

Dengue mosquitoes on Groote Eylandt



Detection of dengue mosquitoes

Dengue mosquitoes (*Aedes aegypti*) were detected near the port area on Groote Eylandt in a special egg trap on 31 Oct 2006. Since then it has been discovered breeding in residential yards in Alyangula and may be in other areas of Groote.

The dengue mosquito in the NT

The dengue mosquito was not present in the NT for nearly 50 years prior to 2004. The mosquito is imported periodically into Darwin on overseas vessels such as foreign fishing vessels and cargo ships, but has been detected and eliminated each time. It was imported into Tennant Creek from Queensland in 2004 but was eradicated in March 2006 after a 2-year program.

Dengue mosquitoes

Dengue mosquitoes breed mainly around the home in containers that can hold water. This includes pot plant drip trays, buckets, containers of water for pets, old tyres, dinghies, blocked roof gutters, drums, plant striking jars, disused fish ponds or jars, flower vases with water, or rain water tanks. They lay their eggs just above the waterline in containers or water receptacles. They do not breed in swamps or other ground pools or earth drains.

The eggs are drought resistant and can last over 12 months in dry containers that have previously held water.

The transport of pot plant saucers, old tyres, plastic drums, wading pools, wheelbarrows, mower grass catchers, dinghies, boats, tarps or plastic sheets that have held water, machinery or equipment, old car bodies, with and indeed any

formerly rain filled container from Groote could introduce the mosquito to other areas within the NT.

Adult mosquitoes are most active during daylight hours, particularly in evening and in dark humid areas. They rest indoors in closets, behind curtains and other dark places. Outdoors they rest close to houses where it is cool and shaded. The mosquito rarely flies more than 200 metres from its breeding site.

What is dengue disease?

Dengue fever is a viral illness caused by infection with one of 4 types of the dengue virus spread by the bite of an infected mosquito (*Aedes aegypti*). It causes high fever lasting 3-7 days, severe frontal headache, pain behind the eyes and muscle and joint pains. Recovery may be slow and associated with weakness and depression. A more severe form called Dengue haemorrhagic fever begins with the same symptoms as dengue fever but is followed by rapid deterioration, internal bleeding and cardiovascular collapse, progressing to coma and can be fatal.

There is no spread of virus direct from human to human, as spread is only from the bite of an infected mosquito.

Where is dengue found?

Dengue fever occurs in tropical and sub-tropical areas of the world, including north Queensland, Indonesia, Timor Leste, Vietnam and other areas in the West Pacific and South East Asia.

Can I catch dengue disease on Groote?

Currently there is little likelihood of dengue disease in Groote because there are no

infected overseas travellers with dengue in Groote.

How can the dengue mosquito be eradicated on Groote?

The NT Department of health & Community Services (DHCS), in cooperation with GEMCO and funding assistance from Commonwealth Department of Health and Ageing will be conducting a yard by yard inspection and bifenthrin spray program over the next few months. Every potential breeding receptacle will be sprayed with bifenthrin insecticide (Brigade T&O), or a chlorine detergent mixture. It will be necessary to reinspect and respray each yard repeatedly as adult mosquitoes continue to lay eggs in newly available receptacles and in sprayed receptacles as the insecticide wears off. It is possible that the inspection and control program could take up to 2 years to confirm the mosquito has been eliminated. Bifenthrin is a pyrethrin-like insecticide and has a low toxicity to humans and animals but is toxic to fish. The bifenthrin spray will kill adult mosquitoes as they come to lay eggs in receptacles, as well as killing any larvae that hatch out of eggs or are present in the water.

What can you do?

Avoid importing or spreading dengue mosquitoes

- Before transporting receptacles from Alyangula or Groote, wipe out completely and scrub inner surfaces of any receptacle that has previously held water used for drinking or pets with a strong chlorine and detergent mixture solution. Spray machinery, tyres dinghies and other non-drinking receptacles with bifenthrin or deltamethrin (Cislin) before transporting

them from Alyangula or to another Groote locality, island or mainland.

- Prevent landings of any drums or other receptacles, from boats from overseas or from Groote Eylandt.

Eliminate potential breeding sites on Groote

- Remove or empty any container that holds water eg tyres, boats, plastic containers, and shells. Store containers upside down and undercover or under a domed tarpaulin in good repair.
- Avoid using saucers under pot plants. Let pots drain directly onto the ground or make sure saucers are emptied at least once a week and wipe their inner surface firmly with a strong chlorine and detergent soaked cloth several times, or fill with sand.
- Empty birdbaths, vases, and pet drinking water at least weekly and wipe as above.
- Cover and completely seal septic tanks, rainwater tanks or other large water storage containers.
- Dispose of rubbish around the yard that may collect water eg fallen palm fronds, tins, plastic bags or sheeting.
- Ensure roof gutters drain freely so that pools of water are not left at any low points.

Report any mosquito larvae sightings

If you see mosquito larvae in a container, report it to a DHCS officer on 0427270912 or 08 89228901. Someone will come and take a sample for identification, and treat the receptacle.

Report any dengue disease.

If you have returned to Groote after being overseas recently to a dengue infested country and become unwell, seek medical advice promptly. In the interim protect yourself from being bitten by mosquitoes on Groote Eylandt

For information and treatment advice contact;

Medical Entomology Branch
Darwin 8922 8901

Centre for Disease Control (CDC)
Nhulunbuy 8987 0359