



## BORDER HEALTH NEWSLETTER - JUNE 2013

### WELCOME!

Greetings from a wild and stormy Canterbury day! As the hail keeps rattling on my window I'm happy to be inside writing about mozzies rather than out there somewhere trying to find some ☺. The bitter temperatures and high rainfall we've experienced in many areas around the country over the last few weeks is clearly reflected in the drop in positive samples collected compared to last month, bringing them down to what we expect from a cold wintry month.

### INCURSIONS/INTERCEPTIONS

There were two interception callouts during the month of June, both involved non-mozzies found on the 13<sup>th</sup>. One was found in Christchurch, dead in a container ex the UK and the other (a fungus gnat) was discovered in Wellington by MPI.

### Photo of the Month



Photo ex Australian Products Company <http://www.aussieproducts.com/prodinfo.asp?number=GAROAD%20%20%20%20MOZZIE>

Purchasing one of these mozzie signs may be one way to keep people out of your back yard, although probably not much call for them in most parts of NZ in June!

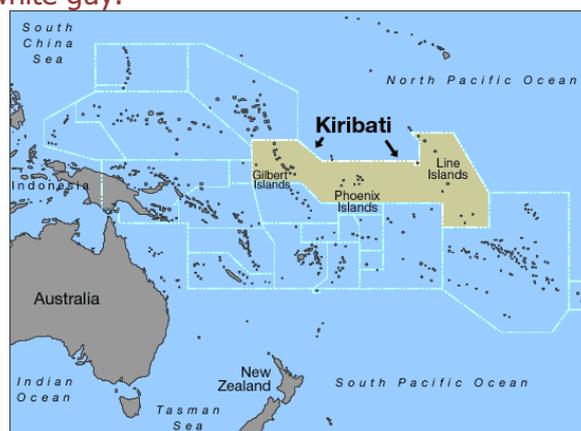
### SAMPLES

During June, 560 samples were collected by staff from 11 District Health Boards, with 35 positive. Sampling numbers were down on last month but up on this time last year, while the number of positive samples was less than last month but about the same as this time last year. The specimens received were:

Species	Adults	Larvae
<b>NZ Mozzies</b>		
<i>Aedes antipodeus</i>	1	0
<i>Ae. australis</i>	0	2
<i>Ae. notoscriptus</i>	0	548
<i>Culex pervigilans</i>	1	59
<i>Cx. quinquefasciatus</i>	2	154
<b>Exotics</b>	0	0
<b>TOTAL MOSQUITOES</b>	<b>4</b>	<b>763</b>

### FOOD FOR THOUGHT FROM THE NZ DCTO

I have been reading the latest lab newsletter in Kiribati. It is a very hot day and I am on the porch in the shade watching the odd lazy *Ae. aegypti* (well I think it's *Ae. aegypti*) flying around my ankles looking for a piece of the old white guy.



Tarawa has had outbreaks of Dengue in the past and I would think it is probable that there will be further arboviral outbreaks in the not too distant future. I have my own hypothesis about what may happen in the Pacific as regards mosquito vectored infections and it goes like this:



Most island states already have medical vectors well established. Many have reservoirs of arboviruses as well. What may change the game is the increasing connections with Asia through:

- Increased air travel with flights coming directly out of Asia to Fiji and other destinations
- The increased numbers of Asian workers coming into the Pacific working in construction and tourism. Much of this is driven by the Chinese who have funded some massive infrastructure projects in places such as Samoa and Fiji.

As I understand it Singapore is having a major epidemic of Dengue. Now Singapore has probably the world's most ruthless public health monitoring but despite the best efforts some 9000 cases of Dengue have been reported this year, more than twice the number for 2012. Singapore's problem is generated for the most part by the importation of guest labourers from China, Indonesia and Malaysia, and they provide a continual supply of viraemic hosts for the Singaporean Vectors to feed on.

It is not unreasonable to postulate that the influx of guest workers into the Pacific from Asia has the potential to create a similar risk. And it might not be just Dengue that comes with them - now that Chikungunya is being detected in PNG and the Solomons, how long before the disease spreads further East through Melanesia and into Micronesia and Polynesia?

Think about it...  
JR Gardner

## MOSQUITO-BORNE DISEASES

### ROSS RIVER VIRUS - JAPAN ex AUSTRALIA: (VICTORIA)

Source: ProMED Mail 14 June 2013

We have recently confirmed a case of acute Ross River fever in a Japanese traveler

from Australia. There are no prior reports on Ross River fever in travelers in Japan.

The traveler, a 31 year old female, visited Melbourne [Victoria] between January to May 2013 and developed symptoms of Ross River fever on March 2013, with arthralgia and swelling in her ankle and knee. Her arthralgia subsequently worsened, and she was unable to walk. Her symptoms elevated [lessened?] in early May 2013, and she regained her ability to walk. She received further treatment for hand and finger arthralgia upon her return to Japan in May 2013. The traveler was positive for Ross River virus IgM and IgG antibody.

There has been an increase in the number of RRV disease cases in Australia in recent years (ProMED-mail posts 20120325.1079874 and 20120302.1059212). Although imported RRV cases are rare (Travel Med Infect Dis. 2012;10(3):129-34), no vaccine or therapeutics are available for the disease. Thus, it is important for travelers, medical practitioners, and public health authorities to be aware of the risk for RRV infection and take appropriate measures.

### MOZZIE MODELS CREATE BUZZ AS VOLUNTEERS JOIN DENGUE BATTLE

Source: The Straits Times by Melissa Pang 3 July 2013, featured on Asia One - Your Health <http://yourhealth.asiaone.com/content/mozzie-models-create-buzz-volunteers-join-dengue-battle>

SINGAPORE - Four football-size mosquitoes have been raising eyebrows at a construction site in Tuas - all in the name of dengue prevention and education.

These mosquito models are the brainchild of the construction site's environmental safety officer Khaja Moinudeen Anvar Hasan.



NEW ZEALAND BIOSECURE

Entomology Laboratory



File Photo: ST

Mr Khaja, a dengue volunteer, who made a mosquito model to educate construction workers on dengue prevention.

When the number of dengue cases started to climb in April, he decided to sign up as a dengue volunteer with the National Environment Agency (NEA).

Given that his responsibilities include keeping his workplace pest-free, he felt it was his duty to find out more about the disease.

"One person alone cannot stop dengue. It is important for each of us to do it, and everyone needs to know how," said the 38-year-old from Chennai, India, who has been working in Singapore since 2007.

At an NEA training session, he learnt about how to identify *Aedes* mosquitoes, the life cycle of a mosquito, and how to prevent dengue from spreading.

He then tasked two colleagues, Mr Arumugam Umapathy, 33, and Mr Udayan Marimuthu, 30, to make models of the male and female *Aedes* mosquitoes to help educate the construction workers at his workplace.

A model of the *Culex* mosquito - responsible for chikungunya - as well as that of the *Anopheles*

mosquito, which causes malaria, were also produced.

They spent about a week making the four models, using polyform and wire before painstakingly painting them.

The mosquito models, displayed with posters containing information about the insects and the diseases they spread, have piqued the curiosity of workers.

"Some take photos of the models and ask questions about dengue," said Mr Khaja, who belongs to NEA's 2,000-strong Dengue Prevention Volunteer Group. "Others highlight areas that might breed mosquitoes and even do their own daily mozzie wipeouts. Overall there is greater interest in the topic."

Regular dengue updates, prevention talks, and distribution of educational materials in four languages have also helped keep the China Railway 11 Bureau Group Corporation construction site, where the Tuas West MRT station is being built, dengue-free.

Between June 23 and 28, 643 cases of dengue were reported in Singapore.

In the previous week, there were 842 cases - the highest weekly figure recorded in the year.

In the past six months, more than 11,000 people have come down with dengue, while four have died.

Members of the public who are interested in becoming dengue volunteers may call 1800-CALL-NEA for more details.