

# *Trichopoda pennipes* F. (Diptera, Tachinidae): A new natural enemy of *Nezara viridula* (L.) in Slovenia – short communication

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Following the introduction of *Nezara viridula* (L.) into North America, the native parasitoid tachinid fly *Trichopoda pennipes* Fabr. became one of its natural enemies (Jones 1988). Approximately fifteen years ago, *T. pennipes* was accidentally introduced into Italy in the vicinity of Rome, probably by overseas shipments carrying *N. viridula* (Colazza et al. 1996). It has since spread rapidly across the Italian peninsula, colonizing first the coastal areas (Solarno et al. 2002) and is nowadays relatively common in Italy. Since *Nezara viridula* is a good disperser (Knight and Gurr 2007), it was only a matter of time before *T. pennipes* was to be found in Slovenia.

The members of the Department of Entomology of the National Institute of Biology have been collecting *N. viridula* since the beginning of the nineties in the area of Koper (x = 43065.9, y = 401387.3) and Piran (x = 43182, y = 389843), in 2005 also in Mirensko polje (field of Miren) near Nova Gorica (x = 84069, y = 391793) and in 2006 in Manče in the Vipava valley (x = 75669, y = 417956). *N. viridula* was collected by beating bushes (not always: not in Manče or Miren) and caught from the beating sheet. Both adults and 4<sup>th</sup> instar nymphs were collected.

*T. pennipes* was found in Koper, Piran and the area of Nova Gorica. The first parasitized animals in Koper were found in the autumn of 2003. In the years 2004 and 2005 parasitized animals were collected also in Piran. However, in 2006, we collected in Piran only one not-parasitized pair of *N. viridula*. In the area of Nova Gorica we found *T. pennipes* in 2005.

On 18 October 2006, we found in Koper that 77 of the 497 adult *N. viridula* were parasitized. Of these, 24 females (approx. 10% of the female population) and 53 males (approx. 20% of the male population) were parasitized with *T. pennipes*. This is in accordance with the parasitization rate during the early years of the introduction into Italy (Solarno et al. 2002). Under laboratory conditions (20–23°C, 18L:8N), 19 maggots emerged from 25 parasitized females. The duration of the pupal stage ranged from 14 to 19 days, only 10 adults emerged.

The distribution of *T. pennipes* is expected to correspond to be the same as the distribution of its host, *N. viridula*, which covers the Primorska region as far north as Tolmin (pers. comm. A. Gogala and M. Gogala).

The consequences of the introduction of such an alien parasitoid or predatory species on the native fauna are well

surveyed and can have the potential to be disastrous (Johnson et al. 2005, Koch 2003). In Italy, *T. pennipes* was not found to have any hosts other than *N. viridula* (Solarno et al. 2002). However, related *Trichopoda* species introduced to Australia and Hawaii were found to be also attacking native pentatomid species (Sands and Coombs 1999, Johnson et al. 2005).

Although it has been shown that population numbers of the economically important pest *N. viridula* can decline dramatically due to *Trichopoda* parasitoids (Coombs 2002), it has to be taken into account that *T. pennipes* is a generalist and will probably not only affect the target host. We therefore, suggest monitoring this species; investigations of its distribution and its effect on *N. viridula* and other pentatomid species are urgently needed.

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