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APPARENT TREND TO DOMESTICITY OBSERVED IN *PANSTRONGYLUS RUFOTUBERCULATUS* CHAMPION, 1899 (HEMIPTERA: REDUVIIDAE) IN BOLIVIA

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ABSTRACT: The recent collection of nymphal instars of *Panstrongylus rufotuberculatus* Champion, 1899 (Hemiptera: Reduviidae) from a domestic habitat in Bolivia draws attention to the behaviour of this sylvatic triatomine species and demonstrates its ability to colonize domestic structures. The relevance of this observation to the vector control programme is discussed.

KEY WORDS: Hemiptera, Reduviidae, Triatominae, Panstrongylus rufotuberculatus, domiciliation, Bolivia.

Panstrongylus rufotuberculatus Champion, 1899 is basically a sylvatic triatomine species widely distributed in Central America and in northern South America (LENT & WYGODZINSKY, 1979). It has been reported associated with kinkajou, vampire bats and common opossum (RODRIGUES & MELO, 1942; D'ALESSANDRO, BARRETO & THOMAS, 1981; MILES, DE SOUZA & POVOA, 1981). Beside these natural hosts, little is known about its sylvatic habits. Adult specimens have been observed occasionally in human dwellings in Ecuador and Peru where, attracted to a light source, they can be presumed to have taken temporary refuge (LEON & LEON, 1953; WHITLAW & CHANIOTIS, 1978; LENT & WYGODZINSKY, 1979). Nevertheless, the absence of nymphal instars discarded a phenomenon of adaptation to domestic structures in these countries.

Until now, *P. rufotuberculatus* in Bolivia was only reported in sylvatic environment (TORRICO, 1958). Our surveys carried out from 1992 in the subandean region of the Eastern Cordillera pointed out its presence in domestic situations, as well. In the Huaritolo District (Province of Inquisivi, altitude 2600 m) and in the Carrasco District (Province of Nor Yungas, altitude 1500 m), two areas in other respects infested by *Triatoma infestans* and endemic for Chagas disease, *P. rufotuberculatus* adult forms were observed in human dwellings on several occasions (nine infested houses from different localities). Moreover, a *P. rufotuberculatus* sample formed by a male adult and four nymphs (two third instars and two fifth instars) was detected within a house at Carrasco. The infested dwelling, situated in a forest environment, was made of unplastered adobe bricks roofed with zinc sheets. Consequently, this recent observation draws attention to the behaviour of this sylvatic species and demonstrates its ability to colonize domestic structures.

Microscopic examination of faeces from 14 *P. rufotuberculatus* showed no parasite. Nevertheless, preliminary results of the PCR technique performed on the same faecal samples and according to BRENIÈRE *et al.* (1992) showed the presence of *Trypanosoma cruzi* parasites in one nymphal instar. In this one the hybridization procedure identified clones 20 and 39, both known from the domestic cycle in Bolivia.

These recent data relating to *P. rufotuberculatus* allow us to make two further remarks:

–this widely distributed triatomine species may be considered as occupying greater climatic and altitude ranges, from lowland rainforests (Costa Rica, Amazon forest) to arid highlands (Inquisivi province of Bolivia; 2600 m), passing by sub-tropical forest of middle altitude (Nor Yungas Province of Bolivia; 1500 m);

–the association of *T. infestans* and *P. rufotuberculatus* in the Bolivian subandean region is an important finding; indeed, the local capacity of P. rufotuberculatus to invade human dwellings after eradication of *T. infestans* cannot be discarded.

A more accurate knowledge of this triatomine species through its distribution, adaptative trend to domesticity, population dynamics, vectorial capacity and susceptibility to insecticide would be important within the Chagas control programme and essential in localities where it is presently colonizing human structures.

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