



Cheilosia psilophthalma and Odinia boletina: Insects New to Ireland and Sapromyza sexpunctata Confirmed as an Irish Species (Diptera: Syrphidae, Odiniidae and Lauxaniidae)

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remarked that it enters shoal waters and is from time to time found stranded on the shore, particularly in the late autumn when the sea is cooling. Indeed, it is interesting to note that all of the Irish specimens were captured close inshore during the winter months: January (5) and November (1).

Went and Kennedy (1976) regarded *T. lepturus* as rare in Irish inshore waters and the current paucity of records would seem to reaffirm that view. However, in some years, such as in 1871, 1982 and 1983, the species would appear to have been relatively frequent in its occurrence in NE European waters. It is possible that the species migrates further north in some years, perhaps when feeding and/or oceanographical conditions are more favourable.

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**CHEILOSIA PSILOPHTHALMA AND ODINIA BOLETINA:
INSECTS NEW TO IRELAND
AND SAPROMYZA SEXPUNCTATA CONFIRMED AS AN IRISH
SPECIES (DIPTERA: SYRPHIDAE, ODINIIDAE AND
LAUXANIIDAE)**

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The present note concerns addition to the Irish list of two dipteran species and confirmation of the presence in Ireland of another. All specimens mentioned have been collected and identified by the author, except where otherwise stated. In the distribution records, Irish grid references are followed (in brackets) by the corresponding 50km UTM grid square code. Abbreviations used: col. = collected by; in coll. = in collections of; MS = M.C.D. Speight; NMI = National Museum of Ireland; NR = Nature Reserve; UM = Ulster Museum.

Cheilosia psilophthalma Becker, 1894 (Syrphidae)

Clare: Corkscrew Hill, M2002 (MU3), 21 April 1982, ♂, col. J. P. O'Connor, in coll. NMI.
Laois: Derries Wd, N5705 (PU1), 3 May 1977, ♀, on dead *Molinia* in the sun, trackside
edged by *Alnus* and *Salix*, conifer plantation on drained valley bog.

Wexford: Raven Wd NR, T1124 (PU4), 24 May 1975, ♀, on flowers of *Salix repens* L.,
fixed dune grassland.

Wicklow: Glendalough, T1196 (PU3), 3 May 1985, ♂, on flowers of *Prunus spinosa* L.,
in the sun, trackside, between *Betula/Quercus* woods and rough pasture.

This hoverfly has only been adequately distinguished from the closely similar *C. praecox* (Zetterstedt) quite recently (Claussen and Kassebeer 1993). *C. praecox* was added to the Irish list by Speight (1978). Re-examination of known Irish material of *C. praecox* shows that all specimens are referable to *C. psilophthalma*, so *C. praecox* should be removed from the Irish list. Re-examination of British specimens available to me shows that the presence of *C. praecox* in Great Britain can be confirmed. But there are as yet no confirmed British records of *C. psilophthalma*. In France, *C. psilophthalma* is known from the Vosges mountains in the east of the country and *C. praecox* itself occurs from the Vosges to the Pyrenees. The range of *C. psilophthalma* is as yet unknown due to confusion with related species, and Claussen and Kassebeer (1993) provide no range information for this species. It was originally described from Poland.

C. psilophthalma can be identified using the key provided by Claussen and Kassebeer (1993). A modified version of that key is presented here, excluding *C. latigenis* Claussen and Kassebeer, which is so far known only from the Pyrenees. I have found antennal colouration to be more variable in *C. praecox* than is suggested by Claussen and Kassebeer, and so have not used this feature as they do, in distinguishing between *C. praecox* and *C. psilophthalma*:

1. Arista with distinct, but short, hairs; hind tarsi entirely dark brown/black; abdominal tergites 2-4 with black hairs medially (may be very short in the female); male frons thickly grey-dusted; female eye-hairs very short or absent (claws bicoloured, with basal half brownish yellow and apical half black) *mutabilis* (Fallén)
- - - - arista bare: hind tarsi partly yellow; abdominal tergites 2-4 with entirely greyish-white hairs; male frontal dusting variable, often present only along the eye margins, but sometimes covering the entire frons; female eye-hairs long and distinct 2
2. Claws distinctly bicoloured, black and brownish-yellow; male frons not swollen; female antennal segment 3 one-and-a-half times as long as deep
. *praecox* (Zetterstedt)
- - - - claws black and dark brown, not obviously bicoloured (though paler basally); male frons somewhat swollen; female antennal segment 3 hardly longer than deep
. *psilophthalma* Becker

The male terminalia of these species (plus *C. latigenis*) are figured by Claussen and Kassebeer (1993). According to their paper, in *C. latigenis* the hind tarsi are entirely dark (as *C. mutabilis*), the tarsal claws are only obscurely bi-coloured (as in *C. psilophthalma*) and the arista is bare. Also, the antennae are consistently black and the male frons is entirely undusted.

Its early flight period renders *C. psilophthalma* susceptible to under-recording and its range in Ireland is unlikely to be adequately defined from the records given above. Its occurrence in various scrub woodland situations provides some indication of habitat requirements, but until the larval host plant(s) are recognized it will be difficult to be more precise concerning the needs of this insect. The larvae can be presumed to be miners in stems/stem bases of some low-growing plant, as are larvae of related species.

Odinia boletina (Zetterstedt), 1848 (Odiniidae)

Kerry: Doo L., Muckcross, Killarney National Park, V9586 (MT3), 30 August 1993,
Malaise trap, old *Betula/Quercus/Ilex* woods with many overmature *Betula*, in coll. NMI.

The small fly family Odiniidae is represented in Europe by 17 species scattered among 5 genera. Until now, the only *Odinia* species recorded from Ireland has been *O. xanthocera* Collin, a species which does not seem to have been found in Great Britain. *O. boletina* may be distinguished from the other members of this genus reported from the British Isles by means of the key provided by Collin (1952), augmented by the information in Cogan (1969). It is not possible to consider the identity of this insect in a wider European context at present, because of the uncertain status of some of the continental taxa involved and the lack of reliable taxonomic literature — there is need for review of the European *Odinia* species. *O. boletina* is a saproxylic associated with insect inhabitants of lignicolous polypore fungi on *Betula* (*Ganoderma*, *Bjerkandera*, *Polyporus*) and in Great Britain is probably the most frequent of the six *Odinia* species recorded there. Other species of the genus are associated with wood-boring larvae of beetles and Lepidoptera. The Irish record of *O. xanthocera* is based on specimens bred from mined stems of *Salix aurita*. Given the small size ($c2\text{mm}$) of *Odinia* species and their obscurity, the paucity of Irish records is hardly surprising. More extensive use of Malaise traps in Ireland might be expected to yield additional species. Similarly, further records of *O. boletina* might be expected from areas with stands of old birch.

Sapromyza sexpunctata Meigen, 1826

Kerry: Doo L., Muckross Peninsula, Killarney National Park, V9586 (MT3), 30 August 1993, ♂ and ♀, Malaise trap, old *Quercus/Betula* woods, in coll. NMI.

Among the *Sapromyza* species known from the British Isles there are but two in which palps, antennae and general body surface are entirely yellow except for a pair of round black spots on each of three of the abdominal tergites (tergites 4-6). The only reliable mention of either of these species in Ireland is to be found in Collin (1948), who says, when writing about *S. opaca* Becker: "Col. Yerbury's record of *S. sexpunctata* from Ireland may have been based upon specimens of this species, because one of his specimens in my possession is certainly *opaca*. It is labelled "Staigue Fort 19.7.01." There are Irish specimens of *S. opaca* in the collections of the National Museum, in Dublin, but none of *S. sexpunctata*.

Little is known of *S. sexpunctata*. Its life history has not been described and habitat data are similarly lacking. Known lauxaniid larvae are saprophagous in various situations. The Malaise traps which collected the species on the Muckross Peninsula were placed in old woodland of *Betula*, *Quercus* and *Fraxinus*, in which many of the *Betula* were senescent. There was virtually no ground flora or shrub layer and it is likely the flies were associated with the trees themselves. Published British records of this insect are from southern England. Papp's (1984) description of its range in the Palaearctic is "Europe (incl. the European parts of the USSR); all parts from tree-line to Italy". If it is indeed associated with overmature deciduous woodland, *S. sexpunctata* may well not be very frequent in Ireland. However, further records might be expected from use of Malaise traps in woodland localities.

The most conveniently available key for distinguishing *S. opaca* and *S. sexpunctata* is Collin's (1948), but his key is hardly encouraging, in that it provides no way of distinguishing the females beyond the statement that the thorax of *S. opaca* is "dull" while that of *S. sexpunctata* is "shining" and separates the males by means of unillustrated genitalic characters which are difficult to interpret without males of both species available for comparison. In the hope it may aid in the separation of these two species in future, I have figured the male terminalia of the Irish specimens and put together the following key couplet:

- A. Probasisternum with two black bristles each side of the mid-line; the three externally-visible components of the male terminalia comprising a long, median, distally spatulate, entirely pale rod-like process, flanked by an assymetric pair of acutely pointed, black-tipped rod-like processes, one of which is extremely short ($0.25 \times$ the length of the other), while the other is of similar length to the median process, as in Fig. 1b. *opaca* Becker

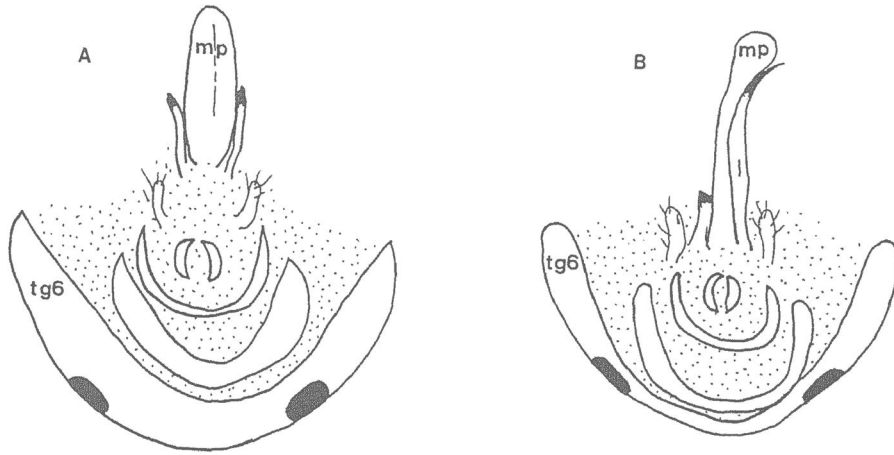


Figure 1: Externally visible components of the terminalia of males of *Sapromyza* species. A = *S. sexpunctata*; B = *S. opaca*. Membranous areas are stippled. Both figures are drawn to the same scale. mp = median process of the terminalia; tg6 = abdominal tergite 6 (see text).

- B. Probasisternum with one black bristle each side of the mid-line; the three externally-visible components of the male terminalia comprising an almost symmetrical pair of short, black-tipped, rod-like processes flanking a longer (2 × the length of the rod-like processes), median, banana-shaped process which is entirely pale-coloured, as in Fig. 1a *sexpunctata* Meigen

Admittedly, this is not much of an advance on Collin's (1948) key in respect of the females, but the basisternal character does help in the determination of specimens in alcohol, which Collin's key does not. Figure 1 has been drawn from specimens in alcohol. In dried specimens the components of the male terminalia are less visible and more difficult to interpret. I remain uncertain which terms should most appropriately be used for the visible components of the male terminalia in these *Sapromyza* species, since each potential source of nomenclature I have consulted has used different terminology. In consequence I have adopted neutral terms which imply no particular origin or homology to the features concerned.

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A MASS MIGRATION OF *EPISYRPHUS BALTEATUS* AND
EUPEODES COROLLAE ARRIVING IN THE SOUTH-WEST AND
REMARKS ON OTHER MIGRANT HOVERFLIES
(DIPTERA: SYRPHIDAE) IN IRELAND

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Large numbers of hoverflies and red admiral butterflies *Vanessa atalanta*, (L.) were noted arriving on the Irish coast by Drs J. Dorman and D. Minchin during the second week of July 1995. The flies were first observed at sea, flying landward over a wide area, up to 11 km from the coast, seaward of Courtmacsherry Bay, Co Cork. They were sufficiently numerous that dead specimens could be seen in drift lines on the sea surface. Some of the flies arriving off the sea on 14 July, at Lough Hyne (W0928), Co Cork, were captured from an aggregation comprising hundreds of individuals, settling on a wet patch on a stone jetty. Six of these proved to be *Eupeodes corollae* (Fabr.) (five ♂♂, 1 ♀), the others *Episyrphus balteatus* (Degeer) (1 ♂, 2 ♀♀). From descriptions received, an *Eristalis* species was also present, though not captured.

Reports of migrant insects observed in Ireland and published in this *Journal* have not previously included mention of hoverflies. This cannot be taken as indicating a lack of migration of these flies to Ireland, but only as a lack of recorded observations of the phenomenon. Recognition of the occurrence of long distance migration by particular hoverfly species is well established and in Europe has been noted from Scandinavia to the Mediterranean. *E. balteatus* and *E. corollae* are among the most persistently recorded migrants among European species. *E. balteatus* has even been found arriving alive on polar ice flows. The accounts of Aubert *et al.* (1976) and Gatter and Schmid (1990), provide detailed information on overland migration at selected sites in continental Europe.

Dates and locations of Irish records of at least two regularly recorded syrphid species indicate that they are almost certainly non-resident in Ireland, observations of their presence here being dependent upon influx of migrant individuals. These two species are *Scaeva pyrastris* (L.) and *Sphaerophoria scripta* (L.). Irish populations of some other species are clearly augmented by migrants from year to year, but to a rather variable extent. *Episyrphus balteatus*, *Eristalis tenax* (L.), *Eupeodes corollae* and *Syrphus ribesi* (L.) fall into this category. Among well-established migrant European syrphids are some species which have not been found in Ireland, but for which there are very occasional records from Great Britain. Notable among these are *Scaeva albomaculata* (Maquart) and *Scaeva mecogramma* (Bigot), which are not resident in Europe further north than the south of France. Whether syrphids clearly established as migrants in some parts of their range can be assumed to migrate in all parts of their range is unclear. Thus *Eupeodes lapponicus* (Zetterstedt) is distinctly migratory in central Europe, but there is no indication that the British populations of this species (which appears to be resident there) migrate, since it might otherwise be expected to have established itself in Ireland long ago. There are as yet no Irish records of this insect.