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DISTRIBUTION OF BLACK FLIES IN EAST TEXAS

James V. Robinson

Background. In the late 1800's into the 1930's, black flies were known to occur each spring in East Texas killing livestock and making living conditions miserable for East Texans. Then, beginning in 1935-1945, black flies began to decline and were virtually non existent until the mid 1970's.

In recent surveys, five species of black flies have been collected from streams in East Texas. Three of these are of known economic importance to livestock, poultry and humans.

Research Findings. During the 1980's, limited surveys were conducted for black flies. However, in 1990 systematic surveys were begun. Black flies develop in running water; therefore, rivers, major bayous and creeks in East Texas have been or are being sampled to determine the number of black fly species breeding in these waterways.

In 1979, the southern buffalo gnat was found infesting the Sulphur River in Bowie/Cass County. Very little spread of this insect occurred until the late 1980's. In 1990, it was found on the Sabine River, in 1991 on the Neches and Angelina Rivers and in 1992 on the Navasota. This insect is considered an economical pest of cattle and horses.

The turkey gnat, *Similium meridionale*, gained attention in 1990 when a major flood occurred on the Trinity and Brazos Rivers. That year, the turkey gnat was responsible for the deaths of an estimated 1,500 chickens and other birds. To date, this insect is known to occur on the Sulphur, Sabine, Trinity, Navasota, Brazos, Angelina and Neches Rivers.

Similium nyssa (no common name) has been found to occur mostly in Southeast Texas on the Angelina, Neches and San Jacinto Rivers and major bayous and creeks in this area. This pest commonly attacks cattle and readily bites man.

Two other black fly species have been detected by 1991 and 1992 surveys. These species have not been identified and are not thought to be a major pest problem.

Application. Results of these surveys will lead to a better understanding of the seasonal occurrence and biology of these pests. Through this, poultry, exotic bird, cattle and horse producers can be alerted to the potential threat and advised to take precautionary measures. Currently, there are no funded research programs in Texas to study the economic impact or control of these insects.