Hoverfly Newsletter
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Copy for **Hoverfly Newsletter No. 76** (which is expected to be issued with the Autumn 2024 Dipterists Forum Bulletin) should be sent to me: David Iliff, **Green Willows, Station Road, Woodmancote, Cheltenham, Glos, GL52 9HN, (telephone 01242 674398), email: davidiliff@talk21.com**, to reach me by 20th June 2024. Given the size limitations it may be worthwhile to send your articles in good time to ensure that they are circulated with the bulletin, in which newsletters are restricted to a maximum of eight pages. My thanks to all contributors, and also to Martin Matthews for his meticulous proof-reading of the text.

The hoverfly illustrated at the top right of this page is a male *Microdon myrmicae*.

HOVERFLY RECORDING SCHEME UPDATE: Spring 2024

Stuart Ball, Roger Morris, Joan Childs, Ellie Rotheray and Geoff Wilkinson

As the nights rapidly draw in and temperatures drop, a few hardy hoverflies still venture out into the chill November air of 2023. Numbers can be remarkably high if one finds a sheltered spot but one must wonder what might have been? Reports from across the country have been of low numbers and limited diversity throughout the season. Some of those shortages probably arise because we had a very serious heatwave and drought in 2022. Yet, a colder spring in 2023 may also have contributed. Disentangling these effects is not going to be easy!

In some ways, however, 2023 has been a lot closer in to conditions in the 1980s with some very wet periods that may prove to be a saviour for many hoverflies hammered by last year's drought. We may only know in the coming spring.

At the time this report was drafted, we don't have a clear picture of how recording has shaped-up. Records for 2023 have yet to be absorbed into the database and of course many more have yet to be submitted. For those people who only intermittently submit records we would be very grateful to have your backlog (see later).

We do know, however, that the numbers of records directly extracted from Facebook have declined for a further year (Figure 1).

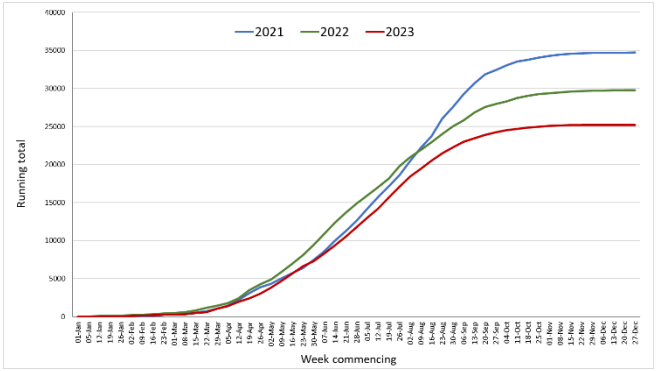


Figure 1 Record accumulation curves for data extracted from Facebook between 2021 and November 2023.

This decline was to be expected because a good many of our most active recorders now maintain their own spreadsheets or use SyrphBoard or iRecord to submit records. This shift is really helpful because it means that more effort can be spent encouraging newcomers, yet it also means that assembling an up-to-date picture of what is happening is a bit slower. On balance, that is no bad thing as it makes the data management process a bit more sustainable. Figures 2a & b shows how iRecord usage has increased in comparison with data extracted from Facebook. At the moment, usage of iNaturalist is comparatively low and

we would prefer to keep it that way because the platform has a number of characteristics that make it more complicated to process and upload data (see later).

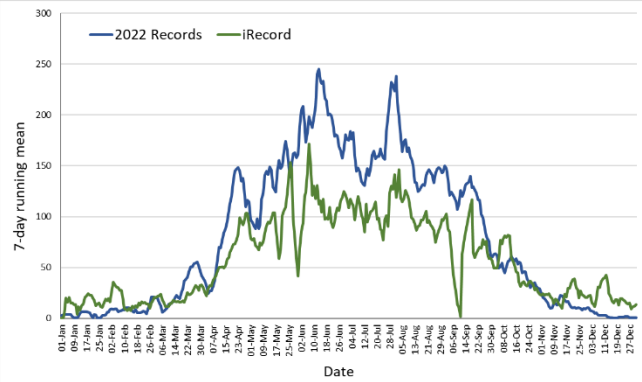


Figure 2a Numbers of daily records for Facebook extraction (blue) and iRecord verification from photos (green) in 2022

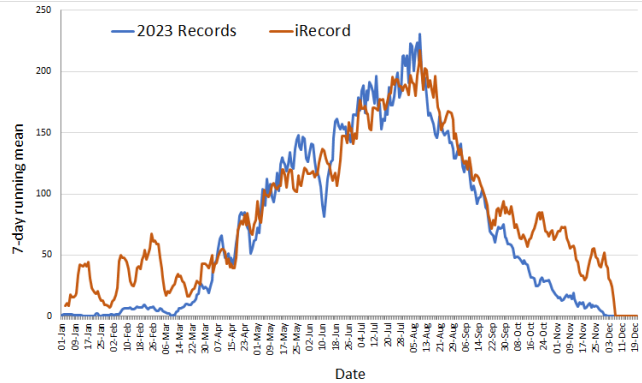


Figure 2b Numbers of daily records for Facebook extraction (blue) and iRecord verification from photos (orange) in 2023 up until 30 November.

Species status review

Natural England are keen to commission a revision of the hoverfly status review that was published in 2014. To do that, we need to get the dataset as complete as possible and therefore we are calling for all records that have yet to be submitted.

At the time of writing, we cannot be sure who will actually conduct the review, as Natural England purchasing rules are complicated by the need to provide high levels of professional indemnity insurance – something that the HRS is not set up for.

Growth in the use of online recording platforms

Over the past 3 years, on-line recording has gained in popularity (as hinted at in Figures 2a &b). Further illustration of this evolution is provided in figures 3a & b. Data for iNaturalist only cover 2022 and 2023 because our verification of data through the iRecord link to this platform started in late September 2021: it meant that there was a substantial backlog that complicates the scale of the graph for this dataset (2023 – 12,437 records; 2022 – 8,340 records; 2021 – 15,875 records). Both graphs comprise only those data accompanied by photographs.

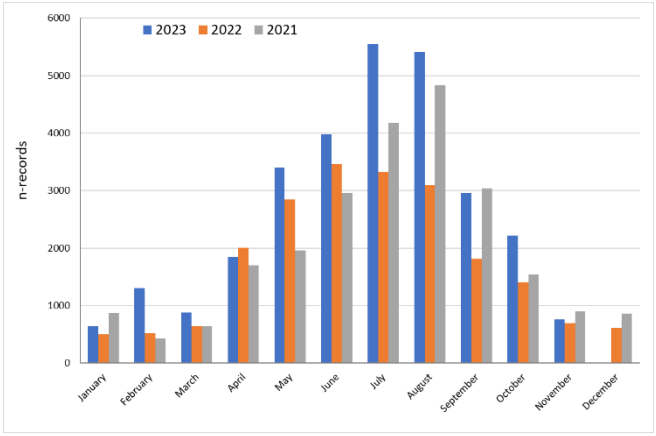


Figure 3a Numbers of records accompanied by photographs verified on iRecord between 2021 and 2023.

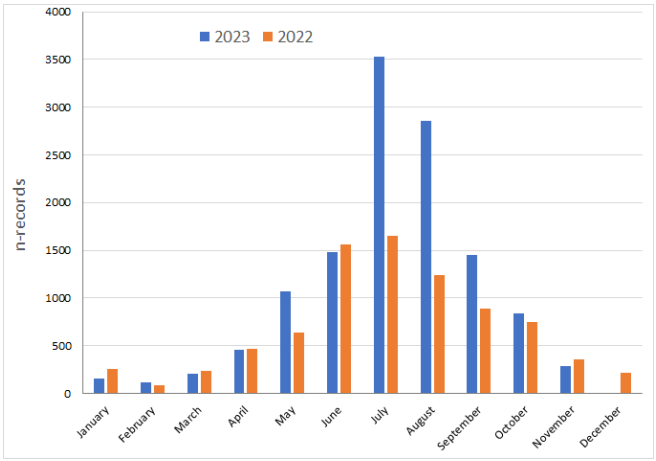


Figure 3b Numbers of iNaturalist records accompanied by photographs verified via iRecord in 2022 and 2023.

iNaturalist

Readers of the Dipterists Bulletin might be forgiven for assuming that the DF preferred recording platform is iNaturalist. It is not! DF uses iRecord for assembling data from its field meetings. From a HRS perspective, whilst we will verify and absorb iNaturalist data, it has

a number of severe limitations that make the data much more difficult to handle and interpret/use. Amongst the biggest issues we have encountered the following are especially troublesome:

- Many contributors use an alias and at least some change that alias from time-to-time. This tendency makes it very hard to make sure that data are linked to the correct name.
- Some users post on both iRecord and iNaturalist using different names so we have to try to work out who is who and clear out duplicated records.
- Somewhere between 5 & 10% of users only record at 10km level – such data are of precious little use apart from creating a dot on a map.
- About 5% of the data that comes in for verification is at 100km level only – utterly useless and a waste of the verifier's time. We reject all such records outright but it does still waste our time.
- Photographs are generally poorer resolution than on iRecord and are often much harder to interpret.
- The overall composition of the dataset is much weaker, comprising a far bigger proportion of ad-hoc single records by individuals who have limited interest in hoverflies. This means that it can take a lot of time matching names on the database for a relatively poor dataset.

There are few obvious rules that could be followed, foremost of which is that if you want to use iNaturalist, please don't add them to iRecord too – it wastes both your time and ours. Also, please stick to the same user name and ideally use your real name and not an alias.

12th International Conference on the Syrphidae

The following was circulated to previous attendees of hoverfly symposia:

The Symposium will take place in Průhonice near Prague (Czech Republic), in Průhonice Castle, with accommodation in Hotel Floret, located in the immediate vicinity of the castle. It will start on 2nd September 2024 (Monday) in the evening and will end on 7th September 2024 (Saturday) in the morning. The preliminary schedule is following:

Arrival: 2nd September 2024

Symposium: 3rd – 5th September 2024

Excursion: 6th September 2024

Departure: 7th September 2024

For more information, you can also visit our website: https://web.natur.cuni.cz/zoologie/syrphidae/. If you have any questions, feel free to contact us on Syrphidae12@gmail.com.

Participants were asked to register interest by 20 December but it seems likely that there will be scope for later bookings. Do consider attending – it would be good to have a strong GB presence.

Xanthandrus comtus males hold territory

Roger Morris

Until recently, I have very rarely encountered *Xanthandrus comtus* but in the past two years it has been a lot 'commoner' in my recording area (TQ26). Mostly, they seem to fly low down amongst or around sunlit vegetation but, in June 2023, at Wilderness Island in Sutton (TQ2865) I encountered a male holding station in a sunlit spot under trees in much the same way as male *Episyrphus balteatus*. The first time I made such an observation I was greatly surprised to discover that the stranger was *X. comtus*, but when I saw this species in the same place on several subsequent days this was clearly not a 'one-off' occurrence and was quite likely to have been the same individual.

Archive Records – can you help?

Roger Morris

Whilst working through the main entomological literature to extract flower visit records, I have encountered occasional references to entries in the journals of various regional natural history societies. I imagine that many have long-since disappeared but perhaps their publications survive. Do you know of any? If so, are they accessible, and in which case is there any benefit from working through them to extract records of species and of flower visits? I hope that eventually I will manage to work through the main journals (*Ent Rec*; *Ent Mon Mag*; *Ent Gazette*; *The Entomologist*) but it is unlikely that I will manage to do as full a literature search as is really needed to be sure that we know what has been published already. Filling in the gaps might be a useful project for those who want a quiet winter-time project.

Flower-visit records

Roger Morris

All of the interest in pollinators in recent years has led to a number of requests for HRS data on flower visitors. Obviously, we are willing to pass them on, but there are innumerable problems with the data because a lot of people will note what their recorded animal was sitting on, but not whether or not it was feeding and whether or not it was on a flower, so making sense of the records is fraught with problems. Equally, if one goes back through the literature, it is clear that very few of the reports of interesting species contain details of flower visits. Just occasionally somebody has written a brief account: the late RM Payne and Len Parmenter were obvious exponents. Clearly, there is a lot to do to improve our knowledge of what hoverflies visit which flowers. Interestingly, in species accounts in biological floras, flower visits are often very poorly covered and at least some contain obviously erroneous records! Perhaps it is time to rectify this situation? If you have a flowering plant whose identity you are sure of, what about a small project looking at its hoverfly visitors? Better still, what about recording other flies too and getting them identified so that a more complete picture of flower visiting can be assembled?

From a databasing perspective, I have used the convention at xxx to denote a flower visit because on xxx could mean sunning on the leaves of the plant as much as visiting the flowers. If one can see exactly what is going on then 'nectaring at' or 'taking pollen from' would be better. Beggars cannot be choosers however, and simply improving our general understanding would be a great step forward.

Hoverflies of Britain and North-west Europe; a photographic guide

Sander Bot & Frank van de Meutter
Bloomsbury Naturalist, 400p, paperback, ISBN 978-1-3994-0245-3 ePUB 978-1-3994-0247-7

Book Review by Roger Morris

This is a much-awaited English-language version of *Veldgids Zweefvliegen*, which was published in 2019. In addition to translation into English, coverage has been expanded to describe all of the species formally known from the British Isles and from parts of northern France, north Germany and Denmark. It does not cover Fennoscandia, which would have added a lot more species. This coverage amounts to a little less than half of the known European fauna and, therefore, it not only provides a comprehensive account of what might occur in Britain but also acts as a valuable introduction to the northern European fauna.

In many ways, this volume is a logical progression from Mark van Veen's guide that we in Britain have relied upon for the past 20 years. There is a short introductory section with photographs labelled to explain the terminology, followed by a key with illustrations on a plate on the opposite page. The keys are followed by a set of species accounts, with each species illustrated by excellent photographs from a variety of angles, based entirely upon preserved specimens. The mind boggles at the amount of work involved in compiling such a comprehensive range of photographs! Users hoping to see live-animal photographs may be disappointed but it has to be remembered that this is essentially a key with a series of relatively short species accounts. Throughout the book the typeface is a little too small for my liking and I suspect that anybody with failing eyesight will have similar reservations. This choice of presentation is, however, inevitable, given the need to pack an awful lot of information into a manageable number of pages (perfect binding has some limitations).

The species accounts are arranged in blocks of three (occasionally two) with a distribution map and phenology histogram and various photographs of relevant male and female features on the opposite page. It is a logical approach but it does mean that where the species accounts are short there can be an awful lot of blank paper. In places, the amount of blank space is substantial and might usefully have been filled with live-animal photographs. Having had some involvement in the development of the maps, one point that is worth bearing in mind is that they are interpretations using Frescalo modelling to interpret what can be quite patchy data. For example, the Irish dataset is extremely limited and the maps may or may not convey the real situation. It is likely that the size of the maps will be a source of frustration for some users, but I'm afraid they had to fit the available space. Users should also bear in mind that the phenology histograms are at best indicative because the

geographical coverage is so broad – in the case of GB and Ireland it extends to some 5 degrees of longitude and 9 degrees of latitude that can mean that flight times vary by as much as a month or perhaps more.

For me, one of the critical questions when designing a book is the expected readership. This feels like a book by specialists for specialists. My rationale stems from the way the keys are structured and illustrated. To use the key properly and efficiently, the reader needs to understand the terminology and location of a wide range of morphological characters. The novice will almost inevitably find themselves flipping back and forth to try to acquaint themselves with the features discussed. In my experience, it takes a long while for the novice to readily find their way around the wing venation and the names of the individual cells, so unless cells are named on the plates (e.g. those for Key 1 on page 25) the novice may struggle. More experienced users may also find themselves confused by some of the names: for example, we tend to refer to the 'discal cell' whereas it should strictly be referred to as the discal-medial cell (dm). Similarly, the names of the pleural plates differ from those currently in use in Stubbs & Falk. There is no escaping these challenges, one simply has to adjust to the chosen terminology, however experienced we are.

A few weeks ago I was asked by a continental specialist whether the emergence of this excellent book worried me in terms of our forthcoming revision of the WILDGuide? My view is that we are competing for a different readership and that it will mainly compete with Stubbs & Falk. I suspect that a lot of British users will find themselves using this book in conjunction with existing literature. We must remember, however, that Stubbs & Falk is now seriously dated and in need of revision or replacement, and the **WILD*Guide*** only tackles about 60% of Britain's fauna. No single volume will suffice if one wants to properly get to grips with our fauna, as each presents a somewhat different cross-section of information. This new book is arguably the closest we will get to comprehensive coverage for many years to come.

The real test of this book will come when it is used extensively. I have not had the time to do so, but whilst working through the contents I found myself reflecting on the magnification of some of the illustrations and the degree to which it is possible to interpret them. For example, I found the plates illustrating *Platycheirus* male legs too small to really convey critical characters. Similarly, I found interpretation of *Sphaerophoria* male genital capsules very difficult. These aspects also highlight the challenges that the novice will face; certainly anybody like me with failing eyesight will be reaching for the magnifying glass!

In a departure from other books on hoverflies, this one provides 'common names' and gives precedence to these names. On this, I am not a fan! It seems to me that the priority should have been given to the scientific binomial with the contrived colloquial name in a smaller font. I for one will not be attempting to use these convoluted and meaningless names that will only serve to confuse still further: for decades *Rhingia campestris* has had the understandable colloquial name the Heineken Fly (reaches parts other flies cannot reach) and now it is the Common Snout Fly – not only is the new name longer, it dispenses with what was actually a useful introductory name that could be used in conversations with enthusiast or inquiring bystander alike.

Overall, this is a valuable addition to the literature and Frank & Sander have produced a book that will doubtless become the 'go-to' resource for those hoverfly enthusiasts that want a bit more than a basic beginners guide. It should be on the bookshelves of all serious hoverfly enthusiasts, especially as it is currently marketed by Bloomsbury at £22.05 (discounted from £31.50). In Britain and Ireland we tend to take a very limited interest in the wider European fauna but perhaps that will change as this book might stimulate some British hoverfly enthusiasts to take more interest in Europe.

The Chrysomelid diet of the larvae of *Parasyrphus nigritarsis*

Stephen Suttill

Parasyrphus nigritarsis is unusual among UK syrphines because its larvae don't eat aphids but instead hunt the eggs, larvae and pupae of leaf beetles (Chrysomelidae) that live on alder, willow, poplar and docks. Although described as "Nationally Scarce", and scarcely seen as adult flies, the eggs and larvae are regularly found on dock leaves on my local patch in

the Tame valley on the Pennine fringe of Greater Manchester.

Since the Spring of 2021 I have attempted to rear *nigritarsis* from eggs found on Broad-leaved Dock (*Rumex obtusifolius*). The hoverfly eggs were laid on batches of Green Dock Beetle (*Gastrophysa viridula*) eggs and I provided regular additional supplies of eggs and larvae of the same species. So far, I have managed to rear the *nigritarsis* larvae to development diapause but none have survived the winter.

On 13 May 2023 I collected two Broad-leaved Dock leaves that hosted four Green Dock Beetle egg batches together with at least eleven eggs of *nigritarsis* nestled among them. These were provided with freshly-gathered eggs and larvae of their mother's chosen host species. By 22 May all the *nigritarsis* eggs had hatched and, despite their usual cannibalism, I still had eight *nigritarsis* larvae by 26 May.

On 26 May I noted that the Alder Leaf Beetle (*Agelastica alni*) had started to lay eggs and I wondered whether my *nigritarsis* larvae would eat these as enthusiastically as the eggs from docks. I posed this question on the UK Hoverflies Larval Group Facebook page, but no-one seemed to have put this to the test. So, on 27 May, a batch of four *nigritarsis* larva had their diet changed from eggs of Green Dock Beetle (*Gastrophysa viridula*) to eggs of Alder Leaf Beetle (*Agelastica alni*). A control batch of four *nigritarsis* larvae from the same site continued their usual diet.

After seven days some of the *A. alni* eggs had been eaten but one larva had died, and the others were not showing much interest in the food provided. By 19 June all the *nigritarsis* on the *A. alni* diet were dead. The last one, in an ironic role reversal, was now being eaten by the beetle larvae. They could all have died of disease but I still have healthy *nigritarsis* larvae that were kept on the same leaf beetle diet which have successfully reached diapause, and which came from the same plant as the dead ones.

A possible further investigation would be for someone to find *nigritarsis* laid on Alder and feed them on Dock Beetle eggs. In my area *A. alni* don't start laying eggs until five weeks after *G.viridula* but maybe there is a greater coincidence of laying times in other areas.

Thanks to Geoff Wilkinson for his comments on this note. Thanks also to Lief Bloss Carstensen, Teresa Galbraith, Nicola Garnham and others who have shared their experiences of rearing *P. nigritarsis* and, of course, Ken Gartside for introducing me to this fascinating species.

P. nigritarsis larva with Alder Leaf Beetle eggs

P. nigritarsis larva with Green Dock Beetle eggs (photos; Stephen Suttill)

Eristalinus aeneus recorded in Gloucestershire: postscript

David Iliff

In **Hoverfly Newsletter No. 74** I reported the first Gloucestershire record of *Eristalinus aeneus* when John Widgery found a male in his garden on 3 July 2023. It was doubly surprising; firstly that the species had not been found in the county before and secondly that this initial record should be well away from the coast (where this species is predominantly found).

On 25 August (after the last newsletter had gone to press) John had another *Eristalinus aeneus* in his garden, this time a female.

Caliprobola speciosa in the New Forest

Andy Murdock

Caliprobola speciosa is a large, distinctive, saproxylic species whose larvae develop in rotten stumps of ancient trees. It is on the western edge of its range, confined to just the New Forest and Windsor Forest where its larvae mostly use Beech trees.

Caliprobola speciosa (male). Photo: Russel Wynn

Ball and Morris (2014) noted the lack of records in the New Forest and discussed the current status of *Caliprobola speciosa* as, anecdotally, it was suspected to have declined in recent years. With only around 150 records in the HRS database and NBN combined, the status of *Caliprobola speciosa* remained uncertain. It is more widespread in continental Europe and is listed as of 'Least concern' on the European Red List of Endangered Species (Pennards, 2021). Again, the need for further studies was highlighted.

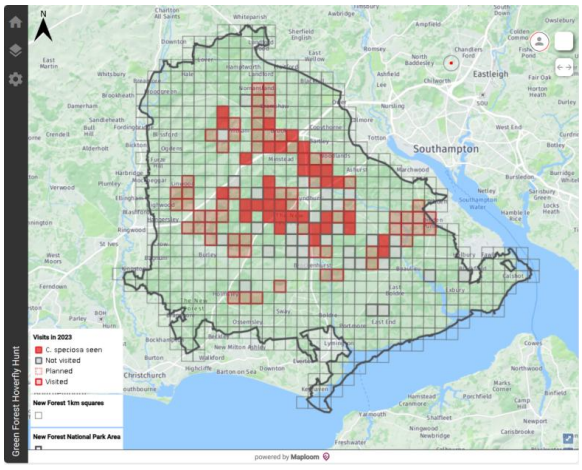
The 'Green Forest Hoverfly Hunt' began in the New Forest in 2022 but had little success; generating just a single record (albeit at a new site) in the ca. 6 week survey window. Only four other sightings were recorded in that year.

In 2023, a team of 21 volunteers set out again to look for *Caliprobola speciosa*. We adopted a targeted approach guided by an online mapping system (Maploom) which contained a number of habitat datasets (ancient woodland areas, canopy density etc) and information on specific 'target' trees gathered from the 2022 surveys. Precise GPS coordinates and photos of the trees were available to surveyors on a mobile phone map along with surveyor location.

Each 1km grid square was given a suitability score for *Caliprobola speciosa* based on previous records at the site or nearby, presence of target trees identified, presence of ancient woodland, dead/decaying trees from the Woodland Trust's Ancient Tree Inventory and degree of canopy openness. Surveyors undertook 'vigils' at target trees and searched 1km squares looking for new trees and hoverflies. Squares visited were 'ticked off' and any sightings and other information noted.

Typical *Caliprobola speciosa* tree stump. Photo: Tony Short

In total we generated 101 records of *Caliprobola speciosa* plus seven from outside the team, one of which was from the other stronghold site, Windsor Forest. Based on the maximum count at any one location, we estimate we found 94 individuals (82 males and 7 females, plus 5 adults of undetermined gender). Nearly all sightings were at Beech stumps with only a single at Oak and one flower visit record at Hawthorn.



2023 *Caliprobola speciosa* New Forest distribution (bold red squares)

We found *Caliprobola speciosa* in 30 new 1km squares and the new distribution map shows two distinct bands (bold red squares) of almost continuous distribution across the New Forest. Perhaps unsurprisingly, this follows closely the distribution of the ancient woodland areas. In addition, we generated over 400 records of 40 other hoverfly species, including the rare *Pocota personata* and nationally scarce *Myolepta dubia*, *Mallota cimbiciformis and Psilota anthracina*.

Despite the success of the 2023 surveys, many questions and uncertainties remain over the future of *Caliprobola speciosa* in the UK. The results suggest it is probably doing better than we thought and is under-recorded. However, we need to ensure 2023 was not a one-off (it was ideal weather in May) and whether similar numbers occur in other years.

Recent storms provide a ready supply of dead wood for the near future but the replacement of Beech trees in the New Forest is hindered by grazing pressures. Climate change and increased frequency and intensity of droughts also pose a threat to Beech wood habitats with a predicted northwards shift in extent in the next 150 years (Martinez *et al*, 2022). There is no obvious place with sufficient numbers of ancient beech trees for *Caliprobola speciosa* to shift northwards to and it does not seem to use oak much in the UK. Therefore, more information is needed on the species and habitat requirements to support future conservation. Forestry England have offered funding to support the ongoing Dipterists Forum affiliated surveys in 2024 including: observation, habitat characterisation, mark-release-recapture and inputs to genetic sequencing.

Caliprobola speciosa: wasp-like in flight Photo: Paul Stevens

If you wish to take part in the 2024 surveys, please contact Andy Murdock, andy@maploom.com

For further information, please see the project website: https://caliprobola.maploom.com/info

References:

Ball, S.G. & Morris, R.K.A. 2014. A review of the scarce and threatened flies of Great Britain. Part 6: Syrphidae. *Species Status No. 9*, JNCC, Peterborough, ISSN 1473-0154.

Martinez del Castillo, E., Zang, C.S., Buras, A. et al. Climate-change-driven growth decline of European beech forests. *Commun. Biol*. 5, 163 (2022). https://doi.org/10.1038/s42003-022-03107-3.

Pennards, G.W.A., Popov, G. & Vujić, A. 2021. *Caliprobola speciosa*. The IUCN Red List of Threatened Species 2021: e.T149170015A149170026. https://dx.doi.org/10.2305/IUCN.UK.2021-2.RLTS.T149170015A149170026.en