



BORDER HEALTH NEWSLETTER – NOVEMBER 2013

WELCOME!

Hi everyone. Feels like summer is really here! We have already had lots of great days swimming at the beach. Although I am no expert (As I have only lived here two years), I don't think that's very normal for Wellington!

NIWA agrees, recording a warm, dry month across much of the country:

Temperatures were above average (0.5-1.2°C above November average), or well above average (more than 1.2°C above November average), throughout most of New Zealand. The exceptions were limited eastern parts of Otago, Canterbury, Marlborough, Gisborne, and northern parts of Northland, where near average temperatures (within 0.5°C of November average) were recorded. Numerous record or near-record high temperatures occurred across the country.

Below normal rainfall (50-79 percent of November normal) or well below normal (less than 50 percent of November normal) was recorded across much of the South Island, the Kapiti Coast and coastal parts of northern Taranaki, with record or near-record low rainfall totals observed in the southeast of the South Island. Well above normal rainfall (more than 150 percent of November normal) was observed in south-eastern parts of the North Island, with above normal rainfall (120-149 percent of November normal) observed across parts of the Central Plateau, Bay of Plenty and Waikato. Near normal rainfall (within 20 percent of November normal) was recorded for the remainder of the North Island.

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

<http://www.niwa.co.nz/climate/sco/seasonal-climate-outlook-october-december-2013>

INCURSIONS/INTERCEPTIONS

There were three interception events during November, one adult non mosquito, one *Cx. quinquefasciatus*, and one *Cx. pervigilans*, all thought to be local specimens.

SAMPLES

During November, 903 samples were collected by staff from 11 District Health Boards, with 140 positive. Samples collected were higher than last month and also than this time last year. Of the positive samples found, larval numbers were the same as last month, but higher than this time last year. Adults were higher than last month and also than this time last year. The specimens received were as follows:

Species	Adults	Larvae
NZ Mozzies		
<i>Ae antipodeus</i>	17	0
<i>Ae. notoscriptus</i>	71	633
<i>Culex pervigilans</i>	9	1355
<i>Cx. quinquefasciatus</i>	40	262
<i>Opifex fuscus</i>	1	83
<i>Cq iracunda</i>	1	0
<i>Ae australis</i>	0	1
Exotics		
TOTAL MOSQUITOES	139	2334

WEBSITE

A very warm and dry November with a few days of intermittent rain has resulted in more mosquitoes being about. Aquatain for mosquito control in closed pooled areas is a great product, and the Bti dunks and granules are very handy. Both product types provide a quick kill and residual.

We have had a few orders from PHU's that have gone astray recently. We apologise for the inconvenience, however please ensure you or your purchasing department send the order



NEW ZEALAND BIOSECURE



Entomology Laboratory



direct to enquiries@smsl.co.nz for speedy processing.

The website e-store will remain open over the Christmas and New year period, however shipping may be delayed during between 20th Dec and 6th January.

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.

Have a safe and happy Christmas and enjoy the festive season!

SURVEILLANCE WORKSHOP

The Surveillance Workshop for Medical Vectors of Public Health Significance was once again held in the pleasant surroundings of Salty Dog Inn, Snell's Beach. 17 attendees descended into the small township and they all appeared to enjoy the learning environment as well as taking time to soak in the views. All attendees really liked the training considering it to be relevant and helpful and great to include the wider range of vectors such as snakes and spiders –John Fountains presentation on these two vectors were much appreciated as were all the presenters –all feedback was encouraging. The demonstration of control equipment at Whenuapai airbase and the hands on opportunity to use some of the fogging gear was considered helpful as well as a lot of fun.

Some of the recommendations from the attendees included continuation of updating about all vectors of health significance; further information about the database including what happens to the information and to visit a port to see how the surveillance programme may work on site. These ideas will be taken on board by SMS for next year's training.

WARMER WINTER, MORE MOZZIES

Expect to hear that baleful high hum above your bed more often this summer - a mild winter has meant mosquitoes are likely to be out in force.

The warmest winter on record, combined with plenty of rainfall in many parts of the country, is predicted to have produced a bumper breeding season for mosquitoes as temperatures heat up.

"People will start to notice a few mosquito bites from now onwards, with that late January and February period being when the most bugs are around," said Dr Darren Ward of Landcare Research. SOURCE: NZ Herald, to read the full article:

http://www.nzherald.co.nz/lifestyle/news/article.cfm?c_id=6&objectid=11155572

INSECT-BORNE DISEASES

Zika Virus in New Caledonia

Following a confirmed outbreak in French Polynesia: 3 cases of Zika fever have been reported in New Caledonia. All cases were imported from French Polynesia. Symptoms of Zika fever include high temperature, headache, red eyes, skin rash, muscle aches, and joint pains. The mosquito [capable of] carrying the virus in New Caledonia is *Aedes aegypti* that can bite during the day but not night, both inside and out, and lives around buildings in urban areas. Travellers coming from French Polynesia when arriving in New Caledonia are being advised to use insect repellents, during 7 days after landing, and wear long-sleeved shirts and long pants, and to consult a general practitioner if symptoms are occurring. Sleeping in screened rooms or under bed nets is recommended only for young children and sick people. If these individuals were viremic on arrival, there is a significant risk of ongoing transmission of



Zika virus in New Caledonia. Source: Promed, Dr Sylvie Laumond Epidemiologist, Sanitary Action Department New Caledonia Health and Social Affairs Department [The number of reported Zika virus infection cases imported into New Caledonia has increased from 2 to 3. The islands in French Polynesia affected by the Zika virus outbreak this year (2013) are: Tahiti, Moorea, Raiatea, Tahaa, Bora Bora, Nuku Hiva, and Arutua. There was a major outbreak of Zika virus infections on Yap and nearby islands of the Federated Republic of Micronesia in 2007.

Chikungunya India

CHIKUNGUNYA INDIA (MAHARASHTRA) *****

While the winter chill has brought down the number of [dengue] cases last week, warmer days as predicted by the [Pune] Met department has again spiked up the cases with ten new infections being reported on Sunday [24 Nov 2013].

Dr S T Pardeshi, acting medical chief of Pune Municipal Corporation (PMC) attributed this rise to variations in weather. On several days the morning chill is soon offset by warm weather during the day, he said. According to IMD, the trend of rising temperature is likely to continue for the next 24 hours. The minimum temperature is likely to be go up to 15 degree Celsius [59 F], a release said.

"We are picking up new cases daily as the health department has been collating data from private hospitals. Earlier, we would get cases only from state run Sassoon general hospital or PMC run hospitals,"

Pardeshi admitted. According to Dr Rajesh Gadia, consulting physician at KEM hospital, it is a known fact that cases of [chikungunya and dengue virus] infections rise post monsoon. The sudden rain few weeks ago also led to accumulation of stagnant water with the existing garbage, he said. Pardeshi said that their ongoing survey has

detected a large number of [_Aedes_ vector mosquito] breeding spots at households. Doctors admit though that the cases have been mild with few being hospitalized. As against the large number of dengue cases, there have been 38 cases of chikungunya from January till date, Pardeshi said. [Chikungunya virus is endemic in India and causes sporadic outbreaks in various parts of the country. Not surprisingly, Pune is having a mixed outbreak of chikungunya and dengue virus infections since both viruses are transmitted by the same vector mosquito. If the chikungunya virus vector mosquitoes, _Aedes aegypti_, are relatively abundant as is likely, the occurrence of additional cases can be expected unless the vector control efforts are effective or temperatures decline further. Although the fatality rate for chikungunya virus infections is low to nil, morbidity can be high with persistent arthralgia that can last weeks to months. There is no commercially available chikungunya virus vaccine.

Source Promed: Indian Express: <http://www.indianexpress.com/news/dengue-threat-continues-in-pune/1199266/>

Dengue update: Asia & America's

DENGUE/DHF UPDATE (98): ASIA *****

In this update: Cases in various countries:

- Pakistan
 - Punjab province. 30 Nov 2013. Dengue 2385 cases, 25 new cases in the last 24 hours.
 - Lahore, Punjab province. 26 Nov 2013. Dengue 1400 cases. Increasing.
 - Ludhiana and vicinity, Punjab province. 29 Nov 2013. Dengue 1468 cases; deaths: 6.
 - Sindh province, cases. 30 Nov 2013. Dengue 5058 cases.
- Municipalities most affected Karachi 4414 cases, Hyderabad 577 cases.
- Sindh province, deaths. 25 Nov 2013. Dengue deaths 30 in province; most deaths (25) are in Karachi.



India

- Delhi. 25 Nov 2013. Dengue 5212 cases in the capital, with an additional 67 cases reported from the National Capital Region, which includes parts of Haryana and Uttar Pradesh states adjoining Delhi; deaths 6.
- Karnataka state. 26 Nov 2013. Dengue 6023 cases; deaths 12.
- Dakshina Kannada district, Karnataka state. 1 Dec 2013. Dengue (susp.) 612 cases, (conf.) 119 cases. Increasing.
- Pune, Maharashtra state. 25 Nov 2013. Dengue 741 cases. Increasing.

Nepal (Chitwan district). 27 Nov 2013. Dengue 215 cases. Increasing.

Taiwan (national). 27 Nov 2013. Despite colder temperatures, dengue fever infections are still occurring near peak rates. 6 outbreaks of DHF throughout Taiwan in 2013, with 5 reported in Pingtung County and one in Tainan City. Source: Promed 3 Dec 13

DENGUE/DHF UPDATE (97): AMERICAS

In this update: Cases in various countries: North America

USA

- New York (Long Island, Suffolk county) Date: Tue 26 Nov 2013.

Regarding the locally acquired dengue fever case in Suffolk County, NY, *Aedes albopictus* is definitely present in the area, and has been for the past several years. Overwintering does take place.

We have been monitoring *Ae. albopictus* populations in the state, and the species is thought to overwinter now as far north as Putnam County, north of New York City. Anecdotally, *Ae. albopictus* has been reported to be one of the most prevalent mosquitoes in the general New York City metropolitan area,

and individual cases of tropical mosquito-borne diseases like this, can indeed occur. The ingredients are there, particularly given the volume of travel from disease endemic areas into metropolitan airports. One of our education messages resulting from this case will be that physicians be aware of tropical mosquito borne diseases. An astute local physician suspected dengue, even though the case patient had no international travel in the past several years.

Byron Backenson, New York State Department of Health [ProMED-mail thanks Byron Backenson for responding to the query about which vector could be involved in the locally acquired dengue virus infection in Long Island, Suffolk county, New York. Now we know that, as suspected, *Aedes albopictus* is the mosquito involved, and is capable of going into diapause and overwintering there. As Byron Backenson pointed out, with *Ae. albopictus* common in New York city, a locality that is an arrival destination for many individuals coming from dengue endemic areas around the world, the risk of ongoing transmission is real.

Mexico and Central America

Mexico

- Baja California Sur state. 26 Nov 2013. Dengue 2024 cases; DHF/serious 78 cases. Municipality most affected: La Paz 1686 cases.
- Sonora state. 29 Nov 2013. Dengue 647 cases; DHF/serious 128 cases.

Honduras (national). 29 Nov 2013. Dengue during week 46 [week ending 16 Nov 2013], 832 cases. Declining.

Nicaragua (national). 25 Nov 2013. Dengue (conf.) 8105 cases; deaths 22. "Red" health alert since 24 Oct 2013.



NEW ZEALAND BIOSECURE

Entomology Laboratory

Photo of the Month



And for those planning on going to the World Cup:

South

America

Brazil (national). 28 Nov 2013. Dengue risk at World Cup venues will reach peak transmission season in Fortaleza, Natal, and Salvador states. Measure to prevent exposure:
- choose accommodation with screened windows and doors, and air conditioning
- use insecticides indoors
- wear clothing that covers the arms and legs, especially during early morning and late afternoon, when mosquitoes tend to bite
- apply insect repellent to clothing and exposed skin.

<<http://www.bbc.co.uk/news/health-25118849>>

[A map showing the probability of a dengue fever outbreak and the location of the World Cup venues can be accessed at the URL above. Individuals planning to attend the World Cup games should not be deterred by dengue risk, as long as the preventive measures listed above are followed.

Source: ProMED, 3 Dec 13



For those that plan on going to the world cup next year in Brazil: Enjoy your time but remember to wear repellent & Clothing that covers your skin.

Source photo: http://www.123rf.com/photo_14204157_poster-brazil-2014-soccer-football-world-cup.html



New York's first locally acquired case of dengue was detected this year. *Aedes aegypti* was originally thought responsible, but it is now thought *Ae. albopictus* is the likely candidate. Source photo: <http://www.examiner.com/article/dengue-fever-found-suburban-new-york-city>