BORDER HEALTH NEWSLETTER - March 2012

WELCOME!

Hello all. I hope you've been enjoying some of the gorgeous autumn weather we've been having lately, ideal for mozzie hunting.

INCURSIONS/INTERCEPTIONS

There were no interception callouts during March.

SAMPLES

During March, 718 samples were collected by staff from 12 District Health Boards, with 193 positive. Sampling numbers were up on last month and on par with this time last year. The specimens received were:

Species	Adults	Larvae
NZ Mozzies		
Aedes antipodeus	4	2
Ae. australis	0	14
Ae. notoscriptus	0	397
Ae. subalbirostris	0	7
Coquillettidia iracunda	1	0
Culex pervigilans	26	1532
Cx. quinquefasciatus	30	1313
Opifex fuscus	0	8
Exotics	0	0
TOTAL MOSQUITOES	**458**	**4791**

MOSQUITO-BORNE DISEASES

KIWIS IN MALARIA BREAKTHROUGH

Source: Fairfax NZ News, 8 Apr 2012
http://www.stuff.co.nz/national/health/6709345/Kiwis-in-malaria-breakthrough

An anti-malaria drug developed in New Zealand has passed its first pre-clinical test, raising hopes for the more than one million people killed by the disease each year.

The experimental drug, first synthesised by Industrial Research Limited, a Crown research institute, targets the parasite responsible for malaria, a mosquito-borne, infectious disease that manifests in severe shivering and can result in coma and death. Pregnant women are among the most vulnerable, and children can suffer brain damage from anaemia as parasites overwhelm their red blood cells.

There is no long-term vaccine for the disease, and parasites – which harvest the host's DNA because they don't have their own – can become resistant to treatments, says Dr Gary Evans, the principal scientist of IRL's Carbohydrate Chemistry Group. But early efficacy trials have shown that the new compound blocks the enzyme used to harvest DNA, clearing the parasite within seven days.

"The best drug currently available takes three days to work, which is too long to monitor the effects on patients who often move around," Evans said. "We want a drug where we can watch them being treated and know they're cured."

The new drug, which appears to have no side effects, has been five years in the making, with Evans involved from day one.

The first trial was carried out in Panama on owl monkeys, a nocturnal species that can be infected by the same parasites as humans.

The monkeys were monitored during the trial, and no deaths resulted.

"There's a lot more concern on the side effects of drugs and in people suing," Evans says.

"Everyone's so ultra-cautious about making these drugs safe. But we keep doing research in New Zealand because we can't rely on the rest of the world.

"We haven't cured cancer, we haven't cured malaria. It's not appropriate to wait," he said.

New Zealand Pharmaceuticals, which is capable of manufacturing the drug's active ingredient, is following developments closely.

"We hope to manufacture it as our contribution to the future of this malaria drug," NZ Pharmaceuticals business development manager Selwyn Yorke said.

ROSS RIVER VIRUS - AUSTRALIA (WA)

Source: WA Today [edited] 1 Mar 2012 reported on ProMED Mail 3 Mar 2012
http://www.watoday.com.au/wa-news/ross-river-cases-spike-in-cockburn-20120301-1u4sp.html

A Perth council has issued a warning about mosquito-borne Ross River virus after it emerged that in the area more people have contracted the virus in the past 2 months than in all of 2011. In a statement today, the City of Cockburn said it had 62 reported cases of Ross River virus in the area since 1 Jan [2012], almost triple the 21 cases reported in 2011.

There has been a similar rise across the state in the past 2 months, with 511 cases state-wide since the start of the year [2012]. This is more than the total number of cases in all of 2010, when there was just 245. By the same time last year [2011], there was just 245 cases of the virus reported state-wide. [245 cases in each of these 2 years (2010 and 2011)?]

The number of cases of Ross River [virus infection] over the past 2 months have been the worst since the Department of Health's online records began in January 2008.

The City of Cockburn has warned residents in Atwell, Success, Hammond Park and Aubin Grove to take extra precautions in preventing mosquito bites, especially during sunset and for 3 hours after sunset.

The City's Environmental Health officers have carried out trapping adult mosquitoes across Cockburn to determine potential breeding sites and are taking action to reduce mosquito numbers and potential disease risk. Suburbs to the east of Thomsons Lake within the City are at the highest risk.

According to the Department of Health, symptoms can include skin rashes, sore and painful joints, tiredness, fever and headaches. It starts between 3 - 21 days after a mosquito bite, and can last for several months. Fever, nausea and skin rashes usually disappear within the 1st 2 weeks of the illness developing, but the joint, muscle and tendon pain can last for much longer.

There is no cure for Ross River virus, and the only prevention is to avoid being bitten by mosquitoes carrying the disease. Ross River virus [transmission] is most active between September and May, and people living within 3 - 5 km [1-3 mi] of saltmarshes or brackish wetland are at greater risk.

TICK-BORNE DISEASES

AUSTRALIANS HAVE NEW WORRY - A DEADLY TICK

Source: Fairfax Media, 19 Mar 2012
http://www.stuff.co.nz/world/australia/6600001/Australians-have-new-worry-a-deadly-tick

A potentially lethal tick infection newly identified in Australia has mysteriously emerged on the NSW south coast.

Doctors have revealed the first reported Australian case of human babesiosis, a tick-borne infection that carries a 5 to 10 per cent fatality rate, higher than the death rate from the most common tick bite infections.

The victim was a 56-year-old man from the south coast who died, it is thought, partly as a result of babesiosis.

His infection was discovered only by chance, when his blood samples were re-checked four months after he had been admitted to Canberra

Hospital with serious injuries after a car crash in November 2010.

In a report published today in the Medical Journal of Australia, doctors say the infection probably contributed to his death from multi-organ failure last April.

The report of the first babesiosis case in Australia thought to have been locally acquired had raised "intriguing questions" about how the infection is spread in Australia, the lead author of the report, Sanjaya Senanayake, of the Australian National University, said.

The likely host or carrier would be a rodent. In the US, where babesiosis has been a not uncommon problem in recent years, the infection tick is carried by the white-footed mouse.

The fact that the babesiosis strain identified from the south coast patient was very similar in molecular type to the US strain suggested it had arrived recently in evolutionary terms, possibly with a rodent migration of about 200 years ago to Australia.

The infection may not have been identified until now because it had never been reported. Many people do not report tick bites and an estimated one third do not even realise the cause of their discomfort, Associate Professor Senanayake said.

Photo of the Month

This plush black soft toy mosquito is available for purchase from the Tapir and Friends Animal online store. They have a toy version of just about every animal you can imagine including an entire section on insects, spiders and scorpions! Check it out if you have a moment (www.tapirback.com).