



Culex (Culex) salinarius Coquillett

saltmarsh *Culex*

NZ Status: Not Present – NSP Watchlist



Vector and Pest Status

Culex salinarius is a vector of West Nile virus (WNV), Eastern Equine Encephalitis (EEE) and St. Louis encephalitis (SLE) (MMCA, 2002).

Geographic Distribution

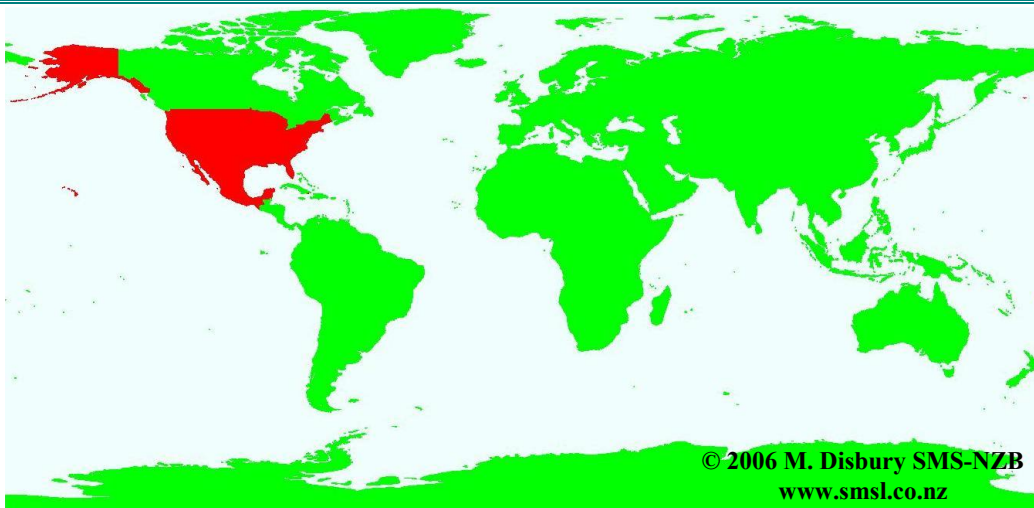
This species is present in Bermuda, Mexico (www.wrbu.org) and throughout most of the eastern and mid United States (Slaff, 1990; Darsie and Ward, 2005).

Incursions and Interceptions

This species has not been intercepted in New Zealand.

Taxonomy

This species can be confused with members of the *Culex pipiens* complex without proper identification.



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

Habits and Habitat

This species breeds in permanent water either fresh or polluted. They are found in grassy pools, ditches, ponds, occasionally in rain barrels, bilge water in boats, cattle tracks and sometimes in stump holes swampy edges of lakes, oxbow pools, marshes of various types, ponds and cattail bogs and stump holes (Ross, 1947, Carpenter and LaCasse, 1955). They also breed in artificial containers which provide secondary larval habitat (Crans, www.rci.rutgers.edu). Larvae rarely found in open saltmarsh, however this species does have salt tolerance (Crans, www.rci.rutgers.edu). The eggs are non-desiccation resistant, laid in egg rafts directly on the water surface (MMCA, 2002). A moderate level of autogeny has been noted with laboratory reared *Cx. salinarius*, but the extent of this occurrence in nature is unclear (Slaff, 1990).

Culex salinarius has multiple generations each year (MMCA, 2002). Larvae and adults can be found any time during the year in the more southern parts of their range (Carpenter and LaCasse. Mated adult females overwinter in the northern parts of their range (Carpenter and LaCasse, 1955; MMCA, 2002). Adult females do not cease host seeking behaviour in autumn as most *Culex* species do, but appear to blood feed and exit hibernation in a parous state. This behaviour may enable *Cx. salinarius* to harbour SLE and other viruses during the winter (Slaff, 1990).

Adult females bite readily outdoors and occasionally enter indoors to feed on humans (Carpenter and LaCasse, 1955). The majority of host seeking activity occurs within the first two or three hours after sunset (Slaff, 1990). This species feeds on both birds and mammals (Slaff, 1990). Their flight range is 1/4 to 5 miles.

References

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- MMCA. 2002. *Michigan Mosquito Manual*. Michigan Mosquito Control Association in conjunction with the Michigan Department of Agriculture. 108pp.
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Slaff, M. 1990. The biology of *Culex salinarius*. *Proceedings of the New Jersey Mosquito Control Association* pp. 71-72.