



BORDER HEALTH NEWSLETTER - FEBRUARY 2011

WELCOME!

Hi everyone. I'm feeling extremely lucky to say we're all safe here at our Lincoln site just south of Christchurch and I hope that anyone living or operating from the Christchurch CBD or surrounds is getting on okay. Our thoughts are with you all and those who have lost homes and loved ones during the quake on February 22nd.

INCURSIONS/INTERCEPTIONS

February was a very busy month, mostly for Mark, who seemed to be on-call when ever there was a flood of after hours specimens. We responded to a total of 15 interception events, of which most were handled by Mark – lucky him!

A summary of the details for all events follows:

9/02/11- 1 female *Cx. quinquefasciatus* ex AIAL MAF lab

11/02/11- 1 female *Cx. quinquefasciatus* & 2 male *Cx. pervigilans* ex a transitional facility in East Tamaki, Auckland, found alive in an open container carrying clothes from China.

13/02/11- 1 female *Ae. antipodeus*, 1 female *Cx. quinquefasciatus*, 1 female *Cx. pervigilans* & 1 unidentifiable in the AIAL arrivals hall

15/02/11- 2 female *Cx. quinquefasciatus* ex AIAL

15/02/11- 5 female *Cx. quinquefasciatus* ex AIAL

16-17/02/11- (5 interception events) totalling 4 female & 1 male *Cx. quinquefasciatus* all at AIAL

17/02/11- 1 female & 1 male *Cx. quinquefasciatus* ex Fresh Direct, Mt Wellington, Auckland

17-18/02/11- (3 interception events) totalling 3 female *Cx. quinquefasciatus*, 1 female *Ae. notoscriptus* & 1 female *Ae. antipodeus* ex AIAL

24/02/11- 1 female & 1 male *Cx. quinquefasciatus* ex AIAL MAF laboratory.

SAMPLES

During February, 822 samples were collected by staff from 12 District Health Boards, with 282 positive. Sampling numbers were up on last month and about the same as this time last year. The specimens received were:

Species	Adults	Larvae
NZ Mozzies		
<i>Aedes antipodeus</i>	35	0
<i>Ae. australis</i>	0	1
<i>Ae. notoscriptus</i>	586	2119
<i>Coquillettidia iracunda</i>	10	0
<i>Culex pervigilans</i>	265	1533
<i>Cx. quinquefasciatus</i>	749	667
<i>Opifex fuscus</i>	0	45
Exotics	0	0
TOTAL MOSQUITOES	1645	4365

SAMPLING SUPPLIES

If you require sampling supplies, remember that you can purchase new supplies from our online shop www.smsl.co.nz/shop. If the item you require is not listed, email us at taxonomy@nzbiosecure.net.nz and we will look into supplying it for you. Some recyclable products, such as bubblewrap envelopes and sampling tubes are periodically available from the lab for reuse. Again, email the taxonomy email address if you would like some sent to you.

Photo of the Month



Bloodfed female *Culex annulirostris*



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MOSQUITO-BORNE DISEASES

ROSS RIVER VIRUS - AUSTRALIA: (VICTORIA)

Source: The Geelong Advertiser [edited] 15 Feb 2011, reported on ProMED Mail 22 Feb 2011
Health authorities have warned Geelong residents to avoid mosquito bites after a dramatic increase in cases of Ross River fever [virus infections]. There have been 15 cases of Ross River fever reported to the health department in the Barwon south western region so far this year [2011], the same number as was reported for the whole of last year [2010].

Ross River fever is a mosquito borne [virus] disease that can have flu-like symptoms such as joint pain.

Barwon Health department of infectious diseases associate professor Eugene Athan yesterday [14 Feb 2011] warned that Geelong residents could expect more mosquito-borne viruses such as Ross River fever and dengue fever. "We actually don't see much Ross River virus in Victoria. It's fairly common in northern New South Wales and Queensland. "So this is a genuine phenomenon and it's related to heavy rains and an increased mosquito population.



Map ex mapsof.net

MURRAY VALLEY ENCEPHALITIS - AUSTRALIA: (VICTORIA)

Source: The Age [edited] 23 Feb 2011 reported on ProMED Mail 24 Feb 2011
Health authorities are urging Victorians to protect themselves against mosquito bites because of fears the insects are carrying a life-

threatening virus that has not been diagnosed in a Victorian for 37 years. Victoria's chief health officer Dr John Carnie yesterday [22 Feb 2011] said "sentinel chickens" in the state's north, which are designed to alert health authorities to emerging mosquito-borne diseases, had tested positive for Murray Valley encephalitis [MVE] virus this week.

It is the 2nd time the virus has been detected in the chickens, which were strategically placed across the state after an outbreak of the rare disease hit Victoria in 1974. No human cases have been noted in Victoria since the 1974 epidemic. Dr Carnie said chickens were diagnosed with the virus this week in Mildura, Robinvale, Kerang, Barmah, and Tooleybuc across the border in New South Wales near Swan Hill.

He said although the virus had not been detected in a human, Victorians living along the Murray River should avoid being bitten by mosquitoes. He said when outdoors people should wear long, loose-fitting clothes, and use insect repellent containing picaridin or DEET and ensure door and window screens were in good repair.

Dr Carnie said people with symptoms of the virus, which include severe headache, high fever, drowsiness, tremor, and seizures, should seek urgent medical attention. While some people with MVE experience no or few symptoms, a small proportion will develop a severe viral brain infection that can kill them or result in permanent brain damage.

[The most recent human cases of Murray Valley encephalitis (MVE) in humans in Australia have occurred in the Western state and Northern Territories in 2009, far distant from Victoria state. It is remarkable that the health authorities in Victoria state have maintained an active sentinel chicken surveillance effort for



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detection of MVE virus transmission after a 37 year absence of human cases.

Recent heavy rains and flooding in Victoria, especially along the Murray River have doubtless created a significant increase in mosquito breeding habitats. MVE virus is transmitted by the common banded mosquito (*Culex annulirostris*), which bites after sundown in the 1st two hours of the night. It is found throughout Australia. Avoidance of mosquito bites is the only practical measure for prevention of MVE virus infection. There is no commercially available vaccine.]

YELLOW FEVER - AFRICA: UGANDA (NORTH)

Source: Allvoices [edited] 27 Jan 2011 reported on ProMED Mail 3 Feb 2011

Health officials in Uganda have launched a yellow fever [YF] vaccination drive in the north where an outbreak of the disease has caused 53 deaths and 224 infections in 10 districts since late 2010.

Almost a million people are expected to be vaccinated in the campaign, launched by Health Minister Richard Nduhura on 23 Jan [2011]. The outbreak of yellow fever last year [2010] was so mysterious because the disease was first thought to be [an] Ebola[virus infection] and then pneumonic plague, and then later on it was identified by the Ministry of Health as yellow fever.

The disease first hit Abim and Agago districts, but later on spread to Kitgum and other 10 districts in northern Uganda. Nathan Kenya-Mugisha, the acting Director General of Health Services and experts from the Ministry of Health, the World Health Organization, and the Centers for Disease Control positively confirmed the disease.

A total of 174 people have been affected by yellow fever. Of these, 45 people died in 10 districts of Northern Uganda that include Abim, Lamwo, Kitgum, Pader, Gulu, Arua, Kaabong, Nebbi, Agago, and Lira districts.

Yellow fever, which had not been seen in Uganda for about 40 years, has claimed the lives of 48 individuals in the north of the country, sending 187 others to hospital.

Doctors and local leaders in northern Uganda worked tirelessly to find the true cause and prevent the spread of the unknown disease at the time. Radio announcements and other means of sensitization were used by the government of Uganda and the World Health Organization. Residents were advised that anybody who presents suffering high fevers, muscle and back pain, headache, shivering, loss of appetite abdominal pain, vomiting, and diarrhea, should report to the nearest health facility for treatment.

Meanwhile, the Ministry of Health has also disclosed plans to carry out yellow fever vaccination in northern Uganda. The plans for the vaccination came out because of the many deaths and continued spread of infections in the districts of Kitgum, Abim, Agago, Lamwo, Pader, Gulu, Arua, and Kaabong.

All foreign diplomatic services are advising their citizens to avoid travelling to northern Uganda unless vaccinated. And today [27 Jan 2011], as the vaccination is going on, local leaders say they fear there may not be sufficient medicine as people are coming from far and wide.

John Bosco Ogwok, Kitgum district local council chairman, said they were vaccinating people from the neighboring country, Sudan, who were coming for the exercise. Vaccination points, Ogwok said, especially those near the border with Southern Sudan, have registered large numbers of Sudanese, while Ugandans from neighboring districts such as Gulu and Lira have also turned up for vaccination. Grace Ogwang, a nursing officer in Kitgum district coordinating outpost vaccination points, said that health officials were vaccinating everyone who turned up. "Our ethics in the practice of medicine is non-discrimination; whether you



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are from Kitgum or not, we don't discriminate," Ogwang said. "We are vaccinating everybody coming to the vaccination point, so long as you are above 6 months of age."

Kitgum is one of the 5 districts where the 1st phase of vaccination is taking place in northern Uganda. The others are Pader, Lamwo, Agago, and Abim. Health Minister Nduhura said the remaining districts in the north would begin the programme during a 2nd phase whose start date depended on resolving funding issues.

In Africa, World Health Organization [WHO] estimates 508 million people in 32 countries (including Uganda) are at risk. The number of yellow fever cases has increased over the past

two decades due to declining population immunity to infection, deforestation, urbanization, population movements, and climate change.

In the case of Uganda, the genomic sequencing of the virus strain responsible for the current yellow fever outbreak is 98 percent identical to the East African Couma-Ethiopia genotype, according to a WHO brief. This is an indication that the virus has been circulating in the region.

Kenya, the Democratic Republic of Congo, and Sudan reported yellow fever outbreaks in 1992-1993. A recent outbreak occurred in Sudan in 2003.