

Mosquito Numbers in 2008

Similar to 2005-6-7-8, the rainfall patterns and limited amounts of rain per rainfall event in the Lafayette area resulted in relatively few mosquitoes. Again, in contrast to 2003 and 2004, much of Tippecanoe County experienced no extensive flooded habitats that support development of larvae of *Aedes* and *Psorophora* mosquitoes. The major watersheds did not flood and rainwater that collected in catch basins and soil depressions dried up before *Aedes* and *Psorophora* eggs hatched or larval development was completed. Habitats that supported the development of *Culex* larvae in 2003 and 2004 tended to remain dry or didn't support larvae throughout most of the 2008 summer. Relatively few adult mosquitoes were collected in dry ice traps monitored by the Tippecanoe County Health Department, with only two "pools" of *Culex* mosquitoes testing positive for West Nile virus.

In early October, however, areas of Lafayette and West Lafayette, including the Purdue University campus, experienced an "outbreak" of *Aedes vexans*, the so-called "floodwater mosquito." This event was a surprise due to the above-mentioned lack of flooding rains and overflowing streams. Efforts were made to locate the larval developmental site (s), but none found that would explain such a large and widespread outbreak.

One notable mosquito collection was made in early October 2008, namely, large numbers (60-70) of mature larvae and pupae of *Aedes japonicus* removed from shallow water in a birdbath situated in a West Lafayette yard. This Asian species was discovered in New York and New Jersey in 1998 and has spread over much of eastern North America. In its native lands of Korea and Japan, *A. japonicus* is known to be a rock-hole breeder and so finding larvae and pupae in a concrete birdbath is not surprising. Relatively little is known about *A. japonicus* in North America, but this species is a vector of disease agents in Asia and is thought to be disseminated via the used tire trade, similar to *Aedes albopictus*, another Asian species.