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MOSQUITO POPULATIONS FROM EASTERN SOUTH DAKOTA DURING 2001 AND 2002

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ABSTRACT

In 2001, the South Dakota Department of Health initiated a program to monitor mosquitoes in South Dakota for the presence of the West Nile Virus. During the first year (2001), a pilot survey was conducted near Brookings, SD. To collect mosquitoes, CDC miniature light traps were used without carbon-dioxide baiting, beginning on July 3 and ending on August 2, 2001. Results from this small study (total of 2,042 mosquitoes during 10 collection days) showed that the most common mosquitoes were *Aedes vexans* (88.2%), *Culex tarsalis*, (5.2%), and *Aedes dorsalis* (4.9%). An additional survey was conducted during the summer of 2002 focusing on 8 different sites (Brandon, Brookings, Huron, North Sioux City, Oak Lake Field Station, Watertown, Waubay and Yankton) in eastern South Dakota. Mosquitoes were collected with the same traps used for 2001, however, the traps were baited with carbon dioxide (dry ice). Trapping began on June 1 and ended on September 1, 2002. A total of 18,971 mosquitoes were collected from the 8 sites during the 127 trapping days of this survey. From this population, 21 different mosquito species from 8 different genera were identified. The vast majority of mosquitoes were *Aedes vexans* (86.3%), but *Culex tarsalis* was also present in significant numbers (7.2%). *Aedes vexans* populations varied to a greater degree during the summer than did *Culex tarsalis*. The public's perceptions of the danger of West Nile Virus transmission is probably more determined by *Aedes* population than by *Culex* populations even though *Aedes* likely plays little or no role in the transmission of this disease.