



BORDER HEALTH NEWSLETTER - JANUARY 2011

WELCOME!

Already into February, I hope your year is going well! The mozzies are out in force with nuisance complaints being reported from around the country and the number of mozzie callouts significantly increased.

INCURSIONS/INTERCEPTIONS

There were six interception callouts during January, all occurring when Mark was oncall! They were all from Auckland; two from the Ports of Auckland – one a non-mosquito and the other larvae of *Aedes notoscriptus* possibly from Australia, the rest of the callouts occurred at Auckland International Airport and all involved *Culex quinquefasciatus* suspected to be of New Zealand origin.

LIGHT TRAP SERVICING

As your light traps are getting older, you may be finding your gas regulators are releasing CO₂ either far too slowly or much too quickly. The grey regulators supplied by SMS-NZB back in 2003 are adjustable, so it may be a simple case of having them recalibrated or in some cases where they have been used a lot outdoors, they could need a bit of reconditioning. See the website shop – Light Traps (www.smsl.co.nz) for further details.

However, in the situation that you need to replace a regulator or you may just want another to increase your trapping capacity, you can source new regulators from Norgren. They are located throughout New Zealand so you will probably have a local outlet. There are off the shelf options available but they tend to be attached to unnecessary gauges etc. and cost more than the units you have. I would advise taking your unit into Norgren and asking for the same. They will need to order them in from the USA, but even so, cost about \$100 less than the off the shelf option whilst being specifically designed to do the job you want them to do.

SAMPLES

During January, 768 samples were collected by staff from 12 District Health Boards, with 197 positive. Sampling numbers were down slightly on last month which is expected during the holiday season and on this time last year, however the number of positive samples was increased on both. The specimens received were:

Species	Adults	Larvae
NZ Mozzies		
<i>Aedes antipodeus</i>	0	3
<i>Ae. notoscriptus</i>	126	1858
<i>Coquillettidia iracunda</i>	22	0
<i>Culex pervigilans</i>	52	1511
<i>Cx. quinquefasciatus</i>	117	885
<i>Opifex fuscus</i>	0	52
Exotics	0	0
TOTAL MOSQUITOES	317	4309

WEBSITE

The website is becoming increasingly popular as a resource of mosquito-related information and products for control. The enquiry form is being well used by members of the public seeking advice about their backyard nuisances and it certainly seems the internet users are on the increase.

PHS are able to use the purchase order option for any supplies that are required, this is followed up with an invoice direct to you. Please ensure you include an order number for referencing in the invoice.

We are always looking for products for sale or suggestions for enhancing our service promotion, so if you have any suggestions please forward them through: enquiries@smsl.co.nz or taxonomy@nzbiosecure.net.nz.



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MOSQUITO-BORNE DISEASES

NEW MOSQUITO MAKES MALARIA FIGHT HARDER

Source: Reuters, 4 Feb 2011 reported on TVNZ website <http://tvnz.co.nz/health-news/new-mosquito-makes-malaria-fight-harder-4012654>

Scientists have discovered a new type of mosquito in Africa unlike any documented before and say it could further complicate the fight to control malaria.

Scientists from France who collected mosquitoes from ponds near villages in Burkina Faso say they identified a subtype of the *Anopheles gambiae* mosquito that is highly susceptible to infection with the malaria parasite, likes to rest outside, not indoors, and can therefore evade most current control measures.

"They are very susceptible to the human malaria parasite, we know they belong to a species that has an exquisite preference for human blood, and we know they are abundant in the population," said Ken Vernick, who discovered the mosquito with colleagues at the Unit of Hosts, Vectors and Pathogens at the French National Center for Scientific Research in Paris.

Vernick said the researchers were not yet able to quantify how much malaria transmission this new mosquito subtype is responsible for, but they feared it might be a major factor.

"What we can say is that it's unlikely they're harmless," he said in a telephone interview.

Malaria is an infectious disease spread by mosquitoes that threatens up to half the world's population. Most of its victims are children under five in poor countries in sub-Saharan Africa.

The World Health Organisation's (WHO) latest malaria report found that some progress against the disease has been made over the past decade, with deaths estimated to have

dropped to 781,000 in 2009 from nearly a million in 2000.



Photo: James Gathany / CDC 1994

http://phil.cdc.gov/PHIL/Images/09262002/00008/A.gambiae.1354.p_lores.jpg

"Never ending battle"

In a study in the journal *Science*, the French team said the newly-identified mosquito, nicknamed Goundry after one of the villages near where it was discovered, was unlike any that has turned up in collections before.

This is probably because nearly all mosquitoes collected for research in the past have been taken from inside human dwellings, they said, where the insects are easier to catch.

"A few scattered studies over the years have suggested that the vector population was not just indoors, but that there was more to the story," Vernick said, which was why his team decided to collect mosquitoes from outside and study them more closely.

Having found the new subtype, the team grew new generations of it in the laboratory and found that it was significantly more susceptible to the malaria parasite than recorded indoor types. This suggests the Goundry may be quite young in evolutionary terms, Vernick said, and may even have evolved as an outdoor subtype



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as a way of resisting indoor control measures such as spraying insecticides or encouraging people to sleep under insecticide-treated mosquito nets.

The WHO, which has called for faster research and development of new anti-malarial drugs, said late last year that the international community could stop malaria deaths by 2015 if it put in massive levels of investment. But Vernick said discoveries such as this one added to what he called the "never-ending battle" against the disease.

"The parasite is smarter than all the immunologists that study it... and the mosquito is smarter than all the vector biologists that study it," he said. "It's not a fair fight."

YELLOW FEVER - AFRICA: UGANDA, NORTH

Source: International Rescue Committee [edited] 5 Jan 2011, reported on ProMED Mail 7 Jan 2011

The International Rescue Committee (IRC) is responding to a rare outbreak of yellow fever which has so far claimed almost 50 lives in northern Uganda. To help curb the spread of the disease and treat those already infected, the IRC is training Ugandan health workers and community volunteers in the northern districts of Kitgum and Lamwo to detect, refer and treat the disease and is providing drugs, disinfectants, and protective gear including gloves and masks.

The IRC will also assist in a government-run vaccination campaign that that will reach 2.5 million people in Uganda's northern districts. Meanwhile, an IRC ambulance is carrying patients from isolated communities to hospitals. When the vaccination campaign begins later this month [January 2011], IRC health teams will help transport vaccines from storage facilities to inoculation sites.

Dr. Alex Opio Chono, who directs the IRC's health programs in Uganda, said that the IRC is now focused on promoting preventative

hygiene, bringing information to the public, and strengthening community involvement in detecting and reporting symptoms of yellow fever. "Our teams are travelling around the countryside, informing people about yellow fever and where they can receive inoculations," Dr. Chono said. "In collaboration with the district health authorities, we are also launching an information campaign with posters, radio spots, radio talk shows and community meetings."

Yellow fever, [caused by a virus] transmitted by infected mosquitoes, was last recorded in Uganda almost 40 years ago, according to health officials. The disease has a wide range of symptoms from nausea and vomiting to jaundice, bleeding and kidney failure. About half of those who develop severe symptoms and are untreated die from the disease.

The outbreak is affecting an area still recovering from 2 decades of civil war between the rebel Lord's Resistance Army and the Ugandan government. "The war destroyed many health facilities, and there is a severe shortage of trained medical staff, making this area particularly ill-equipped to handle an outbreak of such a serious disease," said Cristine Betters, the IRC director in Uganda.

ROSS RIVER/BARMAH FOREST VIRUSES - AUSTRALIA (SA)

Source: Sky News 11 Jan 2011 reported on ProMED Mail 14 Jan 2011

Mosquito-borne viruses [are] on the rise in South Australia. Health authorities in South Australia say a rise in mosquito-borne diseases has prompted a warning to residents and holidaymakers in the state's Riverland area to protect themselves from being bitten.

The Advertiser reports that 70 people have been infected with the Ross River and Barmah Forest viruses in December [2010], well up on the 28 cases reported a year ago. SA Health says it'll be carrying out mosquito control measures in public areas.



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Photo of the Month



Aren't you glad you don't live in a country which needs signs warning that there are mosquitoes!!!

Photo ex

<http://coolaggregator.wordpress.com/category/health/>