

Effects of mammal host diversity and density on the infection level of *Trypanosoma cruzi* in sylvatic kissing bugs

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© 2014 The Royal Entomological Society. Several reports have described host species diversity and identity as the most important factors influencing disease risk, producing either dilution or amplification of the pathogen in a host community. Triatomine vectors, mammals and the protozoan *Trypanosoma cruzi* (Trypanosomatida: Trypanosomatidae) Chagas are involved in the wild cycle of Chagas disease, in which infection of mammals occurs by contamination of mucous membranes or skin abrasions with insect-infected faeces. We examined the extent to which host diversity and identity determine the infection level observed in vector populations (i.e. disease risk in humans). We recorded infection in triatomine colonies and on the coexisting host mammalian species in semi-arid Chile. Host diversity, and total and infected host species densities are used as predictor variables for disease risk. Disease risk did not correlate with host diversity changes. However, the densities of each infected rodent