Mapping the potential risk of human visceral leishmaniasis in Morocco

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Visceral leishmaniasis is the most fatal forms of leishmaniasis. It is potentially lethal if left untreated. Leishmania infantum is the etiological agent of HVL in the Mediterranean regions including Morocco. Its main transmission mode is by the bite of infected phlebotomine sand fly insects which are the only proven vectors of this protozoan with dogs being considered the major reservoir of the parasite for humans and other mammalian hosts. In Morocco, human visceral leishmaniasis (HVL) represents an important problem for public health mainly in northern areas but recently, more autochthonous and imported cases were reported in central and southern Morocco, areas traditionally considered to be free from L. infantum. Our objective is to determine the potential distribution of L. infantum and its incriminated vectors in Morocco and estimate their ecological niche using the ecological niche modeling. Our results identified the districts at HVL risk and they are divided into three categories based on their possible exposure to VL risks. Areas with high risk where conditions suitable across the whole district and areas with moderate disease risk where suitable conditions is limited only to small belt in the western side of district, and others with low disease risk where conditions were unsuitable.

Biography
Asmae Zarrouk is Ph.D. in Biology at the Faculty of Sciences of Tetouan in Morocco: Specialization Ecology and Epidemiology. She have an article "Ecological and epidemiological status of species of Phlebotomus perniciosus complex (Diptera: Psychodidae, Phlebotominae) in Morocco" (ZARROUK et al., 2015). She participated by oral communication "Seasonal Fluctuations of Sandfly Populations (Diptera: Psychodidae) in Endemic and Non-endemic Areas of VL, Northern Morocco" at the 9th International Francophone Conference of Entomology (CIFE) in Montpellier. 2-6 July 2018 and a posted communication "Epidemiology of visceral leishmaniasis in northern Morocco”. Workshop Molecular Biology of Leishmania in Trieste, Italy.22 - 24 October 2018.

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