



NEW ZEALAND BIOSECURE
Entomology Laboratory



Opifex chathamicus (Dumbleton, 1962)

Chatham Islands mosquito

NZ status: Endemic

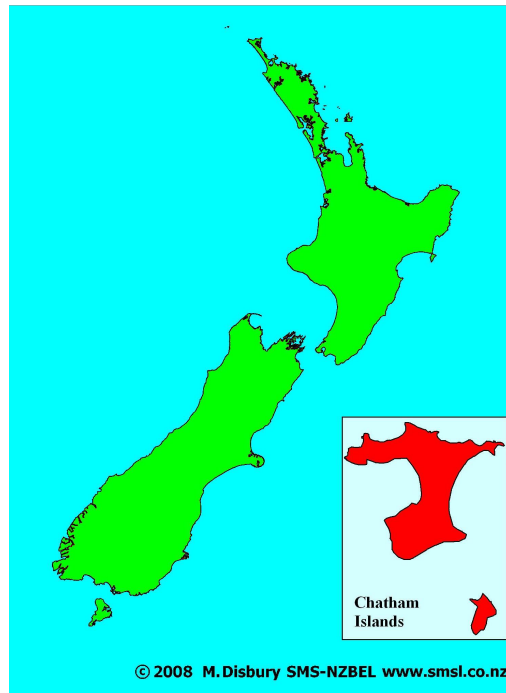


Vector and Pest Status

The vector and pest status of *Aedes chathamicus* is not currently known. Little is known about its hosts (Belkin, 1968), although it has been reported to bite humans (Snell & Sirvid, 2005).

Geographic Distribution

Aedes chathamicus is an endemic species found exclusively on the Chatham Islands (Dumbleton, 1962; Belkin, 1968).



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

Incursions and Interceptions

Aedes chathamicus has not been intercepted at New Zealand's borders.

Taxonomy

Aedes chathamicus was first discovered and described by Dumbleton in 1962 (Dumbleton, 1968) and is the only representative of the endemic subgenus *Nothoskusea* (Snell & Sirvid, 2005).

Changes proposed by Reinert *et al.* in 2000 elevating the subgenus *Ochlerotatus* to generic level, also saw *Ae. chathamicus* moved to become *Ochlerotatus (Nothoskusea) chathamicus*.

Further revision revealed it shared some morphological similarities with another endemic species, *Opifex fuscus* (also noted by Dumbleton, 1962) and it was moved again to the genus *Opifex* by Reinert *et al.* (2004) to become *Opifex (Nothoskusea) chathamicus* (Reinert & Harbach, 2005).

Controversy over the Reinert works (Reinert, 2000; Reinert *et al.*, 2004; Reinert & Harbach, 2005) has resulted in the majority of mosquito workers reverting back to *Aedes* pending further research.

The large adult females may be separated from other New Zealand species by the presence of distinctive pale basal lateral patches on the sternites (Belkin, 1968), some also with a pale apical median patch (Snell, 2005). The palps are very short, around 1/6 the length of the proboscis and both the palps and proboscis are entirely dark scaled (Belkin, 1968; Snell, 2005).

Larvae may be identified by their large triangular patch of 100 minute broadly fringed comb scales and very small rounded anal gills with the dorsal pair being distinctly larger than the ventral (Belkin, 1968; Snell, 2005).

Habits and Habitat

Aedes chathamicus larvae are only known from saline or brackish rock pools, at or just above the high tide mark on the Chatham Islands (Dumbleton, 1962; 1968; Snell, 2005).

Little is known about the habits of *Aedes chathamicus* (Derraik et al., 2005). They are known to bite humans and have been caught biting indoors and out (Derraik et al., 2005; Snell, 2005). Anecdotal evidence suggests they may be night time biters (Derraik et al., 2005; Snell, 2005).

Dispersal remains unknown but adult females have been found five kilometres from the coastline suggesting either a long flight range or a broader range of larval habitats than is currently known (Snell, 2005).

References

- Belkin, J.N. 1968. Mosquito studies (Diptera, Culicidae). VII. The Culicidae of New Zealand. Contributions of the American Entomological Institute 3(1):1-182
- Derraik, J.G.B., Snell, A., and Sirvid, P. 2005. Bite me, would you? Coastal Mosquitoes of New Zealand. Seafood New Zealand. May 2005: 82-83.
- Dumbleton, L.J. 1962. A new species and new sub-genus of *Aedes* (Diptera: Culicidae) from New Zealand. New Zealand Journal of Science 5(1):17-27.
- Dumbleton, L.J. 1968. A synopsis of the New Zealand mosquitoes (Diptera, Culicidae) and a key to their larvae. Tuatara 16(3):167-179.
- Reinert, J.F. 2000. New classification for the composite genus *Aedes* (Diptera: Culicidae: Aedini), elevation of subgenus *Ochlerotatus* to generic rank, reclassification of the other subgenera, and notes on certain subgenera and species. Journal of the American Mosquito Control Association 16(3):175-188
- Reinert, J.F., Harbach, R.E. and Kitching, I.J. 2004. Phylogeny and classification of Aedini (Diptera: Culicidae), based on morphological characters of all life stages. Zoological Journal of the Linnean Society 142:289-368
- Reinert, J.F. and Harbach, R.E. 2005. Generic and subgeneric status of aedine mosquito species (Diptera: Culicidae: Aedini) occurring in the Australasian region. Zootaxa 887:1-10
- Snell, A.E. and Sirvid, P.J. 2005. Mosquitoes of the Chatham Islands: notes on *Opifex chathamicus* (= *Ochlerotatus chathamicus*) (Dumbleton) (Diptera: Culicidae). The Weta. 29: p. 6-8
- Snell, A. 2005. Identification keys to larval and adult female mosquitoes (Diptera: Culicidae) of New Zealand. New Zealand Journal of Zoology 32:99-110