



Newsletter - November 2010

Complements of the season to you all! I hope you've been enjoying some of this lovely weather lately in between all your Xmas shopping. As usual we were completely unprepared this year and December has leapt out at us with heaps to do and so little time.

SAMPLES

During November, a total of 866 samples were collected by staff from all 12 District Health Boards, with 112 positive. Sampling numbers were up on last month and on this time last year. The specimens received were as follows:

Table with 3 columns: Species, Adults, Larvae. Rows include Aedes antipodeus, Ae. notoscriptus, Coquillettidia iracunda, Culex pervigilans, Cx. quinquefasciatus, Opifex fuscus, Exotics, and TOTAL.

and thus we need to import. We're not sure if anyone else is interested in purchasing a dipper, so please send us an email (enquiries@smsl.co.nz or taxonomy@nzbiosecure.net.nz) with your interest in the dipper to give us an idea on how many we may need to order. The shop is always open http://www.smsl.co.nz/.

Have a very safe and Happy Christmas!

XMAS HOURS

This year, a skeleton staff will be on hand between Christmas and New Year 29th-31st Dec and the week after New Year 5th-7th Jan to process any mozzie samples. Please ensure you courier your samples on the 29th or 30th and 5th or 6th to ensure they arrive at the laboratory in time for processing before the weekend.

INCURSIONS/INTERCEPTIONS

There were two interception callouts during November. The first involved a non mozzie found in a box of pears at Waikanae New World and for the second, Culex pervigilans larvae were collected out of a drain sump in AIAL by MAF.

On-call hours will remain the same, with an entomologist available from 7am-11pm each day. Please remember to call 0800 MOZZIE (66 99 43) to be connected to the entomologist on-call.

WEBSITE

Continued thanks to those PHS staff who have adopted the on-line purchase option for your lab supplies, and for your feedback and requests for products, we appreciate your willingness to try something new and hope you find this service to your liking.



Happy Christmas!

We've had several enquiries and purchases of the larvae dipper (pictured above) and are now out of stock. This dipper is made in the USA



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TICK-BORNE DISEASES

ALKHURMA VIRUS - ITALY ex EGYPT

Source: Environmental Health Threats Forum [edited] 26 Nov 2010 reported on ProMED Mail 30 Nov 2010.

The 1st cases of Alkhurma haemorrhagic fever to be seen outside Saudi Arabia are reported online in the December 2010 edition of Emerging Infectious Diseases (1). Fabrizio Carletti and colleagues indicated that 2 people who visited a camel market in Egypt at different times during 2010 developed symptoms of the disease after returning to Italy. "The detection of 2 independent infection events for travelers who visited the same area in a restricted period strongly supports the hypothesis of sustained local ALKV [Alkhurma virus] circulation," write the authors.

The virus, which is classified as a high-biosafety pathogen, infects camels and sheep. Most human cases of Alkhurma haemorrhagic fever are seen in butchers, who are more likely to come in contact with contaminated blood of an infected animal. But people can also catch the virus through the bite of an infected *Ornithodoros savignyi* tick or by drinking unpasteurised milk.

The disease is fatal in about 25 per cent of patients. It was discovered in the mid-1990s and named after the city where the 1st fatal case occurred. About 40 cases have been reported since then, never outside Saudi Arabia.

The 1st case of imported disease described by the authors, a 64 year old man, told doctors that he got bitten on the foot by what looked like a tick while visiting a camel market in April this year [2010]. Within 2 days after the bite, he developed a high fever, chills, and nausea among other symptoms. On returning to Italy, his condition worsened, but he was discharged from hospital in mid-May 2010 after successful treatment.

In the meantime, blood samples were sent for testing to discover the cause of his illness. Initial tests ruled out dengue and West Nile viruses, but after suspecting that a flavivirus might be involved, medical scientists used genus-specific reverse transcription-PCR to identify genetic material very similar to that of the Alkhurma virus.

Weeks later, blood samples from another patient also tested positive for the virus. The 2 patients visited the region around one month apart.

Carletti and colleagues call for future research to determine how far the virus has spread in the region, and to weigh up the risk to locals and visitors. But the virus should now be added to the list of travel-related pathogens under surveillance, they say, and travellers should be advised about the risks of coming in contact with animals in endemic areas.

In the same issue of the journal, scientists probing risk factors for Alkhurma haemorrhagic fever in the Saudi city of Najran report (2) that some people exposed to the virus develop symptoms that are too mild to be detected as clinical illness. Abdullah Alzahrani and colleagues say this suggests that only severe cases may have been recorded so far, artificially increasing the case-fatality rate for the disease.

The finding also points to the possibility that the virus may circulate more widely than previously thought, according to the authors, in other parts of Saudi Arabia or in other countries. "The history of the reported disease in Makkah [Meccah] during the Hajj, when thousands of livestock are imported to Saudi Arabia, and the existence of the outbreak in Najran, which is at the border with Yemen, necessitate further studies in adjacent countries."

Alzahrani and colleagues draw their conclusions from an investigation into 28 cases of the



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disease identified in Najran city by active surveillance between 2006 and 2009. For each patient, they selected 2 people who had no antibodies against the virus and compared risk factors between the 2 groups using survey data about their exposure history, clinical features of any illness and demographic factors.

Backing results from previous studies, the analysis found that people were more likely to contract Alkhurma virus by having contact with animals or getting bitten by a tick, but not through unpasteurised milk or the bite of mosquitoes, a suspected vector for the virus. The study also suggests that living near a farm could be an additional risk factor for the disease.

References:

1. Carletti F, Castilletti C, Di Caro A, Capobianchi MR, Nisii C, Suter F, et al. Alkhurma hemorrhagic fever in travelers returning from Egypt, 2010. *Emerg Infect Dis.* 2010; 16(12) doi: 10.3201/eid1612101092. <http://www.cdc.gov/eid/content/16/12/1882.htm>
2. Alzahrani AG, Al Shaiban HM, Al Mazroa MA, Al-Hayani O, MacNeil A, Rollin PE, et al. Alkhurma hemorrhagic fever in humans, Najran, Saudi Arabia. *Emerg Infect Dis.* 2010; 16(12). doi: 10.3201/eid1612.100417. <http://www.cdc.gov/eid/content/16/12/1882.htm>

SANDFLY-BORNE DISEASES

[NOTE: different to New Zealand Blackflies commonly referred to as 'sandflies'.]

LEISHMANIASIS – AFGHANISTAN (HERAT PROVINCE)

Source: United Nations Assistance Mission in Afghanistan (UNAMA) [edited] 4 Nov 2010 reported on ProMED Mail 7 Nov 2010

In the Islam Qala area, on the border with Iran, a new outbreak of Leishmaniasis has recently afflicted the local population. On Sat 30 Oct 2010 tens of women and men lined up at a specialized clinic supported by the World Health Organization (WHO), where patients receive free treatment.

The parasitic disease - caused by sand fly bites - leaves disfiguring skin sores which only a very painful injection of Sodium Stibogluconate, repeatedly administered, can cure.

In Khosan district of Herat province the number of infections has increased during the past few years, with an estimated 10 000 to 15 000 cases according to the provincial health department.

A female patient, 34, her face disfigured, can't afford the medication to treat the disease. "I don't have enough money to go to the private clinics; I am relieved today that there is a free clinic here where I can go to for treatment," she explains.

But Dr Mohammed Yonos Nadeem, head of the Leishmaniasis and Malaria National Control Programme in Herat, calls for more support: "The injections and bed nets treated with insecticide that we have here today cover only 150 patients. This is not enough and, to better control the transmission, we need more support not only in Kohsan district but also in all parts of the province."

In an emergency initiative WHO additionally distributed 1200 nets treated with insecticide, to cover doors, windows or beds for 3600 people. This is part of a larger plan to stop further transmission of the disease in the district and beyond.

[Leishmania is endemic in Afghanistan. The above report on the increase in incidence of leishmaniasis in Herat Province was brought to the forefront as a country-wide leishmaniasis effort is being launched with the assistance of United Nations. A recent WHO, Weekly Epidemiologic Record (WER) presented a review of the challenges of leishmaniasis in Afghanistan, mentioning that in Kabul alone, there were an estimate of at least 200 000 cases of leishmaniasis, with an increase in annual case load from 17 000 to approximately 65 000 in 2009.]



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Mozzie Photo of the Month

Interception photographs

When we identify an exotic mosquito specimen from within New Zealand, photographs of diagnostic characters are forwarded to Prof. Richard Russell and associates at ICPMR in Sydney. Examples of the types of photographs used for confirmation of the identification of adult mosquito specimens are included below.



Aedes vittiger adult female (March 2010 interception)