

## ***Drosophila repleta* Wollaston (Diptera, Drosophilidae) new to Finland**

**Seppo Lakovaara & Juhani Itämies**

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Great numbers of *Drosophila repleta* Wollaston were found in 1989 in a cow barn near the city of Raahe, northern Finland, and later in 1993 in a garden in the city of Kuopio, Central Finland. The characters distinguishing the species from the closely related *Drosophila hydei* Sturtevant are given.

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In April 1989 the author Itämies received a letter containing a fly sample from Piehinki, close to the city of Raahe, northern Finland (64°30'N, 24°30'E; Finnish uniform 27°E grid system 716:37). The author Lakovaara identified the flies as *Drosophila repleta* Wollaston. Since *D. repleta* had not been before reported from Finland, we sent the flies to Dr. Gerhard Bächli (Zürich, Switzerland), who kindly confirmed the identification.

In May 1989 the author Itämies visited the cow barn in Piehinki and found it inhabited by a large amount of *Drosophila repleta*. The favourite breeding site was a urine well with concrete walls. Larvae and pupae of *D. repleta* covered these walls and were also found in the tubes leading to the well. According to the farmer the flies had occupied the barn in the autumn of 1987. Where they had come from and how they had occupied the barn was not known.

In the summer of 1993 the author Lakovaara collected some specimens of *D. repleta* in Kuopio,

Finland (62°53'N, 27°40'E; grid 697:53). These flies were supposed to live in the wild. Because this was the first time *D. repleta* was collected in the area, it may be a temporary visitor only.

*Drosophila repleta* is the nominate species of the *Drosophila repleta* group, which includes over 70 species (Wasserman 1982). Four species, namely *D. buzzatii* Patterson & Wheeler, *D. hydei* Sturtevant, *D. mercatorum* Patterson & Wheeler and *D. repleta* Wollaston, are found in Europe. The group is characterized by a mottled or dappled dorsum (small irregular dark patches round the sockets of bristles) and dark bands on the abdominal tergites (Colyer & Hammond 1951, Bächli & Burla 1985) (Fig. 1). *D. repleta* can be distinguished from *D. hydei* by the presence of a blackish first costal brake and the absence of long curved hairs on the male fore tarsi. For further details of identification see Bächli & Burla (1985).

*Drosophila repleta* is an indoor species (Bächli & Burla 1985) and has frequently been

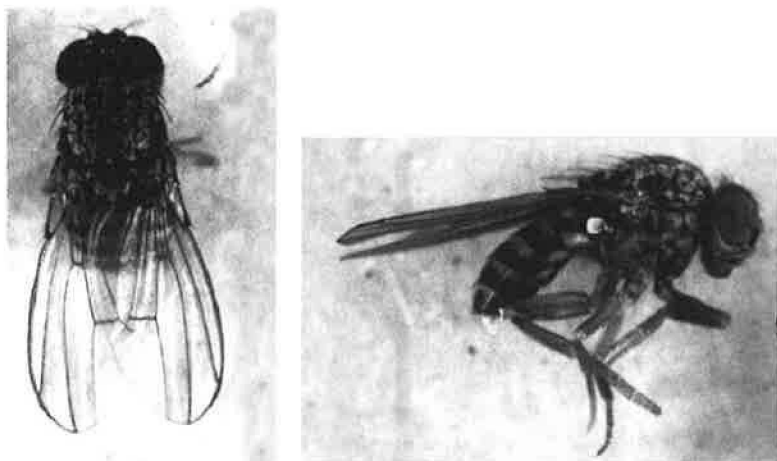


Fig. 1. Dorsal and lateral view of *Drosophila repleta* Wollaston.

found in cow barns (Bächli pers. comm.). It has also been found in restaurant kitchens, where it has been a nuisance when settling in considerable numbers on exposed food (Colyer & Hammond 1951). The main distribution area of the species is the Mediterranean and Oriental regions (Duda 1935), but it is frequently found also in Central Europe, as in southern Switzerland (Bächli & Burla 1985).

The new record increases the number of drosophilids found in Finland to 52 (Hackman 1980).

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