

High-risk insects caught at the border

This report presents data from 2001 to 2024 on exotic mosquitoes and other insects caught at the New Zealand border (international airports and seaports), provided to EHINZ by NZBiosecure.

Key facts

- There were 15 interceptions of international origin in 2024, compared to 11 in 2023.
- Interceptions potentially originating from China, Australia, Singapore and India accounted for over half of all interceptions from 2020–24.
- Most interceptions from 2020–24 were in Auckland and Christchurch.
- Between 2020–24, intercepted high-risk insects were mainly found in household goods and vehicle and machinery parts.

Exotic mosquitoes and other insect arrivals from overseas pose a threat to New Zealand's health

Exotic mosquitoes are considered high-risk insects in New Zealand due to their ability to spread serious infectious diseases such as Dengue Fever and Malaria. Insects can travel internationally through multiple pathways, including aircraft holds and laying larvae in stagnant water on ships.

Common practices used internationally for preventing the spread of insects include aircraft being sprayed with insecticide, and freight cargo being sealed until entering inspection zones. National mosquito surveillance takes place at New Zealand's international airports and seaports. This prevents exotic mosquitoes and other high-risk insects from establishing in New Zealand and tells us which species are arriving, where they are from, and how they travel.

In 2024, 99% of international travellers arrived in New Zealand by air, while 99% of all imported goods by mass arrived by sea. COVID-19 restrictions caused a massive decrease in incoming travellers in 2020 and 2021, but the volume of incoming cargo remained relatively steady (Statistics NZ 2026a, 2026b).

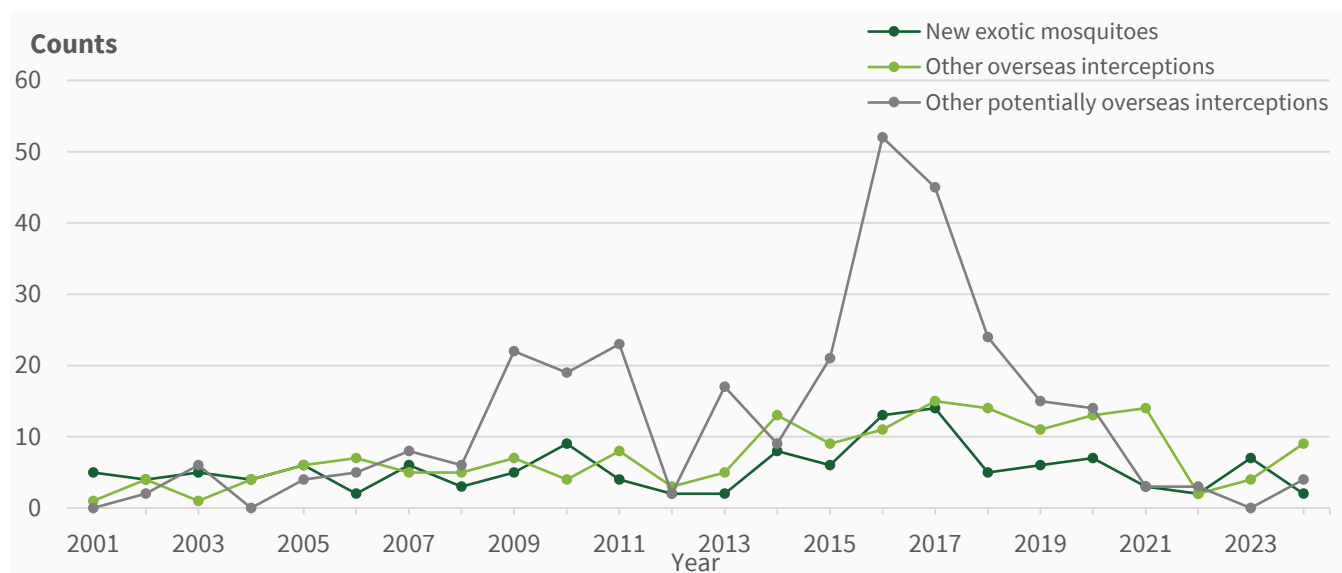
Interceptions of international insects increased slightly in 2024

In 2024, there were 15 interceptions, which included two new exotic mosquito species and 13 other insects likely from overseas or potentially of overseas origins. In comparison, there were 11 in 2023.

Between 2014 and 2021, interceptions increased substantially, especially in 2016 and 2017. There was an average of 20 interceptions of definite overseas origin (green lines in Figure 1) and 23 interceptions of potential overseas origin annually (grey line in Figure 1). Prior to 2014, the average yearly interceptions were much lower, with 9 confirmed overseas and 9 potentially overseas. The 2024 interception figures align with

the historical baseline before 2014.

Figure 1: High-risk insect interception counts at the New Zealand border, 2001–2024



Note 1: One interception may include several insects which fall into different categories. Therefore, the sum of all categories may be higher than the total number of interceptions for that year.

Note 2: 'Other overseas interceptions' is a combination of exotic mosquitoes already in New Zealand, New Zealand native mosquitoes which also exist overseas and non-mosquitoes which have an overseas origin.

Note 3: 'Other potentially overseas interceptions' include all the categories listed in Note 2 but cannot be confirmed to be from overseas. It is possible that some of these were local insects that were trapped during routine surveillance.

Note 4: Two notifications in 2022 and one notification in 2021 were excluded due to being eDNA samples from water samples in areas unrelated to major ports.

Source: NZBioSecure 2026

When an interception is made, the species and likely origin are recorded. Any interception where the origin is unknown is considered potentially international. Species are classified as:

- Non-mosquitoes: Any insect that is not a mosquito, such as crane flies.
- Exotic mosquitoes already in New Zealand: An international mosquito species that is established in New Zealand, such as *C. quinquefasciatus* or *A. notoscriptus*.
- Unidentifiable exotic: The specimen has been lost or damaged beyond recognition.
- New exotic species¹: Mosquito species that are not established in New Zealand.

While new exotic species pose a direct threat to New Zealanders' health, the categories described as "Other" in Table 1 can help identify routes that high-risk insects could use to cross our borders.

China is the most common origin of potentially foreign interceptions

From 2020 to 2024, there were 87 interceptions of potentially international origin. China was the most common origin listed, with 18 interceptions, followed by Australia (15 interceptions), Singapore (10 interceptions) and India (7 interceptions). Table 1 presents all the potential international origins recorded for these interceptions. Australia has been a consistently common potential origin of interceptions since 2001.

¹ New exotic species are the only category where the species definitively originated outside New Zealand. With all other interceptions, there is a chance the specimen originated in New Zealand and was trapped unintentionally.

China and India have also started to feature more regularly in the last five years.

Table 1: High-risk insect interceptions of potential international origin, by continent and country, 2020–24

Continent	Country	New exotic mosquito interceptions	Other overseas interceptions	Other potentially overseas interceptions	Total high-risk interceptions
Africa	South Africa	1			1
Asia	China	3	9	6	18
	Singapore	4	5	1	10
	India	3	3	1	7
	Malaysia	2	2	1	5
	Japan		1	2	3
	Indonesia		1		1
	Pakistan		1		1
	Bangladesh			1	1
	Thailand		1		1
	United Arab Emirates		1		1
Europe	Italy	2	1		3
	United Kingdom	1			1
North America	United States	1		1	2
South America	Colombia	1		1	2
	Ecuador		2		2
Oceania	Australia	1	10	4	15
	Fiji		1		1
	Samoa		1		1
	Solomon Islands	1			1
	Tonga		1		1

Note 1: An interception can have several insects which fall into different categories. An interception may also be listed as having more than one potential origin. This means the sum of interceptions across categories or countries may be greater than the total interceptions.

Note 2: Potential foreign origin notifications without a listed country are not included (14 notifications for 2020–24).

Note 3: 'Other overseas interceptions' is a combination of exotic mosquitoes already in New Zealand, New Zealand native mosquitoes which also exist overseas and non-mosquitoes which have an overseas origin.

Note 4: Other potentially overseas interceptions' includes all the categories listed in Note 3 but cannot be confirmed to be from overseas. It is possible that some of these were local insects that were trapped during routine surveillance.

Source: NZBioSecure 2026

The rest of this report relates to interceptions which have a high likelihood of being of overseas origin. This includes *New Exotic Mosquitoes* and *Other Overseas Interceptions*. *Other Potentially Overseas Interceptions* will not be discussed due to the uncertainty of their origin.

Most interceptions happen in the Auckland region

From 2020 to 2024, almost 40% of all international interceptions occurred in areas overseen by the Auckland Regional Public Health Service (ARPHS). This is consistent with the high proportion of international travellers and cargo that arrive via Auckland Airport and Auckland Seaport. Interceptions occurring in the areas overseen by Te Mana Ora | Community and Public Health (Canterbury, South

Canterbury and West Coast) were higher than usual between 2020 and 2021 (Table 2). No cause for this difference is known. Given the small counts involved, it may simply reflect year-on-year fluctuation due to random variation.

Table 2: International high-risk insect interceptions, by Public Health Unit, 2020–2024

Health Region	Public Health Unit	Year					Total
		2020	2021	2022	2023	2024	
Northern	Auckland Regional Public Health Service	6	3	1	7	8	25
Midland	Waikato	0	1	0	1	0	2
	Toi Te Ora	2	1	2	0	0	5
	Tairāwhiti	0	1	0	0	0	1
	Taranaki	1	0	0	0	0	1
Central	MidCentral	0	1	0	1	0	2
	Regional Public Health	2	0	0	1	0	3
Te Waipounamu	Nelson-Marlborough	0	1	1	0	1	3
	Te Mana Ora Community and Public Health	8	9	0	1	1	19
	Public Health South	1	0	0	0	1	2
	Total	20	17	4	11	11	63

Note: Auckland Regional Public Health Service covers Auckland. Te Mana Ora| Community and Public Health covers Canterbury, South Canterbury and West Coast. Regional Public Health covers the greater Wellington region. Toi Te Ora covers Bay of Plenty, Rotorua and Taupō.

Source: NZBioSecure 2026

The majority of recent intercepted insects have been found dead in various types of cargo

Of the 63 high-risk interceptions recorded from 2020–24, 41 were found in various types of cargo, including 10 which involved living specimens (Table 3). Live specimens are a greater concern, as it suggests the insect survived procedures intended to prevent an incursion.

Table 3: High-risk insect interceptions of international origin, by location and living status, 2020–24

Location found	Alive	Dead	Unrecorded	Total
Cargo	10	30	1	41
Fruit	2	9	0	11
Non-fruit organic produce	1	5	0	6
Surveillance traps	3	0	0	3
Baggage or luggage	1	0	0	1
Tyres	1	0	0	1
Total	18	44	1	63

Source: NZBioSecure 2026

Table 4 shows the different types of cargo in which the insects were found. The most common types were household items, followed by vehicles, machinery and its parts (16 and 14 interceptions, respectively).

Table 4: Types of cargo containing high-risk insects of international origin, 2020–24

Type of cargo	Interceptions
Household items	16
Vehicles, machinery and its parts	14
Building equipment/materials	3
Chemicals	2
All other cargo types:	
Barrels of insecticide	1
Cardboard/paper	1
Container	1
Inorganic risk materials	1
Pyrotechnics	1
Miscellaneous goods	1

Source: NZBioSecure 2026

Data for this indicator

This indicator is an analysis of the most recent data available from the New Zealand BioSecure Entomology Laboratory (NZBioSecure), provided to EHINZ by NZBioSecure in January 2026.

For additional information, see the [Metadata](#) sheet.

References

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