

2004

Attempts to Locate Culex Tarsalis Larvae In Traditional Mosquito - Breeding Habitats from Brookings County, South Dakota

M. L. Hart

South Dakota State University

M. B. Hildreth

South Dakota State University

Follow this and additional works at: https://openprairie.sdstate.edu/oak-lake_research-pubs

Recommended Citation

Hart, M. L. and Hildreth, M. B., "Attempts to Locate Culex Tarsalis Larvae In Traditional Mosquito - Breeding Habitats from Brookings County, South Dakota" (2004). *Oak Lake Field Station Research Publications*. 60.
https://openprairie.sdstate.edu/oak-lake_research-pubs/60

This Article is brought to you for free and open access by the Oak Lake Field Station at Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. It has been accepted for inclusion in Oak Lake Field Station Research Publications by an authorized administrator of Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. For more information, please contact michael.biondo@sdstate.edu.

ATTEMPTS TO LOCATE *CULEX TARSALIS* LARVAE IN TRADITIONAL MOSQUITO- BREEDING HABITATS FROM BROOKINGS COUNTY, SOUTH DAKOTA

M.L. Hart, D.J. Thorpe and M.B. Hildreth
Departments of Biology/Microbiology & Veterinary Science
South Dakota State University
Brookings, SD 57007

ABSTRACT

A total of 33 potential mosquito breeding sites were identified and selected during the early spring of 2003. These mosquito habitats were selected from both natural and urban settings within Brookings County, Sd, and represented the various classifications of habitats potentially used by various mosquito species for larval development including: flowing streams, ponded streams, lake edges, swamps and marshes, shallow-permanent ponds, shallow-temporary pools, intermittent-ephemeral puddles, natural containers and artificial containers. These sites were monitored weekly during the summer for the condition of the water and sampled for the presence of mosquito larvae. A standard collection of 10 "dips" using a 13 cm mosquito dipper was made from each location. Collected larvae were preserved (70% ethanol), dehydrated in an ethanol series, mounted on glass slides, identified and enumerated. Focus was given to *Culex* larvae because *Culex tarsalis* is a primary vector for West Nile Virus in South Dakota. Moderate numbers of larvae were recovered from many of the sites during the summer, but by August 6 only 21 of the sites contained water, and therefore, still able to support larval development. *Culex tarsalis* larvae were not found in any natural site; the only sites they where they could be found were 6 artificial containers possessing these larvae only after August 5. *Culex tarsalis* larvae were found in 2 locations that were not part of the original study sites. These included larvae found during early summer in an artificial barrel mesocosm within Oak Lake, and larvae found in a water-filled, shallow tire-imprint located in a hay-field in Minnehaha County, South Dakota.