



Anthomyiidae Recording Scheme Newsletter No 15

Spring 2026

In the last Bulletin, the bumper edition No 100, Richard Lane gave a wonderfully succinct explanation of the application of DNA technology to the study of Diptera (see pages 55-57). This enables me to launch into the meat of this Newsletter without lengthy preliminaries. Please refer to his article for acronyms and jargon in what follows.

BIOSCAN Taxonomython

In September last year, several of us participated in the "Taxonomython" at the NHM in London organised to bridge some of the gaps between existing morphological identification and the DNA barcode BINs on the BOLD – see the call for participants in this on p7 of Bulletin No 99. This was most ably organised and run by Lyndall Pereira da Conceição and Remi Clare of the Wellcome Sanger Institute.

Over three days, we pored over specimens of interest retrieved from the BIOSCAN samples to validate names attached by the BOLD system or indeed to provide species names where lacking. Here we are at it!



A preliminary examination of the records so far, I found there were 6,220 specimens, representing 3.27% of the total numbers processed at the time (bioscan.tol.sanger.ac.uk/report-card). These were

contained in 113 BINs all of which 111 were identified by BOLD to genus, but only 72 to species. By the end of the workshop we had 91 named to species, including names retrieved from the BOLD database where there was a credible morphological identification. There were 8 species which appeared in more than 1 BIN, a possible indication of cryptic species or species complexes. That leaves 14 BINs not so far identified to a single species. This includes cases with multiple named species, one with 10 different *Pegomya*.

Given this wealth of information from what is an ongoing project it is impossible to give an adequate summary, but there are findings for two genera I would like to highlight.

Phorbia

Phorbia genitalis (Schnabl, 1911) has had a chequered taxonomic history, having been on the British Diptera list in the past but now regarded as a misidentification of *Phorbia fumigata* (Meigen, 1826), from the genus with machete-shaped ovipositors for egg-laying in grass stems. The latter has been recorded across a large swathe of England and Scotland with over 450 NBN Atlas records. In the BIOSCAN data there are just 2 specimens in a BIN assigned to *P. fumigata*, but 9 in a separate BIN containing *P. genitalis* specimens. These 9 records are widely spread in South-East England, Scotland and Wales.

It was Michael Ackland who originally pointed out the original misidentification of *fumigata* as *genitalis* in 1967 (EMM 103, p52). In 1993 he provided revisionary notes on the genus (*Eur. J. Entomol.* **90**, 209 – 226) which include these figures of the surstyli of *genitalis* and *fumigata*.

At the Taxonomython, we had one specimen from each BIN and the surstyli did indeed seem to differ as indicated, though the angle of view is critical. So is *P. genitalis* widely present in Britain after all? The surstyli

are so different from other British *Phorbia* that hitherto a quick glance has sufficed for the identification. I have checked my reference specimens and also those in the Liverpool Museum collection, but all have proved to be *fumigata*.

So if you have got specimens named as *Phorbia fumigata* in your collection, do please have a look at them again: let me know the results! Ackland (1993) has further figures which will help, including the lower part of the phallus which is much longer in *genitalis* than in *fumigata*. He also mentions a difference in sternite V, U-shaped in *genitalis* but V-shaped in *fumigata*, but this is not illustrated. (The paper can easily be downloaded via GoogleScholar.)

Surstyli of *P. genitalis* (left) and *P. fumigata* (right)



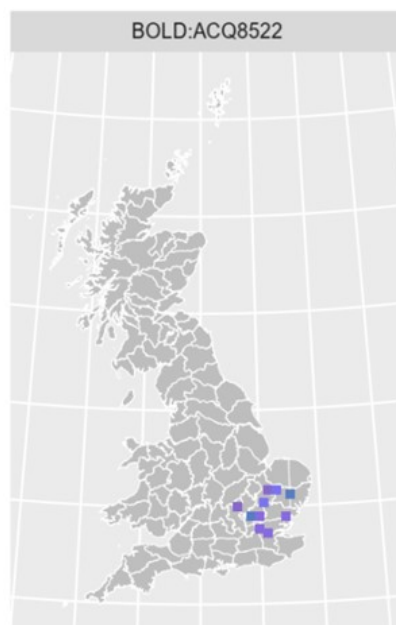
The discovery by conventional means of *Phorbia penicillaris* (Stein) new to Britain is reported in *Dipterists Digest* **32**(2)149-151.

Anthomyia

Newsletter No. 14 mentioned the expansion of numbers of British species in the *Anthomyia pluvialis* group, strongly marked light grey and black flies popular with digital photographers. Ivan Perry had identified a species new to Britain, subsequently documented in *Dipterists Digest* **31**(2), 154-156. The BIOSCAN data included an unnamed BIN BOLD:ACQ8522 which Ivan's article helped me identify as his new species *A. quinque maculata*. There were 28 records of this over a sizeable region extending from London north to Cambridgeshire – perhaps not surprising given the

numbers recorded by Ivan. *A. plurinotata* also appeared in the BIOSCAN results but with only 6 records (BOLD:AAG1708). This is the species with only two large post-sutural thoracic spots, so easily separated in photographs appearing on IRECORD.

With over 100 sites spread fairly evenly across Britain and Northern Ireland BIOSCAN is providing an unrivalled trove of Diptera distributional data gathered with a systematic protocol. As data continue to accrue over the next few years, there will be much more to discover about Anthomyiidae and of course many other Diptera families.



Phil Brighton

(helophilus@hotmail.co.uk)