

Abundance of parasitoid Hymenoptera on pupae of *Musca domestica* and *Stomoxys calcitrans* (Diptera, Muscidae) on pig farms in Vestfold, Norway

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Fly control on farms predominantly achieved by good cleaning routines and application of insecticides. As an alternative to insecticides, various pupal parasitoids have been released to control house flies, *Musca domestica* L., 1758 and stable flies, *Stomoxys calcitrans* (L., 1758) (Diptera, Muscidae). In Norway, *Nasonia vitripennis* (Walker, 1836) (Hymenoptera, Pteromalidae) has been used on pig farms during the last four years. The natural occurrence of parasitoid wasps on Norwegian farms has, however, never been investigated. Therefore, we examined fly pupae from 16 pig farms located in the South East of Norway for naturally occurring parasitoid wasps. Each farm was visited once during August 2002. On average, 17 % (range 0-97 %) of the fly pupae were parasitised on each farm. We found three species of parasitoid wasps not previously recorded from Norway: *Spalangia cameroni* Perkins, 1910, *S. nigripes* Curtis, 1839 and *Muscidifurax raptor* Girault & Saunders, 1910 (Hymenoptera, Pteromalidae). In addition *Phygadeuon* sp. Gravenhorst, 1829 (Hymenoptera, Ichneumonidae) and *Trichopria* sp. Ashmead, 1893 (Hymenoptera, Diapriidae) were found. As many as 95 % of the natural parasitoids were *S. cameroni*. The species currently used for biological control in Norway, *N. vitripennis*, was only recorded on three farms where the wasp was already released as a controlling agent. We suggest that the potential of *S. cameroni* in controlling house and stable flies in Norway should be examined closer.

Key-words: Pteromalidae, house fly, stable fly, pupal parasitoids.

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