

First Survey of Seasonal Abundance and Daily Activity of Stomoxys calcitrans: In Zaouiet Sousse, the Sahel Area of Tunisia

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Abstract : The seasonal changes and the daily activity of *Stomoxys calcitrans* (Diptera: Muscidae) were examined, using Vavoua traps, in a dairy cattle farm in Zaouiet Sousse, the Sahel area of Tunisia during May 2014 to October 2014. Over this period, a total of 4366 hematophagous diptera were captured and *Stomoxys calcitrans* was the most commonly trapped species (96.52%). Analysis of the seasonal activity, showed that *S. calcitrans* is bivoltine, with two peaks: a significant peak is recorded in May-June, during the dry season, and a second peak at the end of October, which is quite weak. This seasonal pattern would depend on climatic factors, particularly the temperature of the manure and that of the air. The activity pattern of *Stomoxys calcitrans* was diurnal with seasonal variations. The daily rhythm shows a peak between 11:00 am to 15:00 pm in May and between 11:00 am to 17:00 pm in June. These vector flies are important pests of livestock in Tunisia, where they are known as a mechanical vector of several pathogens and have a considerable economic and health impact on livestock. A better knowledge of their ecology is a prerequisite for more efficient control measures.

Keywords : cattle farm, daily rhythm, *Stomoxys calcitrans*, seasonal activity

Conference Title : ICE 2017 : International Conference on Entomology

Conference Location : Paris, France

Conference Dates : October 19-20, 2017