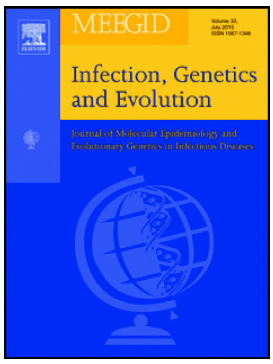

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Landscape epidemiology in urban environments: the example of rodent-borne *Trypanosoma* in Niamey, Niger

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Abstract

Trypanosomes are protozoan parasites found worldwide, infecting humans and animals. In the past decade, the number of reports on atypical human cases due to *Trypanosoma lewisi* or *T. lewisi*-like has increased urging to investigate the multiple factors driving the disease dynamics, particularly in cities where rodents and humans co-exist at high densities. In the present survey, we used a species distribution model, Maxent, to assess the spatial pattern of *Trypanosoma*-positive rodents in the city of Niamey. The explanatory variables were landscape metrics describing urban landscape composition and physiognomy computed from 8 land-cover classes. We computed the metrics around each data location using a set of circular buffers of increasing radii (20 m, 40 m, 60 m, 80 m