BORDER HEALTH NEWSLETTER

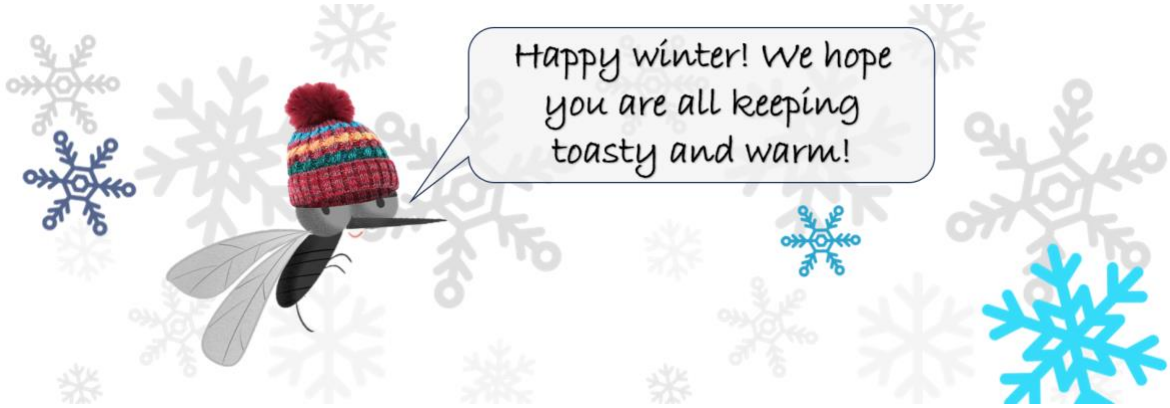
July 2024

NAU MAI, HAERE MAI - WELCOME!

Kia ora koutou katoa,

It has been another busy month here in the lab with the responses in Nelson and Auckland continuing and preparation for the Border Health and Ship Sanitation Certification Course here in Wellington. As always it was fantastic to meet you all at the course and we hope you all enjoyed it as much as we did!

Mosquito numbers for this month are below, along with a quick fact sheet about *Bti* and its use. You can also find a short breakdown of the *Culex pipiens* complex. As always, we very much appreciate everyone's efforts and support!



Happy reading!

SURVEILLANCE

During July a total of 1613 routine surveillance, enhanced surveillance, and various survey samples were collected by staff from 12 PHUs (Figure 1). The samples included 47 positive larval samples and 33 positive adult samples, leading to a total of 971 larvae and 48 adults identified over the past month (Table 1).

Aedes notoscriptus is the dominant larval species this month, which is the same as July last year and last month (Table 1).

Compared to this same month last year, the total number of larvae has shown a decrease (13%) while adult numbers have shown an increase (269%) (Table 1).

Compared to the previous month, the total number of larvae and adults have shown a decrease (21 and 69 respectively%).

Table 1. Adult and larvae sampled by the New Zealand surveillance program during July 2023 & 2024

Species (common name)	Adults		Larvae	
	July 24	July 23	July 24	July 23
Aedes antipodeus (winter mosquito)	-	1	-	-
Ae notoscriptus (striped mosquito)	13	-	887	742
Ae subalbirostris (no common name)	-	-	-	1
Cx pervigilans (vigilant mosquito)	1	3	58	174
Cx quinquefasciatus (southern house mosquito)	32	7	16	174
Culex sp.	1	2	-	-
Opifex fuscus (rock pool mosquito)	-	-	10	23
Total	**47**	**13**	**971**	**1114**

The highest number of larvae sampled this month was obtained in Northland (808 larvae) followed by Taranaki (55 larvae) (Figure 1).

In total, four mosquito species have been collected this month (Table 1), same number as collected last month.

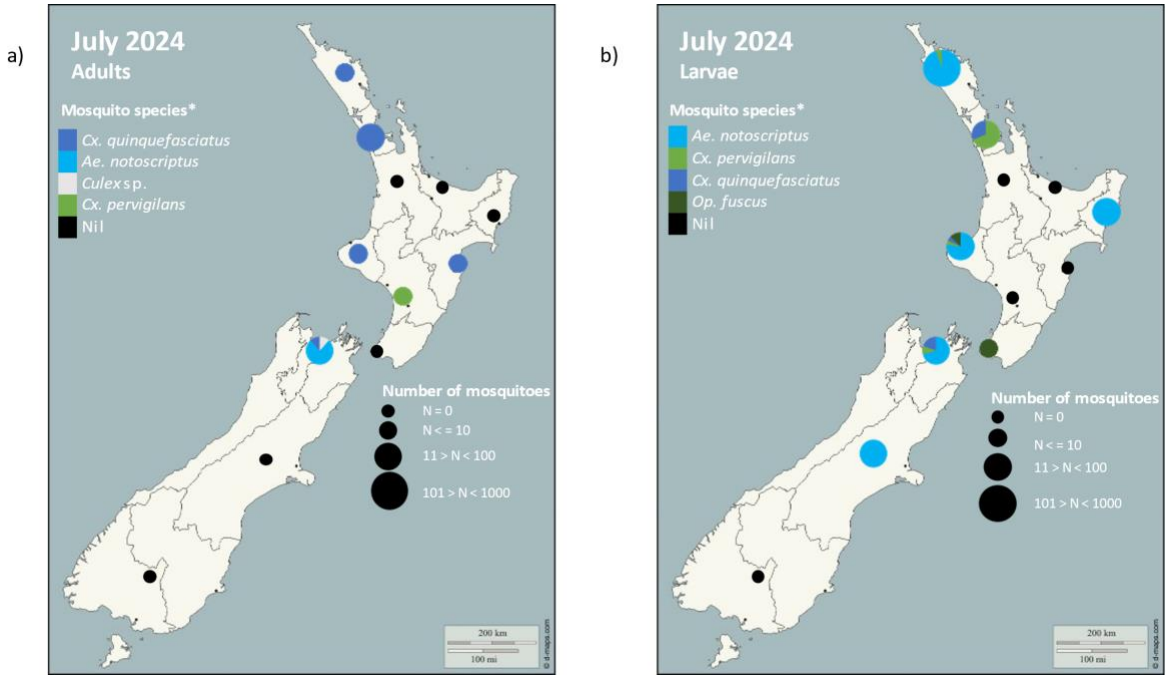


Figure 1. Total mosquito adults (a) and larvae (b) sampled in New Zealand during July 2024 surveillance period. Please note that the markers represent the PHUs and not the specific sites where the samples have been taken.
* The mosquito species are listed in order from the most abundant to the least abundant.

Aedes notoscriptus larval numbers have shown an increase in two PHUs and a decrease in four PHUs from this same month last year (Figure 2).

As expected, *Aedes notoscriptus* has not been recorded this month, this year, or last year in Southland (Figures 1 and 2).

Culex quinquefasciatus larval numbers have shown an increase in three PHUs and a decrease in four PHUs from this same month last year (Figure 2).

As expected, *Culex quinquefasciatus* larvae have not been recorded this year in Southland (Figures 1 and 2).

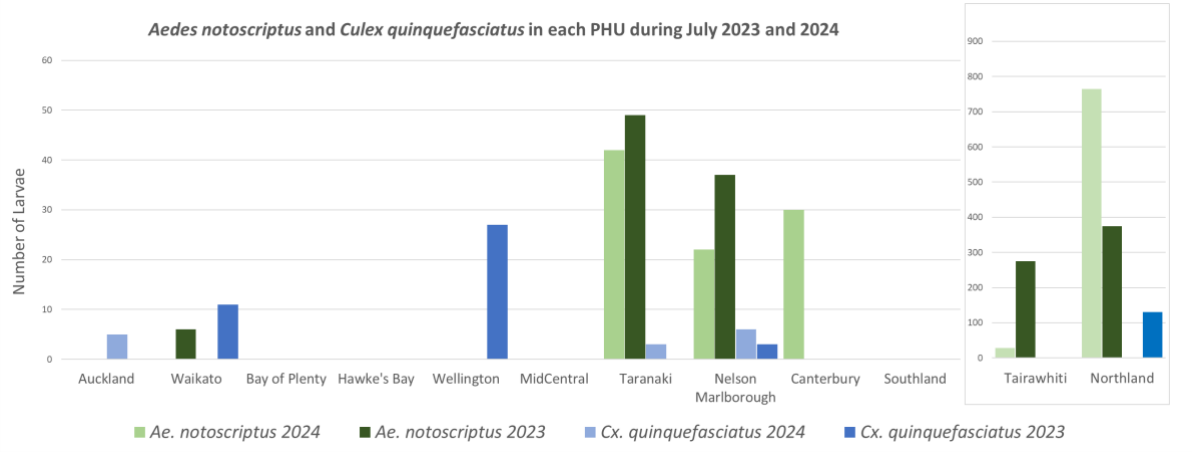


Figure 2. Comparison between introduced mosquito species sampled in each PHS during July 2023 and 2024.
*Please note the different scale for the number of larvae present in Northland and Tairawhiti in comparison to the other PHSs.

INCURSIONS AND INTERCEPTIONS

During July, HPOs responded to one suspected interception (Table 2).
Northern Region – Auckland have also continued to respond to mosquitoes collected in air cans at Auckland International Airport, with a total of 9 samples collected, resulting in 4 *Culex pipiens molestus/pallens*, 2 *Culex quinquefasciatus* and 1 *Culex vishnui* and 2 non mosquitoes.
Nelson Marlborough HPOs also continue their response following the *Culex pipiens molestus* found in a routine sample at Nelson Port in May. Further specimens were found in the water tanks that were identified during enhanced surveillance checks at the port.

Table 2. Suspected interception during July 2024

Date	Species	Location	Circumstances
23.07.2024	1 Female Culex quinquefasciatus	GT International Logistics, Auckland.	Mosquito found on the outside of a vehicle that had come into New Zealand as air cargo from India.

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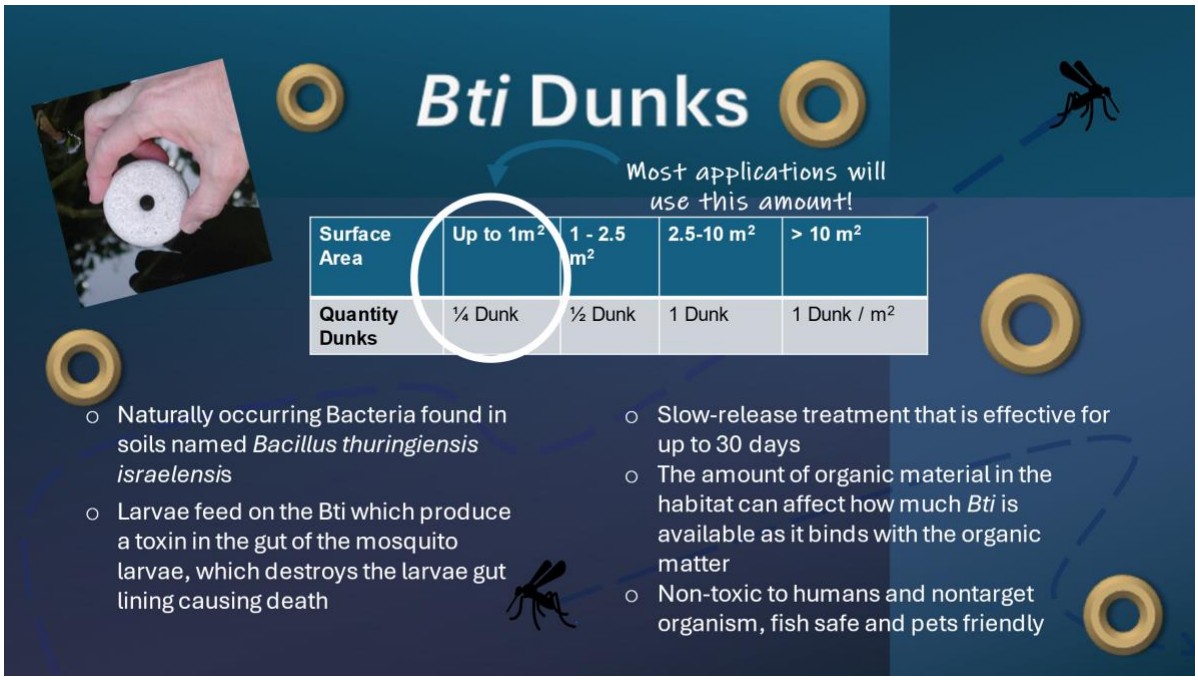
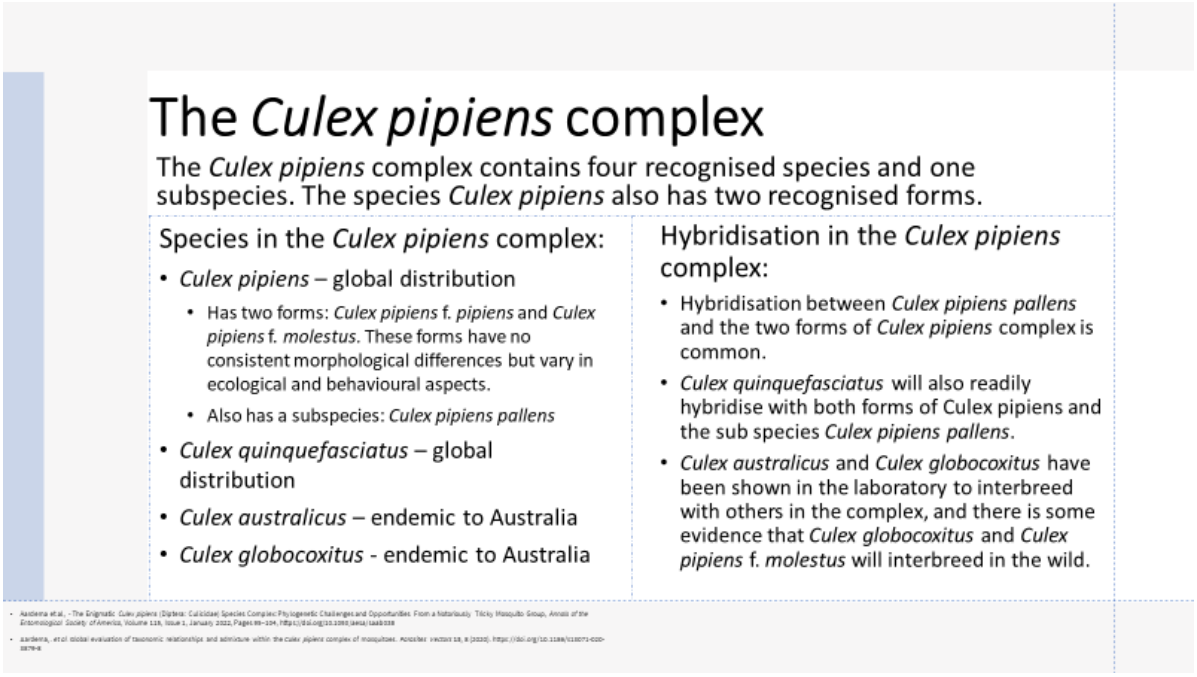
KNOW YOUR MOSQUITO CONTROL PRODUCT



KNOW YOUR MOSQUITO (COMPLEX)



RISK MAPS

Dengue Map – Centres for Disease Control and Prevention
Zika Map – Centres for Disease Control and Prevention
Malaria – Centres for Disease Control and Prevention
Malaria – World Health Organisation

DISEASE OUTBREAKS

To find out where the latest disease outbreaks have occurred visit:

Epidemic and emerging disease alerts in the Pacific region - Produced by the Pacific Community (SPC) for the Pacific Public Health Surveillance Network (PPHSN).

Disease Outbreak News - World Health Organization.

Public Health Surveillance - Institute of Environmental Science and Research (ESR) - Information for New Zealand Public Health Action.

Communicable disease threats report - European Centre for Disease Prevention and Control