



NEW ZEALAND BIOSECURE
Entomology Laboratory



Culex (Cux.) asteliae (Belkin)

No common name

NZ Status: Endemic

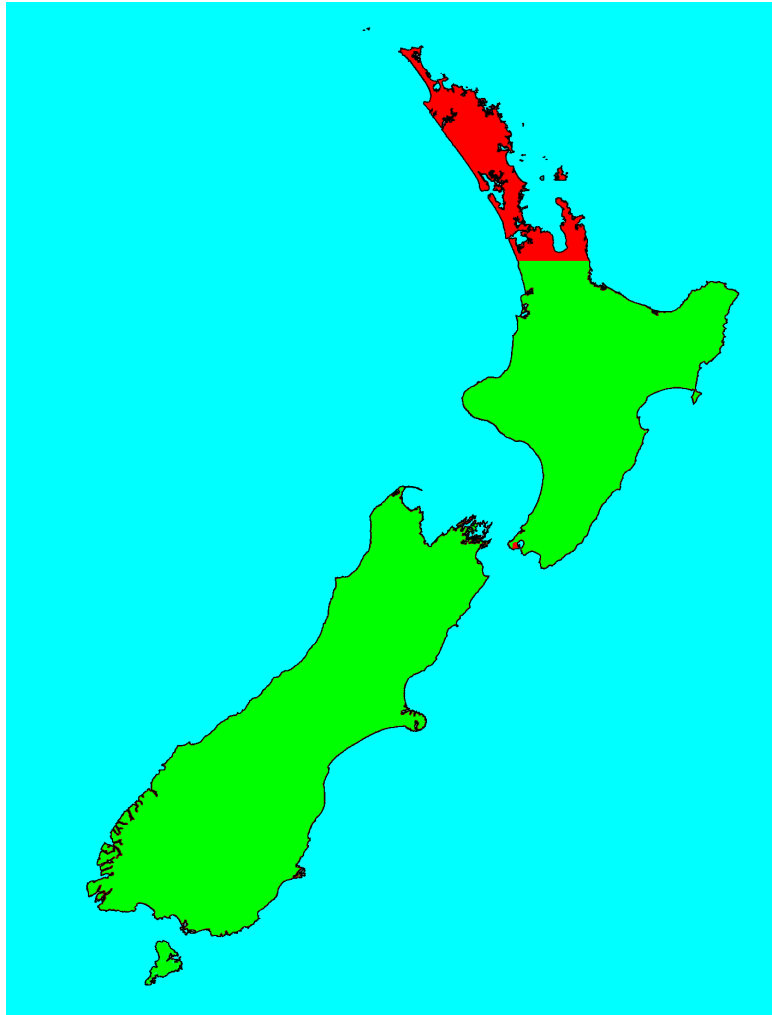


Vector and Pest Status

The host and vector status of *Culex asteliae* are not currently known (Holder, 1999). It has not been reported biting man or livestock but there is evidence to suggest it may blood feed on birds (Derraik, 2005). This species has not been noted in pest numbers and appears not to have any significant pest status (Holder, 1999).

Geographic Distribution

Culex asteliae is an endemic species (Sandlant, 2002) first collected in 1963 and 1964 and described in 1968 by Belkin (Belkin, 1968). It can be found associated with astelias in forested areas of Northland, Coromandel, Auckland and the Hauraki Gulf Islands (Belkin, 1968; Dumbleton, 1968; Laird, 1995). It was also collected on a single occasion from a bromeliad in Days Bay, Wellington (Derraik, unpub. Data).



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

Incursions and Interceptions

Culex asteliae has not been intercepted at New Zealand's borders.

Taxonomy

Culex asteliae belongs to the subgenus *Culex* and is thought to be part of the *Culex pervigilans* complex along with *Culex rotoruae* (Belkin, 1968).

Adults and larvae are both very similar to *Cx. pervigilans* although larvae are more easily differentiated. *Cx. asteliae* adults are noticeably smaller than other members of the complex (Belkin, 1968).

Habits and Habitat

Culex asteliae larvae are found almost exclusively in the water held in the leaf axils of broad-leaf astelias (Laird, 1990) and more rarely found in artificial containers at edges of native bush (Derraik *et al.*, 2005). Their range appears limited to their principal host plant *Collospermum hastatum* within the north of the North Island. Larvae may be found in both terrestrial and epiphytic plants of *Collospermum spp.* (Dumbleton, 1968; Laird, 1995), but adults prove much harder to locate. Occasionally larvae of *Aedes notoscriptus* have also been found in the same leaf axils as *Cx. asteliae* (Derraik, 2005).

Adult females will fly within quite a large vertical distribution as evidenced by larvae found in plants at both ground level and 18 metres up into the canopy (Derraik, 2005). Dispersal habits are unknown (Mackereth *et al.*, 2007).

Most adult activity occurs within the canopy and females trapped with carbon dioxide baited light traps at a height of 10 metres suggest they will forage high into the trees for a host and most likely feed on birds (Derraik, 2005; Derraik *et al.*, 2005; Holder, 1999).

References

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