

# Western Blacklegged Ticks in Alaska: Modeling of Future Potential

In this article, researchers aimed to identify areas of potential suitable habitat for *Ixodes pacificus* (western blacklegged tick) within Alaska. Although not considered endemic, *I. pacificus* has been collected recently from domestic animals in Alaska. Questions remain regarding the ability for survival and reproduction in Alaska if this species is introduced to the high-latitude climate of Alaska.



Investigators used habitat modeling to calculate climatic and land vegetation cover variables in Alaska for both present conditions (1980–2014) and predicted future conditions (2070–2100). Suitability maps produced through this modelling show that both climate and land cover in Southeast Alaska and portions of Southcentral Alaska could support the establishment of *I. pacificus* populations, and that future forecasts show increased suitable habitat with much uncertainty for many areas of the state. Researchers suspect that repeated incidental introductions of this tick to Alaska increases the likelihood that this tick may become an established residential population in the future.

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