

 Maine Medical Center
RESEARCH INSTITUTE
Vector-Borne Disease Laboratory

Mount Desert Island, ME – Hancock County

October 2014

Brief surveys were conducted for the adult stage of the deer tick, *Ixodes scapularis*, the vector of Lyme disease, during the spring and fall sampling season in 2014. Several sites were examined by both the staff of Acadia National Park (B. Connery and C. Heilakka) and the Maine Medical Center Research Institute (C. Lubelczyk).

Briefly, beginning with the spring collection, performed by Connery and Lubelczyk, with the assistance of student from College of the Atlantic in Bar Harbor. Three sites were surveyed, Compass Harbor, the Rockefeller Farm, and an area adjacent to Sand Beach. Two hours of survey work resulted in 20 ticks, of which ~50% were infected with the Lyme spirochete, *Borrelia burgdorferi* (determined by direct fluorescent antibody [DFA]).

Fall sampling occurred over a larger period, with mixed results in collections, due to an excessively dry season in early October.

October 20. Acadia NP staff surveyed Compass Harbor, collecting 5 *I. scapularis* females.

October 21. Sampling at Sand Beach produced 3 *I. scapularis* (3 females and one male).

October 27. Acadia NP staff surveyed Thompson Island, collecting 7 *I. scapularis* (3 females and 4 males). Sampling in Bar Harbor produced 4 males. MMCRI staff also surveyed at Indian Point Road in Town Hill, producing 16 *I. scapularis* (9 females and 7 males).

Based on available effort reports, tick abundance was estimated to be approximately 42 ticks/hour, consistent with many areas in that region of Maine. Overall, infection with the Lyme disease spirochete was estimated to be 61% in the fall-collected cohort of these ticks, as determined by DFA. This infection rate was seen across all sites sampled, the only exception being that a larger sample size was collected from Town Hill.

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