In 2004, the urban presence of Lutzomyia longipalpis was recorded for the first time in Formosa province. In 2006, the first autochthonous case of human urban visceral leishmaniasis (VL) was recorded in Misiones in the presence of the vector, along with some canine VL cases. After this first case, the vector began to spread primarily in northeast Argentina. Between 2008-2011, three human VL cases were reported in Salta province, but the presence of Lu. longipalpis was not recorded. Captures of Phlebotominae were made in Tartagal, Salta, in 2013, and the presence of Lu. longipalpis was first recorded in northwest Argentina at that time. Systematic sampling is recommended to observe the distribution and dispersion patterns of Lu. longipalpis and consider the risk of VL transmission in the region.

Key words: Lutzomyia longipalpis - visceral leishmaniasis - Argentina
In January, *Lu. longipalpis* was the only species captured and it was found at most of the sampling sites (1, 2, 3, 6, 7 and 9) (Table). During the period from April-May, four Phlebotominae species were found, with *Lu. longipalpis* being the most abundant species (57%) present at sites 2, 3, 6, 7, 9, 8N and 10. Until then, *Lu. longipalpis* had been recorded in northeast Argentina, in Misiones (Salomón et al. 2001b, 2011c), Formosa (Salomón & Orellano 2005), Corrientes (Salomón et al. 2009), Chaco (Salomón et al. 2011c) and Entre Ríos (Salomón et al. 2011b, Gould et al. 2013) provinces. In the present work, *Lu. longipalpis*, the main vector that has thus far been found to be responsible for VL transmission in Argentina (Gould et al. 2013), was recorded for the first time in northwest Argentina. This vector was detected in peri-domestic and urban environments that had an abundance of *Mg. migonei*, which is a putative vector in Santiago del Estero province (Salomón et al. 2010). This species was also associated with natural infection by *Leishmania* (*Leishmania*) *infantum* (= chagasi) in a Brazilian focal point (de Carvalho et al. 2010). In entomological studies performed in Salta province during the 1988-2000 period, no presence of *Lu. longipalpis* was recorded (Salomón et al. 2001a). In 2005, captures were performed near the area under study (at a distance between 3-13 km), but there was no record of the main species responsible for VL transmission (Salomón et al. 2008a). Based on a review of historic (pre-1950) VL cases in Argentina, four VL cases were recorded in Salta province. Considering the absence of *Lu. longipalpis*, it was stated that these cases must have been caused by *Leishmania* spp visceralisation in areas that are hyper-endemic for tegumentary leishmaniasis or VL enzootic foci, with sporadic and exceptional human transmission (Salomón et al. 2001a). After the urban introduction of VL to northeast Argentina in 2006 and the broad dispersion of parasites caused by the migration of infected dogs, three VL cases were reported in Salta province (Gould et al. 2013). In one case, the presence of the *L. (L.) infantum* parasite was confirmed and identified by polymerase chain reaction. An area with deforestation activities that was located 70 km away from the study area of the present work has been suggested as the likely source of infection (Barrio et al. 2012). After confirming the presence of *Lu. longipalpis* in this study and after the parasite circulation in the region increased because of canine migration and VL outbreaks in Paraguay and northeast Argentina, the risk of urban VL epidemic transmission in northwest Argentina will increase, necessitating the implementation of (pursuant to legislation) human case surveillance and the estimation of canine prevalence. Regarding vector surveillance, given the lack of information about the vector’s temporal and spatial distribution in the northwest region, close to the Bolivian border, it is recommended that stratified surveillance and longitudinal monitoring over time be performed, along with assessment of the dispersion and risk levels. Additionally, given the dispersion and distance between the previous records of *Lu. longipalpis* in Argentina from 2004 to date [i.e., the records of *Lu. longipalpis* in Uyuni, Potosí department, Bolivia, approximately 500 km from Tartagal (Le Pont & Desjeux 1985, Le Pont et al. 1989), and a record of *Lu. longipalpis* in Boquerón department, Paraguay, approximately 250 km from Tartagal (MTR, unpublished observations)], it is important to perform comparative research (De la Riva et al. 2001) to define whether the population identified in this paper is the same population that was present in the northeast region of Argentina.

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REFERENCES


