



NEW ZEALAND BIOSECURE

Entomology Laboratory



Anopheles (Cellia) annulipes s.l. Walker

NZ Status: Not Present – Unwanted Organism



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Vector and pest status

Anopheles annulipes s.l. is a vector of malaria, Bancroftian filariasis and myxomatosis (Lee *et al.*, 1988).

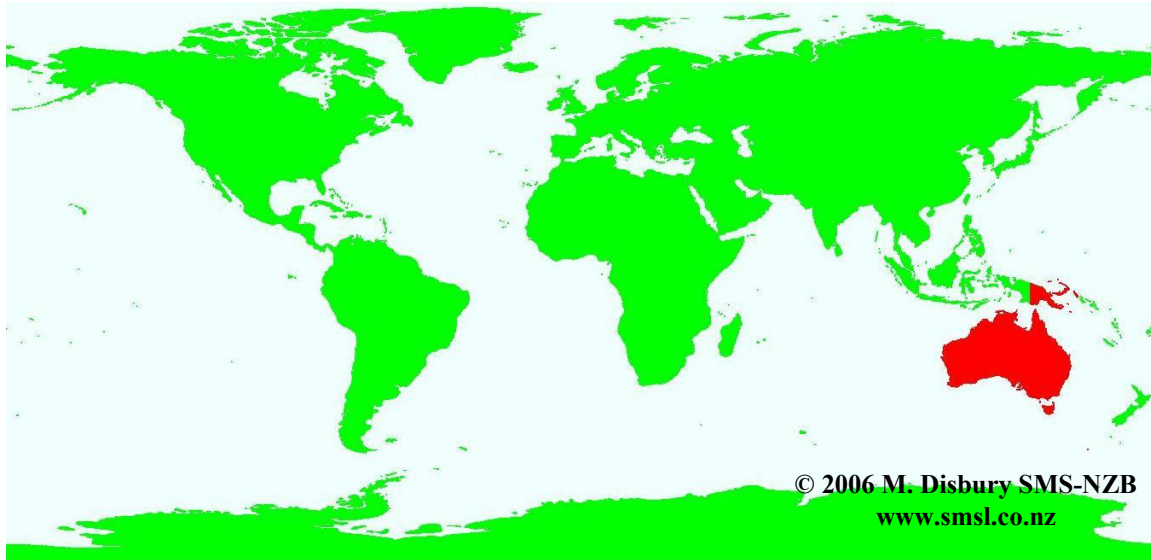
Barmah Forest virus has been isolated from this species in western Australia (Lindsay *et al.*, 1995) and Ross River virus has been isolated in New South Wales (Clancy & Russell, 1997).

Geographic Distribution

Anopheles annulipes occurs throughout Australia (Foley and Bryan, 1991) and Papua New Guinea (Cooper *et al.*, 2006).

Incursions and Interceptions

This species has not been intercepted in New Zealand.



This map denotes only the country or general areas where this species has been recorded, not actual distribution.

Taxonomy

Anopheles annulipes is a species complex. The *An. annulipes* complex is thought to include at least three species in southeastern Australia (<http://medent.usyd.edu.au>). Foley and Bryan (1991) have identified two species which have been provisionally designated species A and species G. Until morphological revisions are complete it is not possible to reliably differentiate most of these species on appearance and they are generally referred to as *An. annulipes sensu lato* (*s.l.*), meaning *An. annulipes* in the broad sense.

Habits and Habitats

Anopheles annulipes is found in a range of breeding habitats including temporary and permanent ground and rock pools, with fresh or brackish water (Lee *et al.*, 1988). Larvae can be found throughout the year but have a tendency to overwinter in the larval stage in cooler areas (Lee *et al.*, 1988).

In a study in South Australia, *Anopheles annulipes* was observed to exhibit both crepuscular and nocturnal host-seeking activity using carbon dioxide baited light traps, displaying a significantly smaller peak at sunset, followed by higher amount of activity throughout the night (Williams, 2005).

Adult females will feed on humans as well as other animals (particularly cattle) (Russell, 1993). Distributions of this species in Australia correlate strongly to those of introduced animals such as sheep and rabbits, but most strongly with cattle (Lee *et al.*, 1988). This species will travel long distances from breeding sites to feed (5-6km) (Lee *et al.*, 1988).

References

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