

# Carex pallens, a new host species of the smut Anthracoidea irregularis

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As *Carex pallens* (Fristedt) Harmaja (Cyperaceae) has been recognized as a valid species, this sedge becomes the fourth principal Nordic host species known for the ovaricolous smut fungus *Anthracoidea irregularis* (Liro) Boidol & Poelt. *Carex digitata* L.  $\times$  *pallens* is reported as a new host of *A. irregularis*. The smut has been found at six Finnish localities on *C. pallens* and at two on *C. digitata*  $\times$  *pallens*. Both smut-host combinations are new to Finland. *Anthracoidea irregularis* U. Braun & Hirsch is considered an illegitimate name, being superfluous and a later homonym of *A. irregularis* (Liro) Boidol & Poelt.

Key words: *Anthracoidea irregularis*, *Carex pallens*, Finland, nomenclature

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According to Nannfeldt (1979), the smut fungus *Anthracoidea irregularis* (Liro) Boidol & Poelt (Ustilaginales) inhabits three principal host species in the Nordic countries: *Carex digitata* L., *C. ornithopoda* Willd. and *C. pediformis* C.A. Meyer s. lato (Cyperaceae). The hosts are closely related and belong to sect. *Digitatae*. From the Nordic countries the smut is also known on the hybrid *C. digitata*  $\times$  *ornithopoda* and on the accidental host *C. tomentosa* L. (sect. *Montanae*; Nannfeldt 1979). One additional host, *C. halleriana* Asso (often included in the section *Hallerianae*), occurs in central Europe. The main area of the smut comprises northern, central and eastern Europe; it is also known on *C. pediformis* s. lato from Japan (Nannfeldt 1979) and Mongolia (Vánky, exsiccate).

Nannfeldt (1979) reported that besides occurring on *C. digitata* var. *digitata*, *A. irregularis* is found on *C. digitata* var. *pallens* Fristedt. Since the latter variety has been accorded specific rank, as *C. pallens* (Fristedt) Harmaja (Harmaja 1986, 1990), it becomes the fourth principal host species of *A. irregularis* in the Nordic countries.

In two Finnish localities (see below), I have found *A. irregularis* on *C. digitata*  $\times$  *pallens*, which is a new host of the smut. This hybrid was reported as new by Harmaja (1986) and was later treated more comprehensively in Harmaja (1990).

*A. irregularis* was found by me on *C. pallens* in five Finnish localities, and a search through the *Carex* and *Anthracoidea* collections of H revealed one more locality, all from the province Etelä-Häme; the specimens are listed below. In all but one case the infection is extremely sparse: only one or two infected perigynia were found. *C. digitata*, growing near by, was mostly infected, too, the infection usually being likewise very scanty. There are numerous collections of *A. irregularis* on the latter species from Etelä-Häme, and also some on *C. pediformis* subsp. *rhizoides* (Blytt) H. Lindb.

Both smut-host combinations, *A. irregularis*/*C. pallens* and *A. irregularis*/*C. digitata*  $\times$  *pallens*, are new to Finland. The former combination has been reported earlier from one locality in northern Sweden, prov. Ångermanland (Nannfeldt 1979).

Controversial opinions have been presented on the first valid publication of *Anthracoidea irregularis*. Nannfeldt (1979) and Vánky (1985) claim that the basionym is *Cintractia irregularis* Liro 1934, while Braun & Hirsch (1978), Stafleu & Cowan (1981) and Braun (1982) claim that this name was effectively published only in 1935, and is thus illegitimate because it was described in German, and Latin descriptions became obligatory from 1 January 1935. The decision is not easy. Liro indicates on the list of con-

tents attached on the cover of his bound exsiccata Mycotheca fennica Fasc. 1, and also in the bound book of exsiccata labels (Liro 1935: 2) that labels Nos. 1–100 were printed on 20.XII.1934. This information is probably reliable, but it does not indicate when the labels were made available, which is more important than the printing time. In the absence of definite data, I propose that Art. 30.1. of the 'Code' is followed ("in the absence of proof establishing some other date, the one appearing in the printed matter must be accepted as correct"). We may assume that, in spite of the Christmas season, the labels arrived in 1934 at the Department of Plant Pathology, University of Helsinki, where Professor Liro worked, and were immediately cut out and pasted on the exsiccata sets. This fulfils the requirement of effective publication, even if no finished, bound sets of the exsiccata (Liro 1934) were sent out that year. Indeed, it seems that the bound book of exsiccata labels (Liro 1935) was not published until 1935, later than the loose labels. The loose labels were thus presumably available before the book of labels, but, according to the 'Code', printed protologues on exsiccata labels constituted effective publication before 1953.

#### *Specimens examined*

##### *Anthracoidea irregularis/Carex pallens*

**Finland.** *Etelä-Häme.* Asikkala: Vääkso, VII.1946 Kalela (H). Koski: Huljala, Kukkolanharju, Grid 27°E: 6767:403, 3.VI.1984 Harmaja (H). Lammi: Ylämäki, Jyrkänmäki, alt. 170 m, Grid 27°E: 6774:394, 26.V.1986 Harmaja (H); Halila, Revasvuori, alt. ca. 150 m, Grid 27°E: 6774:396, 30.V.1986 Harmaja (H); Kaitala, WNW of Outsilta, infection fairly abundant, Grid 27°E: 6774:390, 24.V.1990 Harmaja (H). Sysmä: Karilanmaa, Grid 27°E: 6807:427, 24.VI.1990 Harmaja (H).

##### *Anthracoidea irregularis/Carex digitata x pallens*

**Finland.** *Etelä-Häme.* Lammi: Lampelto, SE of Revasvuori, alt. 130 m, Grid 27°E: 6774:396, 30.V.1986 Harmaja (H). Sysmä, Karilanmaa, Grid 27°E: 6807:427, 24.VI.1990 Harmaja (H).

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