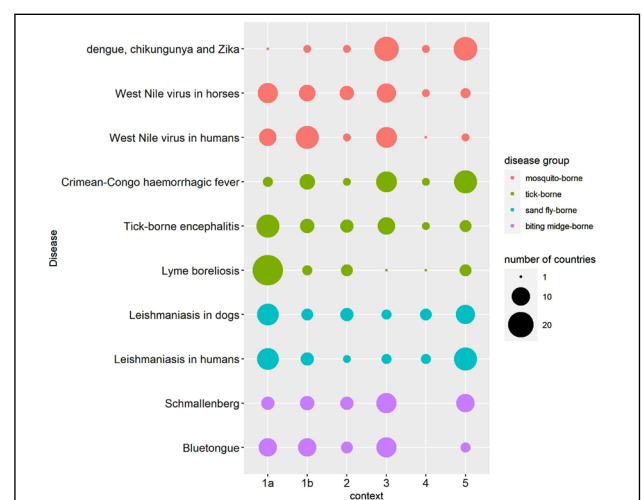
MAPPING VECTOR SURVEILLANCE ACTIVITIES

Through the **VEN**, **VectorNet** collected a substantial amount of data about recent vector surveillance activities in Europe and its neighbouring countries. The information collected is presented in maps, which provide a clear synoptic picture of not only the geographical coverage, but also the amount of effort involved and an indication of the methodologies employed for surveillance of each of the vector categories at sub-national level. They help to confirm where vector surveillance was carried out, and, together with distribution maps, inform where vectors have not been recorded, despite surveillance effort, thus improve our definition of vector absence.



GOVERNANCE OF VECTOR SURVEILLANCE AND CONTROL

Through the **VEN**, collected data on the governance of vector surveillance and control of each of four vector groups between the EU/EEA countries, EU enlargement policy countries, European Neighbourhood Policy partner countries and the UK and highlighted challenges and opportunities. Vector surveillance and control are key in the prevention of vector-borne disease transmission, but their organization can be complex due to the different stakeholders involved. The changing epidemiological situation poses a challenge to vector surveillance control practices. Countries that are not familiar with vector surveillance and control have to build up their expertise and experience. Further, the currently available control methods might be insufficient to cope with this challenge and innovative control tools and methods might be needed in the future.

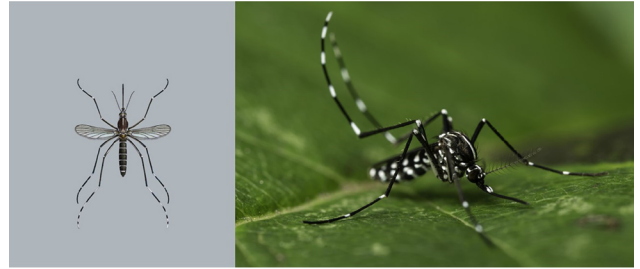


Overview of the epidemiological context* of the selected vector-borne diseases. The size of the bubble represents the number of countries.

* Context: 1a. Local transmission every year over the last five years (2016–2020); 1b. Sporadic local transmission i.e. single event or different events occurring during up to 4 years of local transmission out of the last five years; 2. Pathogen and vector are present; 3. Vector is present; 4. Pathogen is present; and 5. None of the above.

REVERSE IDENTIFICATION KEY FOR INVASIVE MOSQUITOES

VectorNet developed a so-called 'reverse' identification key for invasive mosquito species and native mosquitoes that can be confounded with invasive ones for lay persons. This invasive mosquito recognition tool is different from classic morphological identification tools for professional entomologist in that it functions like a 'reverse' identification key i.e. starting from an image or a drawing and in the second step details to verify the initial identifications.



The key is based on magnificent illustrations by Disa Eklöf and photos by Anders Lindström (examples of female Asian tiger mosquitoes).

NEWS FROM THE NETWORK

Due to the persistence COVID-pandemic, no face-to-face **VectorNet** meetings will take place in 2021:

- the Annual Entomological Network Meeting will take place online in October 2021.
- the training in Cluj-Napoca, Romania, to strengthen public and veterinary health professionals in their basic understanding of the role of entomology in the fight against vector-borne diseases has been postponed to 2022.

RECENTLY PUBLISHED

- Fact sheet for experts: *Fleas (2021)* by A. Mihalca
- [Surveillance maps](#) available since 23 February 2021
- New and updated vector distribution maps March 2021: <https://www.ecdc.europa.eu/en/disease-vectors/surveillance-and-disease-data>
- Webinar (live) Surveillance of introduction of vector species at points of entry. (11 December 2020) by J. Medlock, A. Stroo and F. Schaffner. Available on the ECDC Virtual Academy eva.ecdc.europa.eu

VectorNet European Network for Medical and Veterinary Entomology

LIVE Webinar: Surveillance of introduction of vector species at Points of Entry.

Presented by Arjan Stroo & Jolynn Medlock
Moderated by Francis Schaffner
Friday 11 December 14:00 CET

Hosted on ECDC Virtual Academy (EVA) platform

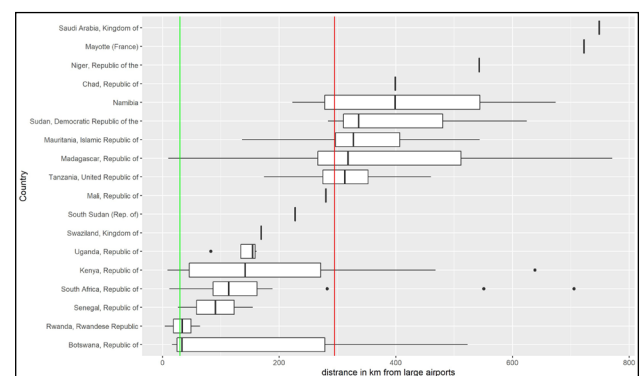
CONTENT

- Introduction to Points of Entry
- The experiences of
 - Netherlands with trades at risk, airport, ports
 - United Kingdom with vehicular transport sites
- Highlights

efsa European Food Safety Authority **ecdc** European Centre for Disease Prevention and Control

UPCOMING

- Spring 2021: Systematic literature review on the *Value of entomological endpoints for assessing the efficacy of vector control interventions.*
- July 2021 Live webinar: *Rift Valley Fever*
- Autumn 2021 Live webinar: *Current vector control practices and strategies against West Nile virus*
- Autumn 2021 Live webinar: *Availability and regulation of biocides for the control of vectors*
- November 2021: Next newsletter



The distance of the RVF outbreaks reported between 2006-2019 from large airports

The green line indicates the maximum active flight range of the RVF mosquito vectors. The red line indicates the limit of wind dispersal. <https://www.efsa.europa.eu/en/supporting/pub/en-1801>