

SINANTHROPY AND SEASONAL INCIDENCE OF *FANNIA PUNCTIPENNIS* (DIPTERA: FANNIIDAE) IN PELOTAS, RIO GRANDE DO SUL, BRAZIL.

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SUMMARY: The seasonal incidence and the synanthropic index (S.I.) of *Fannia punctipennis* in the Municipality of Pelotas, Rio Grande do Sul, Brazil, was observed through the capture of this insect in three different ecological areas. During one year, 2858 specimens of *Fannia punctipennis* were captured, 58,4% in uncultivated area, being the populational peak observed in January. The S.I. was -28,8, showing that *Fannia punctipennis* is a non synanthropic muscoid.

KEY WORDS: *Fannia punctipennis* seasonality, synanthropy, *Dermatobia hominis*, vector.

INTRODUCTION

The adults of *Fannia* sp. species can carry pathogenic agents on their legs and buccal apparatus, and also act as a vector for *Dermatobia hominis* eggs.

PALLOSCHI *et alii* (1985) found on the Santa Catarina plateau, *Musca domestica* and *Fannia* sp. acting as vectors for *Dermatobia hominis* eggs. Each *Fannia* sp. carried an average of 18,6 eggs.

RIBEIRO *et alii* (1985), working at Pelotas, RS, captured 94 egg vectors of *D. hominis*, 93 belonged to *Fannia* sp. and one to *Phaenicia* sp.. The number of eggs found in each fly ranged from 2 to 41, with a mean of 18,8.

QUEIROZ (1986) studied the synanthropic diptera muscoids in 7 biotopes from the metropolitan area of Curitiba, Paraná, Brazil, and collected 19,919 specimens of 20 species from the families Calliphoridae, Muscidae and Fanniidae.

OLIVEIRA (1986) made a study of the seasonal distribution of phoretic and synovine synanthropic diptera at the State of São Paulo, Brazil, and observed the families Muscidae, Fanniidae, Calliphoridae and Sarcophagidae as the ones with major importance among the synanthropic entomofauna.

RODÍGUEZ (1987) used the Mac Goon trap in Pelotas, and captured 5864 diptera, 54% of them belonged to genus *Fannia*.

RIBEIRO *et alii* (1985) observed the monthly populational fluctuation of *D. hominis* larvae during three years. They observed higher levels of infestation in the months of November, December and January.

BRUM *et alii* (1996) recorded for the first time in Pelotas, *F. punctipennis* carrying *D. hominis* eggs, with a mean number of 16.3 eggs per fly.

Due the importance of *F. punctipennis* as a carrier of *D. hominis* eggs in this area, the objective of this study was to know the synanthropic index and the seasonal incidence of this fly in Pelotas, state of Rio Grande do Sul, Brazil.

MATERIALS AND METHODS

Six Wind Oriented Traps (W.O.T.) were settled in three different ecological areas (urban, rural and uncultivated). Two traps were used for each area: one with a bait of decaying cattle liver and the other with decaying chicken viscera. The insects were collected weekly. The seasonal incidence was assessed through the total of specimens collected each month, and the synanthropic index was calculated by the NUORTEVA (1963) formula.

RESULTS AND DISCUSSION

During a one year period, 2878 specimens of *F. punctipennis* were collected, 58,4% of them in the uncultivated areas. As can be seen in Figure 1, the peak of captures for *F. punctipennis* occurred in January (1921 specimens), in

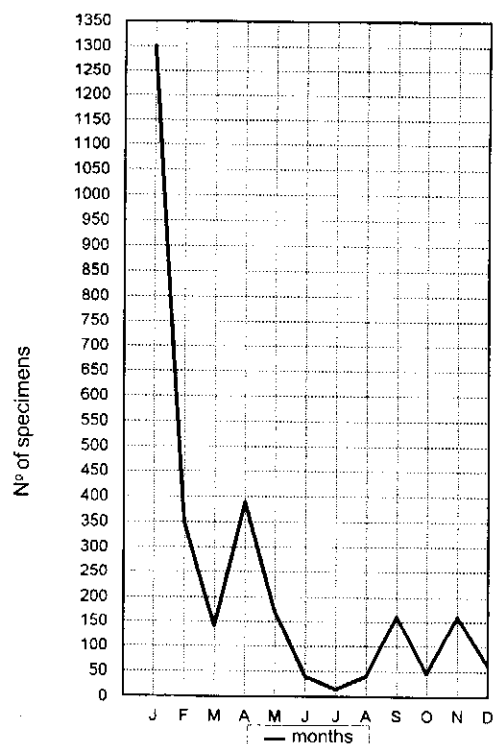


Fig. 1 - Seasonal incidence of *F. punctipennis* in Pelotas, Rio Grande do Sul State, Brazil.

agreement with RIBEIRO *et alii* (1989), who found a population peak for *D. hominis* during the summer. In the following months, a small increase occurred during fall and spring, with a marked drop in winter. However, captures were made on a year round basis, what evidences a good adaptation of that fly to the sub-tropical climate of this area. The S.I. was -28.8, what characterizes *F. punctipennis* as a non synanthropic muscoid. The S.I. ranged throughout the year from -63.9 in December to +31.4 in March. No differences were found regarding to the preference for the two used baits, since 54.4% of specimens were captured with chicken viscera bait and the remainders with the one made of decayed cattle liver.

SUMÁRIO

Foram estimados o índice sinantrópico e a flutuação populacional da *Fannia punctipennis* em Pelotas RS, através da captura destes dípteros em três áreas ecológicas distintas. No período de um ano foram capturadas 2878 espécimes de *F. punctipennis*, sendo que 58,4% destes foram capturados na zona silvestre e com pique populacional no mês de janeiro. O índice sinantrópico foi de -28,8, demonstrando que a *F. punctipennis* é um muscóideo assinantrópico. PALAVRAS-CHAVE: *Fannia punctipennis*, sazonalidade, sinantropia, *Dermatobia hominis*, vetor.

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