

SCIENTIFIC NOTE

FIRST RECORD OF *CULEX (MELANOCONION) PILOSUS* FROM CÓRDOBA CITY, ARGENTINA

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ABSTRACT. Larvae of *Culex (Melanoconion) pilosus* were collected in February 2006 during a survey of mosquito fauna inhabiting water bodies in an urban environment in Córdoba city. This is the 1st record of the species in this locality of Argentina, the most western report of this species in the Chaco phytogeographic region.

KEY WORDS *Culex (Melanoconion) pilosus*, distribution, Córdoba, Argentina

In Argentina, 26 species of *Culex (Melanoconion)* Theobald have been recorded. Most were collected in tropical and subtropical regions to the north and northeast of the country. *Culex pilosus* (Dyar and Knab) has been reported from Chaco, Córdoba, Corrientes, Misiones, Santa Fe, and Formosa provinces (Duret 1953, Mitchell and Darsie 1985, Darsie et al. 1991). In Chaco, *Cx. pilosus* larvae were collected year round, with an abundance peak in April (Stein et al. 2004).

Mosquitoes are important vectors of arboviruses all over the world, but are poorly studied in Argentina. Aura virus (Togaviridae: *Alphavirus*) was isolated in 1959 from a pool of *Cx. (Mel.)* sp. collected near Belem (Brazil). This same virus was later isolated from *Aedes (Ochlerotatus) serratus* (Theobald; Sabbatini et al. 1998). *Aedes serratus* and Aura virus overlap in distribution with *Cx. pilosus* in Argentina. Venezuelan equine encephalitis virus was isolated during an arbovirus investigation carried out in Argentina (1977–1980) from *Cx. (Mel.) delpontei* Duret, collected in Chaco, Corrientes, and Santa Fe provinces. An enzootic strain of the Western equine encephalitis virus was isolated from *Cx. (Mel.) ocosa* Dyar and Knab captured in Chaco province (Mitchell et al. 1985). Further investigations are needed to determine the role of the *Cx. (Mel.)* species in the transmission cycles of these arboviruses.

Culex (Mel.) species have also been reported from Argentina temperate regions. *Culex clarki* Evans, *Cx. delpontei*, *Cx. idottus* Dyar, *Cx.*

intrincatus Brèthes, and *Cx. oedipus* Root were found in the Buenos Aires province (Rossi et al. 2002). In Córdoba province, central Argentina, only *Cx. delpontei* (from the Espinal phytogeographic region), *Cx. intrincatus*, and *Cx. pilosus* have been found. The later two were discovered in Morteros, a locality in the northeast of the province bordering Santa Fe province (Brewer et al. 1991). According to Cabrera (1971), Morteros city also belonged to the Espinal region, but currently it is included in the Chaco phytogeographic region (Cabrera 1997).

Herein we report the occurrence of *Cx. pilosus* in Córdoba city, the most western report of this species in the Chaco phytogeographic region (Fig. 1). The climate in Córdoba city is temperate mesothermal, with an average annual rainfall ranging from 750 to 800 mm, mainly in October–December and March (Jarsún et al. 2003), and an elevated potential evapotranspiration rate that results in a pronounced water deficit (Capitanelli 1979). The area has been modified by urban development, agriculture, farming, and industrial activities.

During the summer of 2006 (January–March) samples were collected with a standard dipper from 50 pools and ponds as part of a survey of mosquito fauna inhabiting water bodies in the urban environment of Córdoba city. Larvae of *Cx. pilosus* were found in 1 temporary pool with fresh clear standing water in a roadside ditch in full sun. The pool was approximately 6 m long and 1.5 m wide, with an average depth of 10 cm. Flooded grasses and emergent aquatic vegetation covered approximately 80% of the pool. A total of 43 larvae were collected from this site, of which 4 were *Cx. pilosus*. Other species included *Och. albifasciatus* (Macquart) and *Cx. maxi* Dyar.

Taxonomic determination was based on Darsie (1985). The addition of *Cx. pilosus* brings the number of mosquito species of Córdoba city to 20. The known range of the species is extended westward. The larvae are deposited in the

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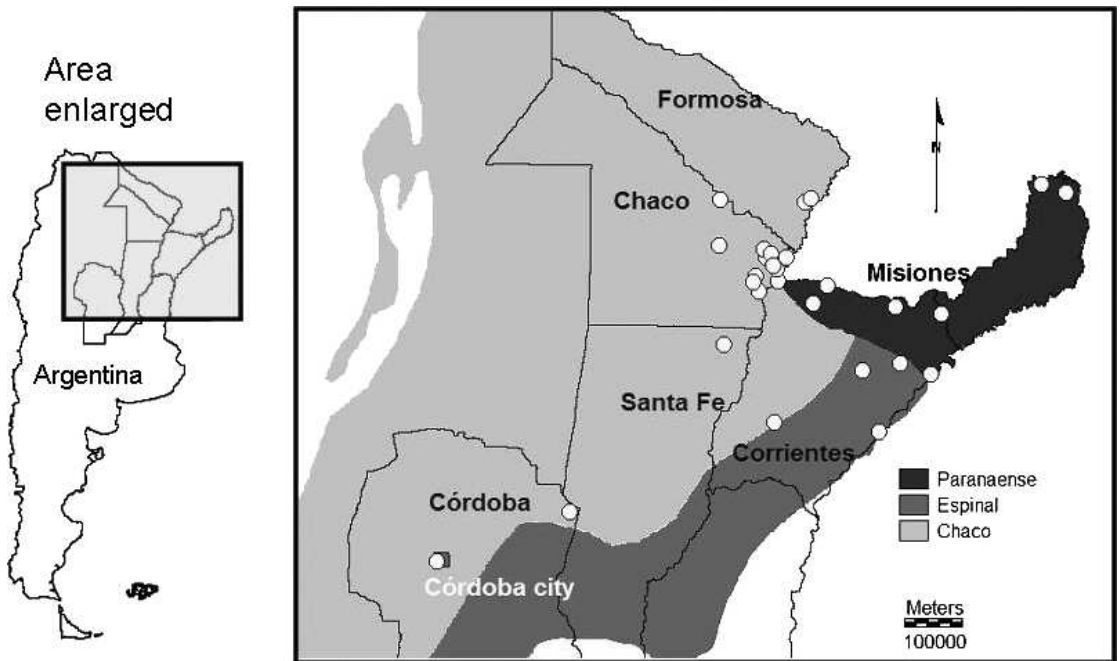


Fig. 1. Location of new record and previous reports of *Culex (Melanoconion) pilosus* in Argentina. Provinces and phytogeographic regions where the species has been reported are shown.

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