

MediLabSecure (WP3) – Newsletter n°28 – June 2021



Dear network members,

Only 10 days to go before our **Online Network meeting of the MediLabSecure project** that will be held on **June 15 and 16th, 2021**. If not already done, please kindly register following this [link](#) where you can also find the agenda of the meeting. It will be a real pleasure to reconnect, network with all the experts from various components and to share experiences at country level on **“The impact on COVID-19 on preparedness and surveillance of vector-borne diseases”**. The «One Health Approach» will be promoted throughout the meeting as usually with MediLabSecure activities.

During this meeting, a 1 hour Parallele Session is scheduled just for our entomo group (**June 15 noon-1:00 pm**). This will constitutes a real opportunity to permit exchanges of information, professional or more personal ones.

NEWS FROM MLS.ENTOMO

> **Webinar MLS Entomo: On the 7th of July 2021, 11 am to 12:30 pm**, don't miss our webinar on Vector competence, mosquito-arbovirus relationships.

NEWS FROM THE REST OF THE 'MED ENTOMOL' WORLD

> **'Reverse' identification key for invasive mosquito species, a new [tool](#) for specialists and non-specialists**: the European Center for Disease Prevention and Control (ECDC) and the European Food Safety Authority (EFSA) have just launched a new tool – for specialists in the field and those who are not specialists yet. Indeed, this key provides the non-specialists with reference material to help recognize six invasive mosquito species that are present in the EU/EEA or have been intercepted in the past. It also contains nine native species that present morphological similarities with the invasive species.

> **MOOC on “How to write and publish a scientific article”**: is the first of the series "Cross-cutting skills for research careers". This MOOC is developed by the IRD within the framework of the Francophone Network of Excellence in Research Sciences (RESCIF), with the support of the ACE-Partner project (AFD, World Bank and AAU) and the SEP2D programme (AFD, FFEM, MEAE, IRD and MNHN) will be broadcasted on the FUN-MOOC platform. In a fun and clear way, it deciphers step by step the rules of

writing and the different stages of publication in international journals. This MOOC is mainly intended for PhD students and young researchers. If you are interested, please register [here](#).

> **Summer school KIM RIVE: Biodiversity & Pathogen Vectors, 14 to 17 September 2021 at the Tour du Valat in Camargues (between Montpellier and Marseille, France):** This summer school is intended for doctoral students, post-docts, young researchers, technicians and research engineers. The link between biodiversity loss and disease emergence is very often put forward, but the role of vectors as a component of biodiversity, the impacts of pest control on biodiversity, as well as the effects of biodiversity on vectors and on vector-borne diseases remain relatively unexplored. These are the areas that will be addressed during this summer school, which will combine workshops on reflection, methodology and fieldwork. The call is open to the international community, no geographical restrictions apply, but the summer school will be held in French unless otherwise stated. To apply, please fill in the registration form by following this [link](#).

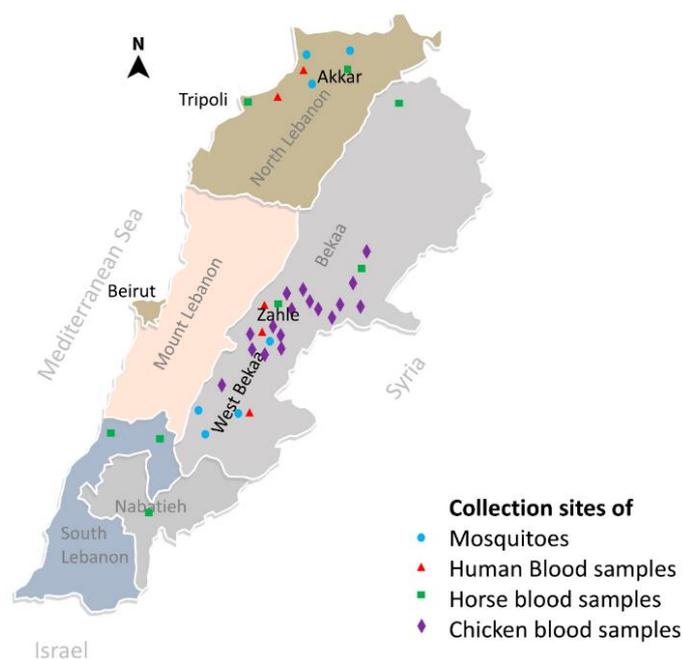
ENJOY READING : two papers of the MLS Entomo network

[Evidence of West Nile Virus Circulation in Lebanon](#)

Renée Zakhia, Alan P. Dupuis, Fayçal Khodr, Mahdi Fadel, Laura D. Kramer, Nabil Haddad

West Nile virus (WNV) has never been reported from Lebanon. Yet, this country is located on the flyway of migratory birds in the Middle East region. Serological screening was conducted to assess the potential circulation of this virus. Human, horse, and chicken sera were collected from the Bekaa and North districts. Specific IgG and IgY were first screened by ELISA. Then, positive samples were confirmed by plaque reduction neutralization test (PRNT). Besides this, adult mosquitoes were collected and tested for the presence of WNV RNA using conventional RT-PCR. Sera screening revealed a seroprevalence rate reaching 1.86% among humans and 2.47% among horses. Cross-reactions revealed by ELISA suggested the circulation of flaviviruses other than WNV. None of the tested mosquitoes was positive for WNV. The observed results constitute strong evidence of local exposure of the Lebanese population to this virus and the first report of equine WNV in Lebanon.

Map of Lebanon indicating the collection sites of mosquitoes and blood from human, horse and chicken hosts



[Mosquitoes, distribution and species richness in eight African countries: Cape Verde, Mauritania, Senegal, Gambia, Mali, Burkina Faso, Niger and Chad](#)

E.H. Ndiaye, A. Ould Mohamed Salem Boukhary, M. Diallo, R. Labbo, P. Boussès, G. Le Goff, V. Robert
Records of the presence/absence of mosquitoes (Diptera, Culicidae) were searched in the literature and on specialised websites for eight African countries: Cape Verde, Mauritania, Senegal, Gambia, Mali, Burkina Faso, Niger and Chad. In total, 216 species were recorded, belonging to 13 culicid genera: Anopheles (48 species), Aedeomyia (2), Aedes (62), Coquillettidia (6), Culex (54), Culiseta (1), Eretmapodites (7), Ficalbia (3), Lutzia (1), Mansonia (2), Mimomyia (7), Toxorhynchites (4) and Uranotaenia (19). The presence of these species in the study area is certain except for three species whose presence is doubtful. This species richness represents 6% of the global richness. The countries with the highest species richness are Burkina Faso (162 species), Senegal (142) and Mali (110); the country with the lowest is Cape Verde (11). This richness is lower in the north in hyper-arid climates and higher in the south in sub-humid climates. Chad is the least well inventoried country.

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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& Vincent ROBERT / WP3 leader
MediLabSecure project

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