

Vector-Borne Diseases in Libya

OIE Regional meeting on Vector-borne diseases in North Africa



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Rift Valley Fever (RVF)


- FAO/UOT Agreement no. 10/2019
- Date of signature: Wed 23 Jan, 2019
- Project no. OSRO/Lib/801/CHA
- Project name: Epidemiological Surveillance, Good Emergency Management Practices and Control of Deadly Zoonotic Diseases: Highly Pathogenic Avian Influenza (HPAI), Rift Valley Fever (RVF) and Rabies









Report 1
Training Workshop on Epidemiological Surveillance, Good Emergency Management Practices, Communication and Control of Zoonotic Diseases (Highly Pathogenic Avian Influenza, Rift Valley Fever and Rabies)




25-27 March 2019 Tripoli, Libya

Report 2

**Training Workshop on Epidemiological Surveillance, Good Emergency Management Practices, Communication and Control of Zoonotic Diseases
(Highly Pathogenic Avian Influenza, Rift Valley Fever and Rabies)**



2-4 April 2019 Benghazi, Libya

Report 3

**Training Workshop on Epidemiological Surveillance, Good Emergency Management Practices, Communication and Control of Zoonotic Diseases
(Highly Pathogenic Avian Influenza, Rift Valley Fever and Rabies)**



15-17 October 2019 Misrata, Libya



Report 4

**Training Workshop on Epidemiological Surveillance, Good Emergency Management Practices, Communication and Control of Zoonotic Diseases
(Highly Pathogenic Avian Influenza, Rift Valley Fever and Rabies)**



29-31 October 2019 Alzintan, Libya



Report 5

**Training Workshop on Epidemiological Surveillance, Good Emergency Management Practices, Communication and Control of Zoonotic Diseases
(Highly Pathogenic Avian Influenza, Rift Valley Fever and Rabies)**



31 Dec, 2019 - 2 Jan 2020 South Region, Libya



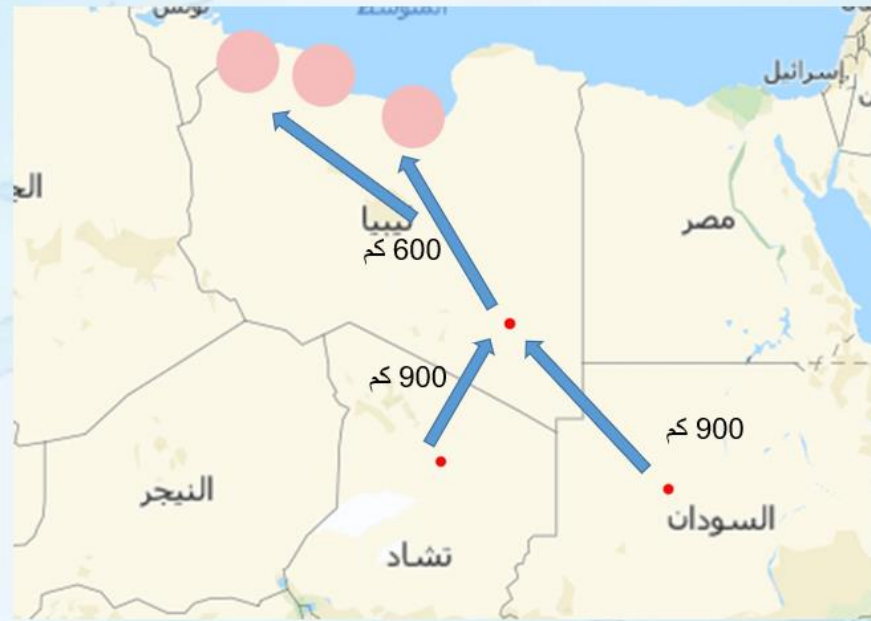
Materials and Results

- A total of 92 veterinarians belong to 46 cities located in 5 regions were trained
- More than 1300 serum samples were collected and tested
- All samples from the west, middle and east of Libya were negative
- Positive samples were detected in the south of Libya in January 2020

- The first detection was in Kufra city (ELISA)
- 2 positive samples out of 150 serum samples from sheep and goats
- More serum samples were collected and tested
- Total of 8 positive samples were detected in Kufra, Brak Shati and Awbari cities in the south of Libya



خارطة اتجاه حركة الحيوانات المهربة من السودان وتشاد إلى الكفرة ثم إلى إحديابيا ومصراتة والزاوية



Collaboration with EuFMD, FAO, IZSAM, ERFAN

- Identifying 8 hotspot areas (Tobruk, Al-Marj, Ajdabiya, Misrata, Tripoli, Zawia, Gharyan and Hamada Alhamra district)
- Herds with history of abortion
- More than 160 serum samples were collected along the border with Tunisia

A syndromic surveillance

- A syndromic surveillance programme has been launched with the assistance of EuFMD. The team involved in the activities was trained on data entry using the toolkit for mobile data collection KoBo Toolbox.
- 4 locations (Tobruk, Raqdalín, Ubari and Kufrah)

Entomological surveillance

- With the support of EuFMD, an online training course was carried out in collaboration with IZSAM and ERFAN
- Four participating from NCAH, NCDC, UoT and OMU
- Out of 8 targeted areas: started in Tripoli and Zawia

Collaboration with IZSAM



Bluetongue

- No previous work was done in order to know the species of *Culicoides* existing in Libya. Collecting and identifying vectors will be an important issue and will fill a crucial knowledge gap.
- Two Blacklight traps (Onderstepoort model) were received from IZSAM for surveying the presence and abundance and the species of *Culicoides* present in the Country.



Neutralizing antibodies were detected against the following BTV serotypes: BTV-1, BTV-2, BTV-3, BTV-4, BTV-9 and BTV-26

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Original Article

Exploiting serological data to understand the epidemiology of bluetongue virus serotypes circulating in Libya

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Abstract

The epidemiological patterns of Bluetongue (BT) in North Africa and Mediterranean Basin (MB) dramatically changed by emergence of subsequent episodes of novel bluetongue virus (BTV) serotypes with highly pathogenic indexes and socio-economic impacts. The objective of the study was to investigate the sero-prevalence and serotype distribution of BTV in Libya. During 2015-2016, a total of 826 serum samples were collected from domestic ruminants in Libya. All sera were assayed by competitive enzyme-linked immunosorbent assays (c-ELISA). C-Elisa-positive samples (43.3%; 173/400) were further analyzed by virus neutralization assay to

West Nile

- There are more than 580 serum samples from horses.
- More than 60 serum samples from dogs.
- These samples were shipped to Italy late February and will be tested in IZSAM.

Other Diseases planned to be tested:

- African Horse Sickness

- Equine Encephalosis

- Other diseases??

Vector control campaign by NCAH in Libya



Acknowledgments

○ EuFMD

○ IZSAM (Teramo), Italy

○ ERFAN

○ FAO, OIE and REMESA

Grazie

Merci

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