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INTRODUCTION. *Sergentomyia* genus includes a widespread group of phlebotomine sand fly species, *S. minuta* being the only member recorded in Italy. When Italian specimens of this species were examined for kinetoplastid flagellates by gold standard methods (*sensu* Seblova et al., 2014 Parasit Vectors 7: 22) (gut dissection, microscopy evaluation of developmental stage and load of detected morphotypes, culture isolation and biochemical/molecular typing), they had always been found infected by *Leishmania (Sauroleishmania) tarentolae* and/or *Trypanosoma platydictyli* (Pozio et al., 1986 in: *Leishmania. Taxonomie et phylogénèse*, IMEEE, Montpellier 149-55; Maroli et al., 1988 Trans R Soc Trop Med Hyg. 82: 227-8; Gramiccia et al., 1989 Ann Parasitol Hum Comp. 64: 154-6; Gramiccia, 2013 EDENext final report, data on file). Since *Leishmania (Leishmania) infantum* DNA has recently been identified in Italian *S. minuta* specimens (Latrofa et al., 2018 Vet Parasitol. 253: 39-42; Pombi et al., 2020 Med Vet Entomol. 34: 470-5), we aimed to check whether a gold-standard approach could confirm natural *L. infantum* infections in females of this species from an area where *S. minuta* has been found positive by *Leishmania* PCR.

MATERIALS AND METHODS. A survey was performed in Monteporzio Catone, Rome (Fig. 1), agricultural area in Rome's outskirts. CDC light traps (Fig. 2) were placed along unpaved roads bordered by dry stone walls (Fig. 3), from July till September 2017, far away from animal shelters to minimize collection of species different from *S. minuta*. Live females were identified upon dissection and examined for flagellates as described above. Typing of cultured organisms was carried out by ribosomal ITS1-PCR RFLP and sequencing is in progress (Di Muccio et al., 2015 PLoS One. 10: e0129418).



Fig. 1 Map showing the location of the sampled area



Fig. 2 CDC light traps



Fig. 3 Suitable environment for trap placing

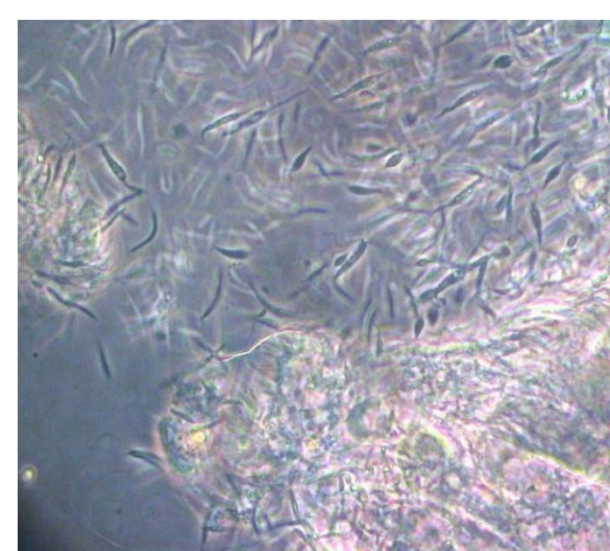
RESULTS AND CONCLUSIONS. Out of 129 *S. minuta* morphologically identified specimens, by spermathecae and pharynx microscopical examination (Fig. 4, 5), 6 (4.7%) harboured massive infections by mobile and culturable flagellates (Fig. 6): 3 by epi- and trypomastigotes morphologically identical to *T. platydictyli* ISS reference strains; 1 by promastigotes typed molecularly as *L. tarentolae*; and 2 by a mixed infection (pro- and trypomastigotes) in which promastigotes were also identified as *L. tarentolae*; hence, no *L. infantum* viable infection has been found. Whereas these data confirm *S. minuta* as a vector of two distinct Trypanosomatidae species, further studies, including experimental infections, are required to clarify if this sand fly species may permit full development and transmission of *L. infantum*.



Fig. 4 Spermathecae of *S. minuta* female



Fig. 5 *S. minuta* pharynx



Fi. 6 Sand fly's gut harbouring flagellates