



NEW ZEALAND BIOSECURE

Entomology Laboratory



BORDER HEALTH NEWSLETTER - NOVEMBER 2011

WELCOME!

Finally we are entering into the summer period with more typical temperatures for this time of year but average to below average sunshine levels for all areas apart from the east coast. Rainfall varied greatly across the country with around half the normal amount of rain for November recorded in areas north of Taupo, but more than twice the usual amounts in Otago, South Canterbury and the Lakes District. Throughout much of the rest of the South Island, rainfall was also higher than expected. The North Island experienced far more settled weather than the South Island whose west coast was battered by high winds, rain and cooler temperatures.

As the temperatures continue to increase and weather stabilises, we unsurprisingly see numbers of mosquito larvae and adults start to climb. However, with the warm weather and very dry conditions in the north of the country we are seeing habitat disappear quite quickly. As an example of how dry it was, Tauranga and Rotorua experienced their 2nd and 4th driest Novembers on record respectively. Adult numbers especially are down on what was found this time last year but this may be a reflection of sampling effort.

The same warning rings true as last month, that as many species can make very efficient use of very small amounts of water we should still keep a close watch across the country. And if some areas continue to see increasing temperatures as well as increased levels of rain, then there is likely to be ample habitat for effective mosquito production.

If you would like to see NIWAs full outlook for your area you will find it here:

<http://www.niwa.co.nz/node/102848>

INCURSIONS/INTERCEPTIONS

There were three interception events in November with two positive identifications of mosquitoes. On the 13th of November 10 *Aedes notoscriptus* and 30 *Culex quinquefasciatus* larvae were discovered in pooled water within old tyres aboard a boat arriving from Brisbane. On the 23rd of November, a suspected adult mosquito was discovered in a container from China which had been carrying clothes. It was subsequently identified as a non mosquito specimen. Then on the 29th of November a single adult mosquito was discovered live within a tent inspected by MAF staff in the arrivals area of Christchurch international airport. The tent had most recently been used at a hostel ground in Cairns before being packed away. The specimen identified was a female *Verrallina funerea*.

SAMPLES

During September, 469 samples were collected by staff from 11 District Health Boards, with 71 positive. Sampling numbers were similar to last month though with a greater number of adult mosquitoes collected. Sample numbers were down compared to this point last year. The specimens received were:

Species	Adults	Larvae
NZ Mozzies		
<i>Aedes antipodeus</i>	1	0
<i>Ae. notoscriptus</i>	40	903
<i>Ae. australis</i>	0	1
<i>Culex pervigilans</i>	15	279
<i>Cx. quinquefasciatus</i>	0	292
Exotics		
<i>Verrallina funerea</i>	1	0
TOTAL MOSQUITOES	57	1476

WEBSITE

The weather is definitely improving and while dry in many areas, those mosquitoes don't



need a lot of water or time to go through their life cycle and are increasing in numbers everywhere.

With the onset of the interception and incursion season, adding Aquatain to your response tool kit is suggested. A little of this new product goes a long way, a few drops in a tyre is all that's required to prevent the larvae from emerging. There's more information on the website for Aquatain that might be of interest.

<http://www.smsl.co.nz/shop/Mosquito+Control+%26+Repellents/Aquatain+250ml.html>

It works better than Agnique, in that it doesn't accumulate at the edges and you can see an example of how it affects surface water on our facebook page.

<https://www.facebook.com/pages/Southern-Monitoring-Services-Ltd/137970749556495?ref=ts>

We hope you are finding this on-line service useful and are always happy to address any enquiries or matters you may wish to discuss. Please feel free to contact us through the website, or email us directly at enquiries@smsl.co.nz or taxonomy@nzbiosecure.net.nz

MOSQUITO-BORNE DISEASES

JAPANESE ENCEPHALITIS AND OTHER - INDIA (37): UTTAR PRADESH

A ProMED-mail post

<<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases <<http://www.isid.org>>

Date: Fri 2 Dec 2011

Source: Indian Express [edited]

<<http://www.indianexpress.com/news/change-in-clinical-profile-alerts-docs/883200>>

Certain changes in the clinical profile of encephalitis patients in eastern UP this year

have become a new cause of concern for the doctors. Apart from the usual high fever and convulsions, the doctors have noticed that most patients are now taking longer to recover, having rashes all over their body and also heart inflation [sic].

As encephalitis patients are given symptomatic treatment, changes in the clinical profile have been noticed by the doctors at Gorakhpur's BRD Medical College, which receives patients from all over eastern UP. They are now planning to bring out a clinical paper on the subject and also study the subject.

"Patients coming to us this year are more serious as their illness has become prolonged now. Till last year [2010], the average stay of an encephalitis patient at the hospital used to be 2 weeks, but the recovery time has increased to 3 weeks this year. Symptoms like high fever and convulsions continue for 3 weeks now. Besides, children are coming with rashes all over their body and inflation of the heart," said Dr KP Kushwaha, head of the Pediatrics Department at BRD Medical College. "Rashes used to be there in some cases and even heart inflation, but it was very rare. Now more and more patients are coming in with these complaints and we are observing and analysing the situation," said Dr Kushwaha.

Over the last few years, after Japanese encephalitis (JE) [virus infection] cases started declining following regular vaccination, the clinical profile of the patients had remained almost the same; the only change has been a slight increase in the number of adult patients. This is for the 1st time that doctors have noticed major changes in the clinical profile of the patients.

Denying any possibility of mutation in the virus, Dr MM Gore, senior scientist at the National Institute of Virology, who is also in charge of the NIV field laboratory at Gorakhpur, said: "It is too early to come to any conclusion, because even doctors are still observing the clinical



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changes". He added: "As far as I have come to know, symptoms of JE patients remain the same and it is the other forms of encephalitis where doctors have observed changes in the clinical profile."

The problem with the experts is that apart from the JE virus, the viruses affecting the majority of the patients have not yet been identified. For this reason, all non-JE patients are grouped together in a category called acute encephalitis syndrome (AES). The lack of identification of AES viruses makes it difficult to ascertain the causes behind these clinical changes.

"It is too early to conclude anything. After the outbreak is over in the next few days, we will analyse the data. The treatment in the meantime will not be a problem because patients are given symptomatic treatment which can change with the change in the clinical profile," said a health official.

[Byline: Maulshree Seth]

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Communicated by:
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[The above comments point out the problem with the reports on acute encephalitis syndrome coming out of northeastern India and are on target -- there is no etiological diagnosis for many, perhaps the majority, of encephalitis cases that have occurred there this year (2011). Previous reports often mention an association of non-JE virus cases with contaminated water, suggesting one or more enteroviruses. Other reports indicate that all cases are due to JE virus infection.

Adequate virological diagnosis is critically needed to understand the situation there, and plan for prevention and control, as well as to

better understand the changes in the clinical picture described in the above report.

ProMED thanks Ronan Kelly for sending in this report.