

Biting Midge Pest Calendar For Coastal NT 2019



Culicoides ornatus

Medical Entomology
Centre for Disease Control
Department of Health
Northern Territory Government

<https://health.nt.gov.au/professionals/centre-for-disease-control/cdc-programs-and-units/medical-entomology>

Biting Midge Pest Periods in Coastal Northern Territory Areas

The mangrove biting midge, *Culicoides ornatus* can be an appreciable pest close to its breeding sites. In the NT, *C. ornatus* causes the greatest pest problems around extensive coastal and tidal river mangrove areas up to 2km inland from the mangrove margin.

Primary breeding sites are in the upper reaches of small tidal creeks, and are associated with mud and *Rhizophora* and *Avicennia* mangrove pneumatophores. The more of these small mangrove creeks in an area, the greater is the potential for severe pest problems. Less productive breeding sites include muddy foreshores with extensive areas of the woodland mangrove species *Sonneratia alba*. The *Sonneratia* breeding sites can cause a minor pest problem starting 2 to 3 days earlier than the main pest periods indicated in this pest calendar.

Mangrove biting midge abundance is usually highest 3 days either side of the full moon and to a lesser extent 3 days either side of the new moon. Relatively low numbers occur during the wet season, with an increase from April to July. Highest numbers occur between August and December, coinciding with the increase in high tide levels each month during this period.

Biting midges do not transmit diseases to humans in Australia but scratching of the bites may lead to secondary bacterial infection. *Culicoides ornatus* are most active in the 2 hour period before and after sunrise and sunset. However, bites can also occur at other times and during the day in or adjacent to their breeding sites.

Personal protection, such as full-length trousers, long-sleeved shirts, socks and shoes, and the use of insect repellents containing DEET or picaridin will generally be required within 2 km of biting midge breeding sites. Protection is also provided by mosquito lanterns and electric plug in devices. Barrier sprays near outdoor patio or recreation areas applied to screening shrubs and external walls and fences up to 2m high can also offer very good protection for extended periods.

This calendar shows periods when high *C. ornatus* numbers are expected in NT coastal areas in 2019.

**For more information please contact: Medical Entomology, CDC,
Department of Health, Darwin on (08) 89228901**

Disclaimer:

This Pest Calendar has been developed to provide an indication of potential *C. ornatus* pest periods, and therefore should only be used as an indicator.

Biting Midge Pest Calendar for coastal NT 2019

| JANUARY | | | | | | |
|---------|----|----|----|----|----|----|
| M | T | W | T | F | S | S |
| | 1 | 2 | 3 | 4 | 5 | 6● |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21○ | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | | | |

| FEBRUARY | | | | | | |
|----------|----|-----|----|----|----|----|
| M | T | W | T | F | S | S |
| | | | | 1 | 2 | 3 |
| 4 | 5● | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20○ | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | | | |

| MARCH | | | | | | |
|-------|----|----|-----|----|----|----|
| M | T | W | T | F | S | S |
| | | | | 1 | 2 | 3 |
| 4 | 5 | 6 | 7● | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21○ | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

| APRIL | | | | | | |
|-------|----|----|----|-----|----|----|
| M | T | W | T | F | S | S |
| 1 | 2 | 3 | 4 | 5● | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19○ | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | | | | | |

| MAY | | | | | | |
|-----|----|----|----|----|----|-----|
| M | T | W | T | F | S | S |
| | | 1 | 2 | 3 | 4 | 5● |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19○ |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | | |

| JUNE | | | | | | |
|------|----|----|----|----|----|----|
| M | T | W | T | F | S | S |
| | | | | | 1 | 2 |
| 3● | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17○ | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |

| JULY | | | | | | |
|------|----|-----|----|----|----|----|
| M | T | W | T | F | S | S |
| 1 | 2 | 3● | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17○ | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | | | | |


| AUGUST | | | | | | |
|--------|----|----|----|-----|-----|----|
| M | T | W | T | F | S | S |
| | | | | 1● | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15○ | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30● | 31 |


| SEPTEMBER | | | | | | |
|-----------|----|----|----|----|-----|-----|
| M | T | W | T | F | S | S |
| | | | | | | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14○ | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29● |
| 30 | | | | | | |

| OCTOBER | | | | | | |
|---------|-----|----|----|----|----|----|
| M | T | W | T | F | S | S |
| | | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14○ | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28● | 29 | 30 | 31 | | |

| NOVEMBER | | | | | | |
|----------|-----|-----|----|----|----|----|
| M | T | W | T | F | S | S |
| | | | | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12○ | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27● | 28 | 29 | 30 | |

| DECEMBER | | | | | | |
|----------|----|----|-----|----|----|----|
| M | T | W | T | F | S | S |
| | | | | | | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12○ | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26● | 27 | 28 | 29 |
| 30 | 31 | | | | | |

 Very high peaks of *C. ornatus*

 Moderate peaks of *C. ornatus*

 High peaks of *C. ornatus*

 Low to moderate peaks of *C. ornatus*

○ Full moon ● New moon