

Phlebotomine sand flies are vectors of important human and veterinary infectious diseases which are distributed mainly in subtropical and tropical areas around the world. The most important transmitted infection is leishmaniosis.

Over 900 species and subspecies of Phlebotominae subfamily have been described and classified into 32 genera. Their taxonomy has not been fully resolved yet. Morphological identification of each species is time-consuming, some species are even morphologically undefinable. For these reasons the molecular methods of identification are used. The methods described in this bachelor thesis study molecular structures and etologic displays. All these methods had been used for species identification of sand flies and are followed by examples of usage, advantages and disadvantages.