

Abstract

Sand flies are small two-winged important as carriers of various pathogens, such as parasitic protozoa of the genus *Leishmania* or viruses of the genus *Phlebovirus*. Leishmaniasis is a parasitic disease with various clinical forms and affects 700,000 to 1 million people every year. There are 20-25 species of sand flies belonging to the genera *Phlebotomus* and *Sergentomyia* in Europe, mainly in the Mediterranean region. However, due to climate and environmental change, various species of sand flies are spreading to other European countries located to the north of the Mediterranean Sea. Knowledge of the spatial distribution of sand flies is essential for assessing the risks of transmission of diseases in different regions of Europe. This bachelor tries to summarise current knowledge about current and future changes in sand fly distribution in Europe.

Key words: phlebotomus, sand fly, Europe, distribution, vector, *Phlebotomus*, *Sergentomyia*, Mediterranean area, area outside the Mediterranean, leishmaniasis, *Leishmania*