HEAVY TICK POPULATION ON BIRDS AT ISLAND BEACH STATE PARK BIRD-BANDING STATION By Robert Snetsinger and Dorothy Bordnerl

Clifford et. al. (1961) provided keys and illustrations that have made possible the indentification of larval ticks of the eastern United states. Until this publication, there was only limited awareness among carologists as to the diversity of hosts and the maintenance and transmission of tick-borne diseases by larval ticks. Many species of ticks in the adult stage are associated with only one or a relatively few species of mammals; however, Clifford et. al. found that some tick species in the larval stage have hosts quite different than those they have as adults.

The present authors collected ticks from 92 birds belonging to 15 species from 24 August to 21 September 1965. The collections were made at Island Beach State Park, Ocean County, New Jersey. The birds were collected in mist nets and represent a modest sampling of birds taken during the Island Beach State Park bird-banding project.

The species of birds from which the ticks were collected were the Yallow-shafted Flicker (AOU 412), Catbird (704), Brown Thrasher (705), Wood Thrush (755), Swainson's Thrush (758), Veery (756), Cape May Warbler (650), Black-throated Blue Warbler (654), Ovenbird (674), Northern Water-thrush (675), Yellow-throat (681), Yellow-breasted Chat (683), Rufous-sided Towhee (587), Slate-colored Junco (567), and Song Sparrow (581). No relationship between the species of birds and the abundance of ticks was established.

A total of 1,323 ticks were collected, an average of 14.8 ticks per bird. Of this total all but one specimen were <u>Haemaphysalis</u> <u>leporispalustris</u> (Packard, 1869). The remaining specimen was a larval <u>inodes</u> <u>dentatus</u> Marx, 1899, and it was collected from a Yellow-breasted Chat. Of the 1,322 <u>H. leporispalustris</u>, 564 were unfed larvae, 723 were engorged larvae; 13 were unfed nymphs; and 22 were engorged nymphs. One bird had an infestation of 65 ticks, which was the record number for this study.

Sonenshine et al. (1966) reported on ticks collected at bird banding stations located in Maryland at Kent Point (Chesapeake Bay) and Ocean City, and at the Patuxent Wildlife Refuge. These workers noted that <u>H. leporispalustris</u> was the most abundant species on migrants examined in early September. The present observation closely agrees with that of Sonenshine and his workers.

¹Robert Snetsinger, Associate Professor of Entomology, 101 Walker Laboratory, The Pennsylvania State University, University Park, and Dorothy Bordner, 926 West Beaver Avenue, State College, Pa., respectively. It is interesting to speculate on the locale where the birds at Island Beach State Park became infested with ticks. Gregson (1956) has reported <u>H. leporispalustris</u> from Newfoundland, Nova Scotia, Ontario, and New Brunswick. This indicates that the birds may have carried the ticks southward while migrating; however, the high percentage of unfed ticks may indicate a local source of infestation. It is apparent, on the other hand, that the habitat of the bird species overlaps that of rabbits, which are the normal host associated with adults of <u>H.</u> leporispalustris and <u>I. dentatus</u>.

References

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