

## ABSTRACT

### DIVERSITY AND DISTRIBUTION OF SANDFLIES PHLEBOTOMINE IN THE COUNTRYSIDES OF AYDIN REGION WHERE CUTANEOSE AND VISCERAL LEISHMANIASIS ARE ENDEMIC

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An extensive survey was conducted to determine the diversity and distribution of sandflies belonging to Phlebotominae subfamily in 9 different areas of Nazilli, Köşk and Sultanhisar towns of Aydin region. Samples were collected in between June and July 2011 and August 2012. Villages of the patients who applied to Adnan Menderes University hospital were considered at determining the sampling sides. Light traps and sticky papers were used to collect sandflies. The traps were established at sunset and collected next day early in the morning. Totally 1624 sandflies were collected with light traps (459) and sticky papers (1.165). Morphological studies showed that collected sandflies with light traps consisted of 248 females and 211 males, whereas 475 female and 690 male individuals were obtained from sticky papers. It was determined that collected sandflies were belong to genera *Phlebotomus* and *Sergentomyia*. After taxonomic studies, 7 different species belong to genus *Phlebotomus* (*Phlebotomus papatasi*, *P. tobbi*, *P. simici*, *P. similis*, *P. brevis*, *P. alexandri*, *P. neglectus/syriacus*) and two species belong to genus *Sergentomyia* (*Sergentomyia. dentata*, *S. minuta*) were determined.

It was determined that 150 (79♀, 71♂), 193 (130♀, 63♂), 182 (48♀, 134♂), 22 (12♀, 10♂), 42 (13♀, 29♂), 4♀, 3 (1♀, 2♂), 1.010 (426♀, 584♂) and 18 (10♀, 8♂) individuals were belong to *P. papatasi*, *P. tobbi*, *P. neglectus/syriacus*, *P. similis*, *P. simici*, *P. brevis*, *P. alexandri*, *S. dentata* and *S. minuta* species respectively. Regarding with genus and subgenus level, 596 individuals were belong to genus *Phlebotomus* and 25, 375 and 46 of them were belong to *Paraphlebotomus*, *Larrousius* and *Adlerius* subgenera, respectively. *Sergentomyia* genus had 1028 individuals.

**Key words:** Sandflies, *Phlebotomus*, *Sergentomyia*, *Leishmania*