

MediLabSecure (WP3) – Newsletter n°30 – February 2022



NEWS FROM MLS.ENTOMO

Dear network members,

As you remember, we imagined an entomological onsite workshop in Istanbul at the end of March, depending on the evolution of the COVID epidemic. It is now time to make a decision.

Today, there is no clear decline of the number of COVID cases in Istanbul and it is hard to be optimistic for the short term because the available data show a persistence of the transmission. This lack of visibility on the evolution of the epidemic prompts us to cancel the event, which seems to be the only realistic decision. The option to postpone it is not retained because the agenda of the project during the months of April and May is already very busy.

We are aware that this cancelation is really a pity because the entomology group was very willing to participate onsite. We received enthusiastic feedbacks from 13 of the 18 laboratories in the Euro-Med area, all of them asking invitations for 2 persons.

Bulent and his team in Turkey support this decision and we are particularly grateful to him for his involvement in the organisation, contact with the hotel owner, etc.

The event will be organised online. You will receive relevant info in due time.

In the interlude, we will continue to make our best to maintain contact as you will receive, in the next coming days, if you are in Euro-Med area and in one month and half if you are in Africa South of the Sahara, the external quality assessment (EQA) we prepared for you. This evaluation takes the format of a series of plates of pictures of adult and larva mosquitoes (about 40 plates for Euro-Med, and 50 for Africa S of S) that we propose you to identify and send us the names of their species. The EQAs will be entirely conducted through e-mails.

The Laboratory of Medical and Veterinary Entomology of Novi Sad, leaded by Professor Dušan Petrić, has been accredited by the Ministry of Education, science and technological development of Serbia and the National High Education Council as a Centre of Excellence One Health - Vectors and Climate. It is possible that the MediLabSecure project contributed to unleash the potential of this great team.

At the Pasteur Institute of Algeria, Dr Zoubir Harrat, Specialist in Medical Parasitology and Tropical Medicine, will retire and let Dr Kamel Benallal will become the next head of lab for our project in Algeria. Even if we look forward to meet again and work with Dr Benallal, we will miss Dr Harrat who has been a very active and knowledgeable member of the MediLabSecure network.

NEWS FROM THE REST OF THE 'MED ENTOMOL' WORLD

[MOOC Emerging and Re-emerging Viruses](#)

This two months long free MOOC, starting on the 15th of February 2022, describes well-known emerging and re-emerging viruses in great details. It discusses with renowned experts the conditions that favor their emergence, re-emergence and risk for causing worldwide viral pandemics. This MOOC also provides an update on the current Covid-19 pandemic.

[A One Health online course of the World Health Organization](#)

This course, in English, introduces the technical chapters of the Tripartite Zoonoses Guide (TZG). Country examples and practical guidance lead participants through the TZG and associated operational tools for strengthening One Health approaches for zoonotic diseases nationally and sub-nationally.

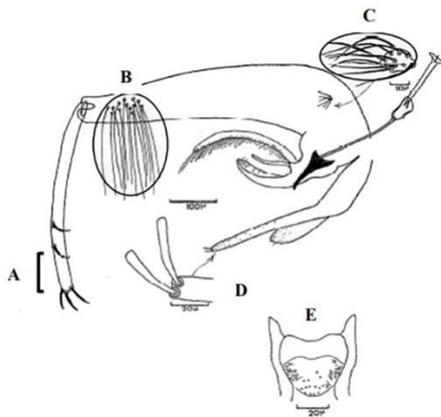
ENJOY READING

[Phlebotomine sand flies \(Diptera: Psychodidae\) of the Maghreb region: A systematic review of distribution, morphology, and role in the transmission of the pathogens](#)

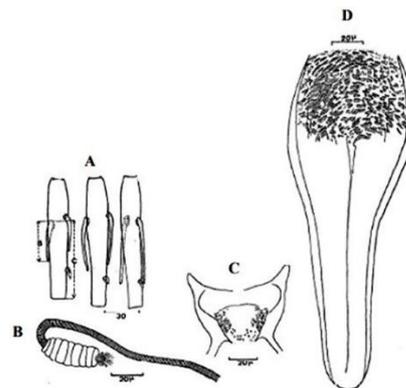
Kamal Eddine Benallal, Rafik Garni, Zoubir Harrat, Petr Volf, Vit Dvorak

Phlebotomine sand flies are important vectors of various human and animal pathogens such as *Bartonella bacilliformis*, *Phlebovirus*, and parasitic protozoa of the genus *Leishmania*, causative agent of leishmaniases that account among most significant vector-borne diseases.

The aim of this review is to summarize often fragmented information and to provide an updated list of sand fly species of the Maghreb region with illustration of species-specific morphological features and maps of their reported distribution.



Phlebotomus papatasi male¹



Phlebotomus papatasi female

¹ Phlebotomine sand flies (Diptera: Psychodidae) of the Maghreb region: A systematic review of distribution, morphology, and role in the transmission of the pathogens

Kamal Eddine Benallal, Rafik Garni, Zoubir Harrat, Petr Volf, Vit Dvorak

[Preparing an Insectary in Burkina Faso to Support Research in Genetic Technologies for Malaria Control](#)

Charles Guissou, M Megan Quinlan, Roger Sanou, Robert K Ouédraogo, Moussa Namountougou, Abdoulaye Diabaté

The National Biosafety Agency of Burkina Faso granted the permits for import of the self-limiting transgenic mosquito strain, which took place in November 2016, and for conducting studies in the “Institut de Recherche en Sciences de la Santé (IRSS)” facility in Bobo-Dioulasso. Compliance with permit terms and conditions of the permits and study protocols continued until the conclusion of studies, when the transgenic colonies were terminated.

This article outlines the experiences of the IRSS to support others undertaking such studies. The IRSS is contributing to the ongoing development of genetic technologies for malaria control. The ultimate objective of the innovation is to reduce malaria transmission by using GM mosquitoes of the same species released to reduce the disease-vectoring native populations of *Anopheles gambiae* s.l.

[Globe-Trotting *Aedes aegypti* and *Ae. albopictus*: Risk Factors for Arbovirus Pandemics](#)

Olivia Wesula Lwande, Vincent Obanda, Anders Lindström, Clas Ahlm, Magnus Evander, Jonas Näslund, Göran Bucht

This review aims at presenting the characteristics and abilities of *Ae. aegypti* and *Ae. albopictus*, which can drive a global public health risk, and suggests strategies for prevention and control. It presents the geographic range, reproduction and ecology, vector competence, genetic evolution, and biological and chemical control of these two mosquito species and how they have changed and developed over time combined with factors that may drive pandemics and mitigation measures. The authors conclude that more efforts should be geared toward the development of a concerted multidisciplinary approach.

If needed, we may help to get the full pdf of these articles.

If you have any suggestions or information you wish to share, please let us know and send an email to the discussion mls.entomo-all@listes.ird.fr

Best regards,

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MediLabSecure project

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All the previous entomo newsletters are available on the [MediLabSecure website](#).