

Review Article

The tick *Ixodes uriae* (Acari: Ixodidae): Hosts, geographical distribution, and vector roles



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ABSTRACT

The seabird tick *Ixodes uriae* White 1852, has the most extensive geographical distribution of all tick species, including Afrotropical, Australasian, Nearctic, Neotropical and Palearctic Zoogeographic Regions. Additionally, this tick species parasitizes a wide range of seabirds and constitutes a host for several viral and bacterial agents. Considering the current biological knowledge about this tick species, in this article we list localities, hosts, tick-borne microorganisms and viruses transmitted by *I. uriae* described in the literature and include new geographical records.

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Introduction

The seabird tick *Ixodes uriae* White 1852 is the sole member of the Ixodidae family with a circumpolar distribution in both Antarctic and Arctic latitudes (Murray and Vestjens, 1967; Dietrich et al., 2011). The taxonomic status of this tick has been controversial and

several synonymies have been described (Eveleigh and Threlfall, 1974; Keirans, 1992). Pickard-Cambridge (1876) described it as *Hyalomma puta*. Later, Neumann (1899) reassigned this tick to the *Ixodes* genus, renaming the species as *I. putus* and creating the *Ceratixodes* subgenus. This subgenus was later raised to genus (Neumann, 1902; Lahille, 1905). The latest revision of tick nomenclature that considered the genus *Ceratixodes* valid was done by Camicas et al. (1998). Nowadays most tick specialists classify this tick as *Ixodes uriae* (Frenot et al., 2001; Guglielmone et al., 2014).

Besides its circumpolar distribution in both hemispheres, this hard tick species occurs in the Afrotropical, Australasian, Nearctic,

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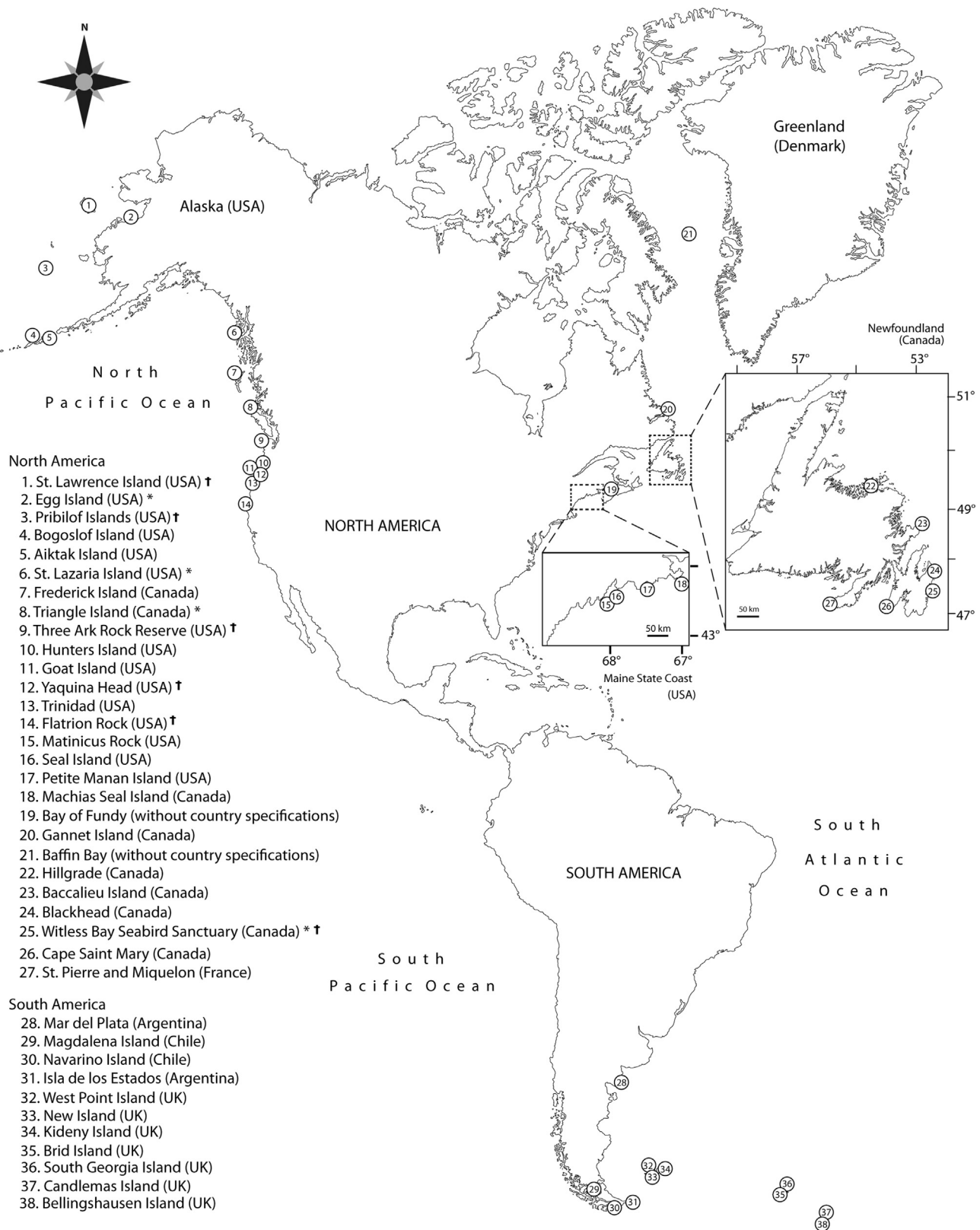


Fig. 1. Geographical distribution of *I. uriae* in America (* localities where bacteria have been detected; † locations where viruses have been detected).

Neotropical and Palearctic Zoogeographic Regions, including several island locations in the North Atlantic and South Pacific oceans (Guglielmone et al., 2014). Within its distribution, *I. uriae* is the tick that parasitizes the widest range of seabird species in the world

(Dietrich et al., 2011) and it lives in association with its hosts' nests (Barton et al., 1996).

I. uriae exploits seabirds in almost all major bird breeding areas and can survive in extremely adverse climatic conditions (Lee and

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