

## Rare flies recorded in Finland during the year 2002 (Diptera)

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In 2002 a number of flies were recorded from Finland for the first time: *Platypalpus annulipes*, *Dolichophorus kerteszi*, *Spiniphora maculata*, *Pipunculus zugmayeriae*, *Phytomyza pubicornis*, *Dicraeus vagans*, *Drosophila oldenbergi* and *Notiphila major*. New records for *Diplonevra concinna*, *Thecophora pusilla*, *Elachiptera diastema*, *Alliopsis conifrons* and *Coenosia means* are also discussed. These species were previously known to occur in Finland, but they were omitted from Hackman's (1980) checklist of Finnish flies.

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The faunistic knowledge of the Finnish Diptera fauna is still quite poor. Strong efforts during the post-war decades built a good knowledge base, but since the late 1960's collecting efforts have been sparse and the identification of species has mainly relied on the support by foreign specialists. Hackman's checklist of Finnish flies (1980), augmented with Silfverberg's updates (1981, 1986, 1991, 1996, 2001) is still the most complete and modern list of diptera in Fennoscandia.

The number of new records and new recorders of flies is now on the rise. As a result of the growing activity among Finnish dipterists some 20 fly species were added to the checklist during year 2002. This paper presents eight species that should be added to the list of Finnish flies, and new records of species listed as Finnish in the catalogue of Palearctic Diptera (Soós & Papp 1984-1994), but missing from Hackman's checklist of Finnish species.

The material presented in this paper was collected by netting flies from flowers, sweep-netting vegetation or by visually searching suitable surfaces for adult flies. The collecting was most intensive around authors' residences in southern (Helsinki, Turku) and south-central (Hartola, Sysmä) Finland. Collecting trips to the south-east (Puumala) and to the north-east yielded several new species for the country.

The specimens were pinned, dried and then examined and identified using a stereomicroscope. In the case of the muscids and anthomyids male genitalia were teased out with a needle. The keys in Bei-Bienko (1989) were used for identification. For dolichopodids, phorids and muscids the corresponding handbooks for the identification of British insects (d'Assis Fonseca 1978, Disney 1983 and d'Assis Fonseca 1968 respectively) were also used. Supporting identification material is listed in the species accounts. All identifications resulting in changes in the checklist were cross-checked by at least two members of the Finnish diptera study group.

### *Platypalpus annulipes* (Meigen 1822) (Hybotidae)

Ab: Turku, Satava (670:23), 4.6.-17.6.2002, 4 exx, K. Winqvist leg.

New to Finland. This hybotid belonging to the species-rich genus *Platypalpus* seemed to be surprisingly common in Satava in the early summer 2002. It was collected in different parts of the island. Yet it hadn't previously been recorded from Finland, but it was known from Sweden (*Upl.*) and Denmark (Chvala 1975).

### *Dolichophorus kerteszi* Lichtwardt 1902 (Dolichopodidae)

Ta: Hartola, Ansio (68420:4503), 9.6.2002, 1♂1♀, J. Kahanpää leg.

Ta: Hartola, Ansio (68420:4503), 15.6.2002, 2♂2♀, J. Kahanpää leg.

Ta: Sysmä, Vehkasalo (6837:428), 22.6.2002, 1♂, J. Kahanpää leg.

New to Finland. No records are known from Scandinavia, but the Zoological Museum of Helsinki (ZMH) has a female from Russian Karelia (Vaaseni 21.6.1942, L. Tiensuu det). The genus *Dolichophorus* is represented by only two species in the Palearctic region: *D. kerteszi*, and *D. immaculatus* Parent 1944 from China. Nothing is known about the life history of these species. The preferred habitat of *D. kerteszi* is clearly dry, open ground covered by rather coarse gravel. In Hartola, where *D. kerteszi* was found rather numerously at an old gravel pit, the flora practically consisted of *Astragalus alpinus*. Based on this rather small sample it seems that the flies prefers to rest on plants that are in open shade and on the edge of or in the vicinity of dense stands of *A. alpinus*.

***Diplonevra concinna* (Meigen 1830) (Phoridae)**

Sa: Puumala, Kivioja (68354:5571), 27.7.2002, 1♂, J. Kahanpää leg.

*D. concinna* (Mg.) is the most commonly collected *Diplonevra* in both Denmark and Sweden. It is quite surprising that it had not been reported from Finland. The male from Puumala was swept from dense *Carex* vegetation on the edge of an open bog. Several *Diplonevra* specimens were seen at the site, but only one was collected for identification. Of the Finnish *Diplonevra* species only *D. nitidula* is common. *Diplonevra florea* is not numerous, and the others are seldom collected and represented by only a few specimens in museum material.

***Spiniphora maculata* (Meigen 1830) (Phoridae)**

Ta: Hartola, Hirtesalo (6839:450), 29.4.2002, 1♂, J. Kahanpää leg.

New to Finland. No additional specimens were found in the Fennica collection or among undetermined phorid material at ZMH. *S. maculata* is the only large Finnish phorid with a clear dark patch at the end of the costal vein (Fig. 1). The only known Finnish specimen was found walking on the surface of a dead birch stump standing in a wet, shaded deciduous forest. The fly was very reluctant to fly and was finally collected directly into a vial.

***Pipunculus zugmayeriae* Kowarz 1887 (Pipunculidae)**

Ab: Turku, Satava (6706:232), 1.7.2002, 1♂, K. Winqvist leg.

New to Finland. Pipunculidae is one of the least known fly families in Finland and the genus *Pipunculus* is regarded as taxonomically difficult. *P. zugmayeriae* is, however, recognizable above all because of its exceptional costal ratio (1:2). The specimen from Satava was swept from a dry meadow slope in the evening. The only previous North European record of this species is from Denmark (Petersen & Meier 2001, Tanasijtshuk 1988)

***Thecophora pusilla* (Meigen 1824) (Conopidae)**

N: Helsinki, Viikinranta (6679:388), 9.8.2002, 1♂1♀, J. Kahanpää leg.



Fig 1: The male of *Spiniphora maculata* from Hartola (Ta), showing the characteristic dark patch at the end of the costal vein.

Two specimens of this very small, black conopid were swept from low vegetation growing on a mixture of sand and dried mud. The habitat was open, but sheltered and very warm. Having notes that this species is not listed in Hackman's list of Finnish files I returned to the site a week later, but an hour of sweeping in good weather failed to produce more material.

The status of this species in Finland has been unsure for some time. The catalogue of Palearctic Diptera by Soós & Papp lists it as Finnish and the conopid collection of ZMH includes a unit labeled '*T. pusilla/atra*', but most specimens in this unit belong either to *Thecophora atra* or to *T. fulvipes*.

***Phytomyza pubicornis* Hendel 1920 (Agromyzidae)**

Ab: Turku, Satava (6704:230), 4.6.2002, 1 ex, K. Winqvist leg.

New to Finland. This species was swept from an ex-garden full of its food plant *Aegopodium podagraria*. Its occurrence in Satava is no great surprise since it has been widely recorded from Sweden. The species was missing from Hackman's check list (1980) and no material is found in Finnish museum collection, but Lauri Tiensuu's unpublished notes include records of it from the provinces Ka and Ta.

***Dicraeus vagans* (Meigen 1838) (Chloropidae)**

Ab: Turku, Satava (6706:236), 17.6.2002, 1 ex, K. Winqvist leg.

New to Finland. This chloropid living on *Arrhenaterium elatius* was swept from tussocks in a roadside waste-

land near an oak forest. The species has been recorded from Estonia (1 ex), southern provinces of Sweden and in Denmark it is a common species (Petersen & Meier 2001). It is a distinctive species with its yellow humeri and pleurae.

***Elachiptera diastema* Collin 1946 (Chloropidae)**

*N*: Helsinki, 4-5/1906, 1♂, R. Frey leg.  
*N*: Helsinki, Munkkiniemi, 13.5.1923, 1♂, W. Hellén leg.  
*N*: Espoo, 1932, 1♀, R. Tuomikoski leg.  
*N*: Helsinki, 20.4.1941, 1♂, L. Tiensuu leg.  
*N*: Helsinki, 6.12.1946, 1♀, G. Stannius leg.  
*N*: Helsinki, 10.6.1948, 1♀, R. Frey leg.  
*Ka*: Hamina (671:51), 30.7.1982, 1♀, A. Albrecht leg.  
*Ab*: Turku, Satava (6704:230), 13.4.2002, 1 ex, K. Winqvist leg.

This species was found by sweeping around places where snow had melted away in spring 2002. *Elachiptera* is a commonly encountered genus in spring, especially *cornuta* and *tuberculifera* are frequent. *E. diastema* seems to be far less common, but it is possible that it has been overlooked since it resembles *cornuta* a lot. The most reliable diagnostic feature between these two species is the distance between the apical scutellar bristles. The diptera collection of ZMH includes seven additional specimens (E. Nartshuk det.). This species is now known from the southern provinces *Ab*, *N* and *Ka*.

***Drosophila oldenbergi* Dud 1924 (Drosophilidae)**

*Sa*: Puumala (68354:5571), 27.7.2002, 1♀, J. Kahanpää leg.

New to Fennoscandia. A single female of this mainly eastern species was collected from Puumala in south-eastern Finland during the joint collecting trip of the Finnish Coleoptera and Diptera study groups. The habitat was an old, humid spruce forest and the fly was found resting on the surface of a wet, moss-covered boulder. *D. oldenbergi* is known from St. Petersburg (Hackman 1957) and montaneous central Europe (Bächli & Burla 1985). Identifying this species should cause no problem as *D. oldenbergi* is clearly larger than most *Drosophila* and strongly marked. The male genitalia are figured in Hackman (1957) and those of the female in Hackman (1965).

***Notiphila major* Stenhammar 1844 (Ephydriidae)**

*Lkor*: Sodankylä, Aska (74659:4868), 11.7.2002, 1♂, J. Kahanpää leg.

New to Finland. This shore fly is rare, with only a few known records from Sweden and northern Russia (Ural, Sajan Mount.). *N. major* belongs to a group of species with partly yellow antennae, a yellowish brown face and an unstriped mesonotum. Within this group the large size of *major* (body length 6-7 mm) serves as a good field characteristic.

The Finnish specimen deviate slightly from the description of *major* given by Krivosheina's (1998) revision of *Notiphila*: the body length is only 6 mm, not 7 mm; coloration is pale brownish instead of grey; mid tibia has only three dorsal setae and the abdomen has a weak pair of dark spots on 3. and 4. tergites. The male genitalia of the Finnish specimen are identical with those figured by Krivosheina for *N. major* and thus differ markedly from the genitalia of all other Palearctic *Notiphila* species.

***Alliopsis conifrons* (Zetterstedt 1845) (Anthomyiidae)**

*Li*: Utsjoki, Karigasniemi (77029:4544), 11.7.2002, 1♂, J. Kahanpää leg.

A survey of museum material revealed that *A. conifrons* is widely distributed in northern Finland (provinces *Obb*, *Ks*, *Lkoc*, *Le*, *Li*), but for some reason it is not listed in Hackman's catalogue of Finnish flies. The catalogue of Palearctic Diptera does however correctly list it as a Finnish species. It is also common and widely distributed in northern Sweden and Norway, Central Europe and through the Palearctic region all the way to China.

***Coenosia means* Meigen 1826 (Muscidae)**

*Lkor*: Sodankylä, Petkula (75135:4897), 11.7.2002, 2♂1♀, J. Kahanpää leg.

*Li*: Inari, Vastusjärvi (76627:5036), 10.7.2002, 1♂, J. Kahanpää leg.

*Obb*: Rovaniemen maalaiskunta, Pisavaara, 4.7.1950, 1♂, H. Lindberg leg.

*Ik*: Metsäpirtti (Russia), 1 ex, R. Frey leg.

Additionally the unpublished field notes of Lauri Tiensuu mention specimens from InL and Hamina (*Ka*). The record from Karelia is somewhat doubtful, but as this species has been recorded from southernmost Sweden, it cannot be rejected. The species has previously not been formally reported as new for Finland. *C. means* has a southern sibling taxon, *C. ambigua* Séguéy 1923, which was revalidated as a species by Pont (2000). These species share the otherwise characteristic combination of mostly black legs and two dorsal preapical bristles on hind tibia.

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#### Tiivistelmä — Finnish summary

Suomen kärpäslajisto tunnetaan melko huonosti. Havaintoaktiiviteetti on vuosikymmenien pituisen hiljaisen kauden jälkeen nyt nousussa ja maalle uusia lajeja on löytynyt runsaasti. Vuoden 2002 havaintojen perustella malle uusina lajeina ilmoitettamme kärpäset *Platypalpus annulipes*, *Dolichophorus kerteszi*, *Spiniphora maculata*, *Pipunculus zugmayeriae*, *Phytomyza pubicornis*, *Dicraeus vagans*, *Drosophila oldenbergi* ja *Notiphila major*. Näiden lajien lisäksi käsitellään joukko vuonna 2002 Suomesta tavattuja lajeja, joiden asema maassamme on aiemmin ollut epäselvä tai jotka puuttuvat Hackmanin vuonna 1980 julkaisemasta Suomen kärpästen luettelosta, vaikka lajit havaittiin Suomesta jo ennen luettelon kokoamista.