

SCIENTIFIC COMMUNICATION

FIRST RECORD OF *CULEX (CULEX) MAXI* DYAR
(DIPTERA: CULICIDAE) IN PERNAMBUCO STATE, BRAZILR.A.N. Ramos¹, G.J.A. Costa¹, G.A. de Carvalho², M.A.G. Faustino¹, L.C. Alves¹¹Universidade Federal Rural de Pernambuco, Departamento de Medicina Veterinária, Rua Dom Manoel de Medeiros, s/nº, CEP 52171-900, Recife, PE, Brasil. E-mail: rafaelanramos@yahoo.com.br

ABSTRACT

Culicid females of some species may be hematophagous and important vectors of different etiological agents. The aim of the present study was to report the first record of *Culex (Culex) maxi* (Diptera: Culicidae) in the state of Pernambuco, Brazil. Two hundred and fifty culicid larvae were collected for identification. The morphological descriptions were compatible with descriptions for *Cx. (Cx.) maxi*. This is the first record of the occurrence of *Cx. (Cx.) maxi* in the state of Pernambuco, Brazil.

KEY WORDS: Culicid, *Culex (Culex) maxi*, occurrence, Pernambuco.

RESUMO

PRIMEIRA OCORRÊNCIA DE *CULEX (CULEX) MAXI* DYAR (DIPTERA: CULICIDAE) NO ESTADO DE PERNAMBUCO, BRASIL. Fêmeas de culicídeos de algumas espécies podem ser hematófagas e importantes vetoras de diferentes agentes etiológicos. Objetivou-se assim, neste trabalho, registrar a primeira ocorrência de *Culex (Culex) maxi* no Estado de Pernambuco, Brasil. Para tanto, 250 larvas de culicídeos foram coletadas para identificação. As descrições morfológicas foram compatíveis com as descrições para a espécie *Cx. (Cx.) maxi*. Este artigo constitui a primeira ocorrência de *Cx. (Cx.) maxi* no Estado de Pernambuco, Brasil.

PALAVRAS CHAVE: Culicídeo, *Culex (Culex) maxi*, ocorrência, Pernambuco.

The importance of insects from the family Culicidae is related to habitat. Culicid females may be hematophagous, which makes some of them important vectors of different etiological agents, such as viruses, bacteria, protozoa and even metazoan (PERUZIN, 2009).

The occurrence of different species of culicids has been reported for the state of Pernambuco, Brazil, many of which transmit illnesses (ARAGÃO et al., 2010).

It is therefore increasingly important to record the fauna and potential culicid vectors in the state. The aim of the present study was to report the first record of *Culex (Culex) maxi* (Diptera: Culicidae) in the state of Pernambuco, Brazil.

In June 2010, a technical visit was paid to a rural property in the city of Floresta (08°36'04" S and 38°34'07" W) in the state of Pernambuco, during which the animal watering trough was inspected and exhibited the presence of numerous culicid larvae. The water also contained a large amount of organic matter.

Two hundred and fifty culicid larvae were collected, placed in plastic recipients containing water and taken to the Laboratory of Parasitic

Diseases of Domestic Animals of the Universidade Federal Rural de Pernambuco, Brazil, for identification.

Fourth instar larvae were mounted on slides and viewed under an optical microscope. Identification was performed using dichotomous keys and complementary scientific literature (FORATTINI, 1965; HARBACH et al., 1983; ALMIRÓN; HARBACH, 1996, FORATTINI, 2002).

Some larvae were kept in plastic recipients containing de-chlorinated water and fish food for the completion of the biological cycle (CONSOLI; LOURENÇO-DE-OLIVEIRA, 1994) and subsequent identification of adults using dichotomous keys and complementary scientific literature to elucidate morphological aspects specific (FORATTINI, 1965; CONSOLI; LOURENÇO-DE-OLIVEIRA, 1994; FORATTINI, 2002; ALMIRÓN; HARBACH, 1996). The male genitalia of ten mosquitoes was mounted on slides and observed in optical microscopy to compare with characteristics described by ALMIRÓN; HARBACH (1996) to *Cx. (Cx.) maxi* identification. The characteristics of the male and female adults were associated to those observed in the immature specimens.

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The larvae exhibited a long, narrow respiratory siphon with subapical spines in the terminal region, siphon pecten with thirteen scales and four sets of bristles, each with three bristles along the siphon. The morphology of the scales and respiratory siphon and the bristles on the eighth segment, thorax, head and antennae were compatible with descriptions of *Cx. (Cx.) maxi* (ALMIRÓN; HARBACH, 1996; HARBACH; PEYTON, 1992).

For the confirmation of the species, the adults were classified using identification keys (FORATTINI, 2002; FORATTINI, 1965; ALMIRÓN; HARBACH, 1996). The species is of medium size and has brown coloration, a proboscis with a light-colored ring in the distal region, long palps with dark spots, scales on the thorax and spiracles and bristles on the head and abdomen as well as on the male genitalia. These findings are compatible with descriptions for *Cx. (Cx.) maxi* (FORATTINI, 1965; ALMIRÓN; HARBACH, 1996; FORATTINI, 2002).

This is the first record of the occurrence of *Cx. (Cx.) maxi* in the state of Pernambuco, Brazil.

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