# Newsletter No. 19
# Autumn 2014

## Editorial

**Martin Drake**

This issue covers only dolichopodid issues as Adrian Plant has a desk to run whereas I am, on paper, a nearly retired gentleman of leisure. Roy Crossley has contributed two items; more from others would be welcome in future.

## *Tachytrechus ripicola* Loew lives on

**Martin Drake**

The most exciting recent record is a single female of *T. ripicola* collected by Rob Wolton from Studland, Dorset (SZ037861, 17 May 2014) next to a small lagoon at the sandy northern tip of the area. It was recorded at Studland by Verrall and Yerbury in 1906 and 1912. The last British record was in 1972 at Oxwich on Gower. This find prompted me to write a new key to females of the genus as there are easier features than used in Fonseca's Handbook (see last page of this newsletter).

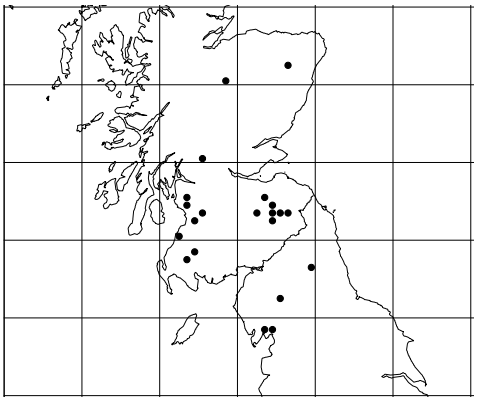
## *Micropygus vagans* Parent – our spreading non-native dolichopodid

**Martin Drake**

This small species is a native of New Zealand. It was first found in Britain in 1995 on the Dipterists Forum field meeting in Ayrshire (Chandler, 1999). It appears to thrive in damp woods or beside water (streams, ponds) in shady places, with only a few records from open or dry habitats. As befits a non-native, it is not bothered about the presence of other non-native plants – sycamore and Rhododendron are mentioned in records, although the sites are probably generally rather good just because that's what attracts dipterists. *Micropygus* is now widespread in Scotland, reaching into Highland, and now even further south than recorded by Chandler & Smith (2005) who found it north Cumbria. On last summer's field meeting, it was frequent in Roudsea Wood and also found at Whitbarrow. The concentration of records in southern Scotland suggests that is where it originated. When it is found, it is often quite numerous, masquerading as a *Campsicnemus*, but distinguished by the small pale spot on the cross-vein.

Chandler, P.J. 1999. *Micropygus vagans* Parent (Diptera: Dolichopodidae), a New Zealand fly in the British Isles. *British Journal of Entomology and Natural History* **12**, 215-220.

Chandler, P.J. & Smith, J.E. 2005. *Micropygus vagans* (Parent) (Diptera, Dolichopodidae) new to England. *Dipterists Digest (Second Series)* **12**, 172.



*Micropygus vagans*

## Dolichopodids of bogs and heaths

**Martin Drake**

In Newsletter No 18, I discussed coastal dolichopodids. Now it's the turn of those associated with acid mire and heath. Like coastal species, these form a discrete assemblage whose commoner members one can be sure to find on a good bog or wet heath. Quite what drives this assemblage is unclear. It is easier to understand why bog plants have a physiology adapted to these stringent conditions as they have to sup on the stuff, but it is not obvious how a predatory insect larva taxonomically closely related to very common widespread species should be restricted to these places.

A number of common acidophilic plants have a gap in their distribution in a band from The Wash to Dorset, seen in the characteristic plants of bogs and heaths such as heather, ling and bilberry but also in other less obviously acid-associated species such as broom, rowan, sessile oak and foxglove. The dolichopodid equivalents of these widespread species that avoid the Wash-Dorset band are *Dolichopus atratus*, *D. atripes*, *D. vitripennis* and *Rhaphium longicorne*. Apart from *R. longicorne*, they are probably more tolerant of a wider range of pH as they are sometimes found in fens but it is on bogs and wet heaths where you are guaranteed to find them, and especially wet heath in the case of *D. vitripennis*. Interestingly, that empty Wash-to-Dorset wedge occurs in the distributions of *D. lepidus* and *R. riparium* but in these cases it has nothing to do with an affinity for bogs or heaths.

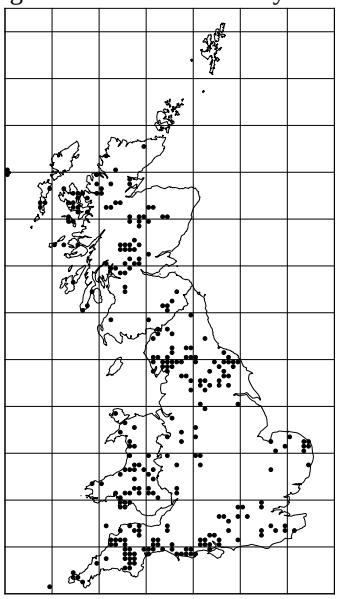
*Campsicnemus alpinus* and *C. compeditus* are northern and western species found most often at bog-pools. They are particularly scarce in southern England – both occur in the Dorset-Hampshire heathland and in the far SW, and, just to prove a point, *C. compeditus* is on Dersingham Bog in Norfolk, which just about the only real bog in eastern England (the dot on the corner of The Wash). The classic bog-pool species have to be *Hydrophorus* which sit on the water, although they also collected from flushes. *H. albiceps*, *H. nebulosus* and *H rufibarbis* are the three associated with acid pools and seepages, the last being a decidedly upland Scottish species.

*Dolichopus rupestris* has a reputation for being an upland species but the records suggest that this is a simplification. While it is the species to expect on high ground, long after most other dolichopodids have given up, it occurs near sea level at moors and heaths in the Humber basin, and there are some possibly dubious records from south Cumbrian raised bogs in the Morecombe Bay area. If these records are indeed correct, they suggest that *D. rupestris* is just another 'bog & wet heath' species that doesn't like it too warm.

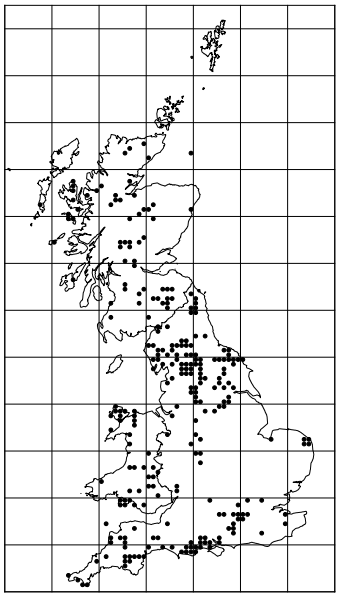
*Chrysotus obscuripes* and *Syntormon zelleri* are also at boggy seepages and *C. obscuripes* perhaps in more densely vegetated places such as *Molinia* (purple moor-grass) mires than occupied by the two *Campsicnemus* species. Where the vegetation is particularly sparse, for example bare peat or shallow trickles over stones, *Tachytrechus consobrinus* is often a conspicuous dolichopodid.

*Gymnopternus angustifrons* is probably losing its claim to be a bog species, for instance, Rob Wolton finds it to be common in wet woodland in central Devon. But it is still most likely to be found in bogs and wet heaths.

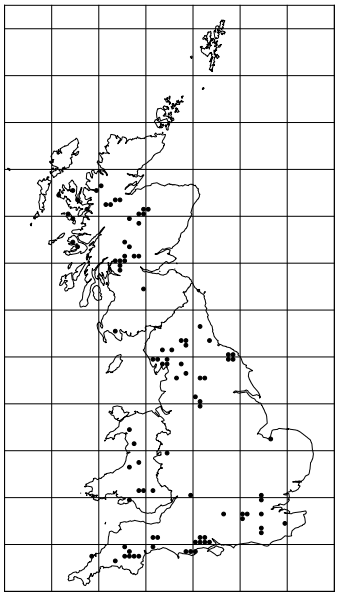
The maps were produced using MapMate which cannot differentiate dates of records. Maps appear in the order in which the species are discussed. I think some of the records are incorrect but have no quick way of checking them.



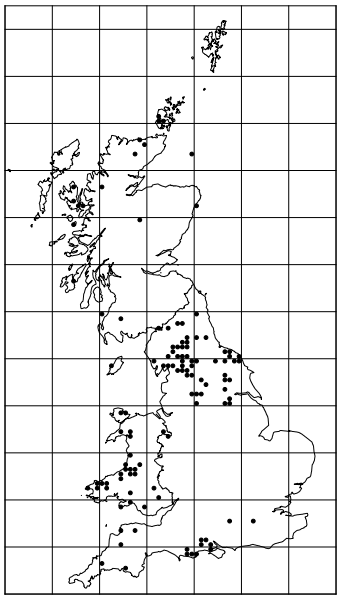
*Dolichopus atratus*



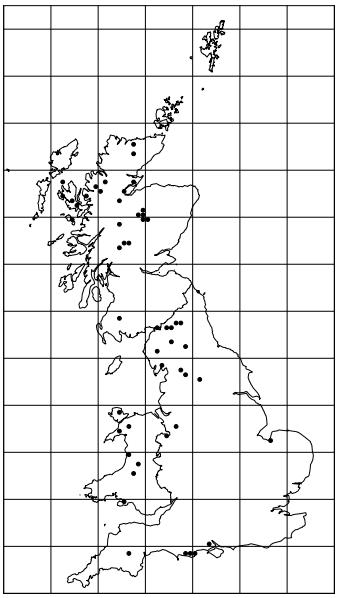
*Dolichopus vitripennis*



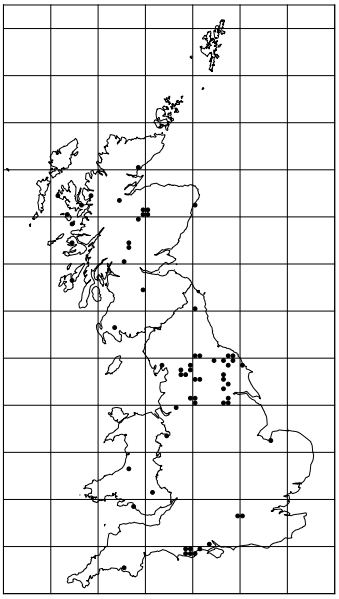
*Rhaphium longicorne*



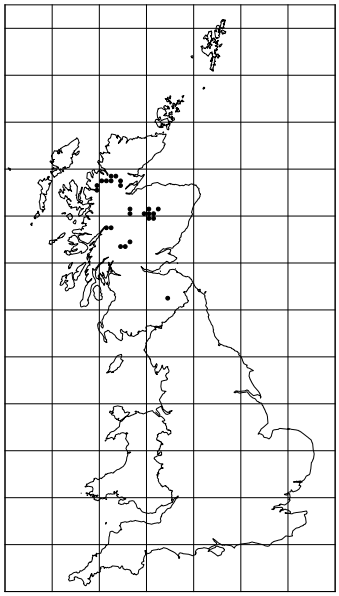
*Campsicnemus alpinus*



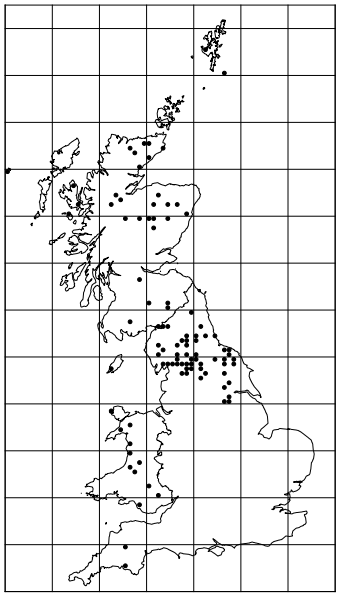
*Campsicnemus compeditus*



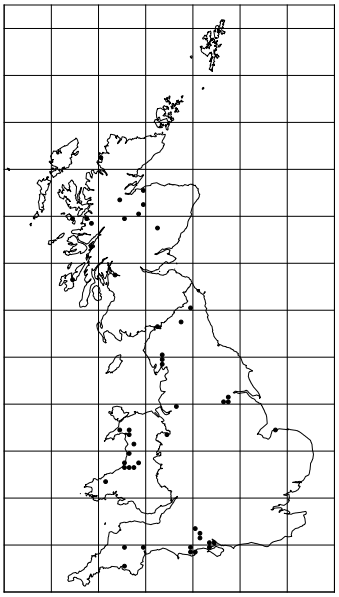
*Hydrophorus nebulosus*



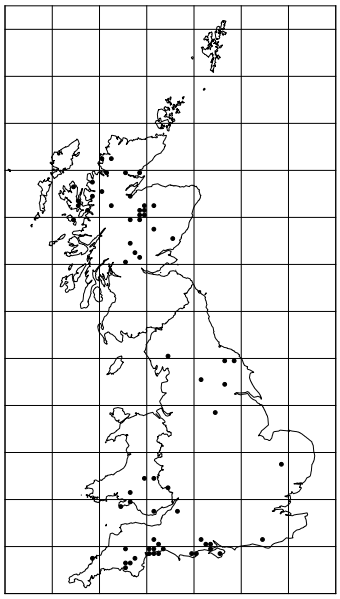
*Hydrophorus rufibarbis*



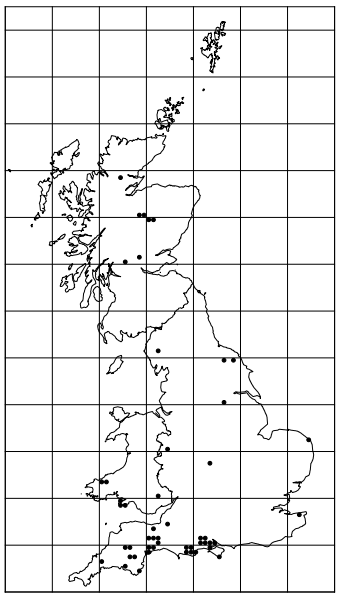
*Dolichopus rupestris*



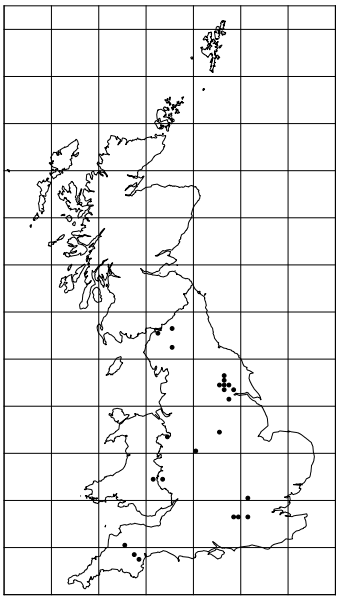
*Chrysotus obscuripes*



*Syntormon zelleri*



*Tachytrechus consobrinus*



*Gymnopternus angustifrons*

## Update on dolichopodid records

**Martin Drake**

I moved a large number of records to the E&D MapMate database after gathering records from many sources for the review of the status of Dolichopodidae (E&D Newsletter 18, p4). Quite how many new records were gathered is hard to judge since there are lots of duplicates that I cannot find the energy to completely eliminate. Among the useful datasets were those of Stephen Falk that he used for his original review of the status of Diptera (Falk, 1991) and which I digitised from his cards, and of the Dipterists Forum field meetings which Roger Morris has been assiduously collating. I am most grateful to Bjorn Beckman at BRC and to Roy Crossley who arranged for his own data and that of the Yorkshire Naturalists Union to be digitised. Consequently, many species now have a greater concentration of dots in Yorkshire than elsewhere in Britain. I had downloaded some data from the NBN but one cannot always get more than the basic information (hectad, date) and where these records did not fit with the patterns of distribution that emerged, I have omitted them from the D&E dataset. I may have thrown out the odd baby with the bathwater, but there are enough errors from supposedly reputable recorders (like me) without adding distortion from unattributable records.

## Yorkshire dolichopodids - historical notes

**Roy Crossley**

roycrossley@btinternet.com

In 2012 Andrew Grayson drew to my attention what appears to be an anomaly in the RES dolichopodid 'Handbook' by Fonseca. Two species, *Thinophilus flavipalpis* and *Aphrosylus raptor* are reportedly recorded from 'Yorkshire', yet these two species are not on Andrew's recent draft list of Yorkshire Diptera.

I discovered that in the Cheetham cards, which form the basis of the YNU Diptera recording system, both species are represented but the records are not from Yorkshire localities.

*A. raptor* is recorded by Cheetham from 'Killy Begs' August 1931, and *T. flavipalpis* from 'H.Hd' 13/7/23.

In a telephone conversation with a great niece of Chris Cheetham's in 2012, I learned that 'Uncle Christie', as he was known in the family, had camping holidays at Killy Begs which is on the coast of Co. Donegal, in the north-west of the Irish Republic, and also at Humphrey Head, north of Grange-over-Sands in Cumbria. There are numerous records from these two localities scattered about the Cheetham cards.

It is likely that by some means which we shall probably never know these sites were mistaken for Yorkshire locations when the distribution details were being compiled for the Fonseca 'Handbook'. Perhaps we should leave it at that!

The specimens from Killy Begs and Humphrey Head are in the collections of Leeds City Museum and I am obliged to Clare Brown for kindly making arrangements for me to view the dolichopodid section, which I had revised in 1991 ('Cheetham and Kowarz Dolichopids at Leeds City Museum', *Dipterists Digest* no. 12, 30-31. 1992).

There is a single *Aphrosylus celtiber* (not *A. raptor*) from Killy Begs dated August 1931 – and it is interesting to note that the record card was originally headed '*celtiber*' and then subsequently altered to '*raptor*'. (Possibly the '*raptor*' record is an error). There are a further six *A. celtiber* specimens from the same site dated August 1932 but these are not recorded on the card

There is a single female *Thinophilus flavipalpis* from Humphrey Head dated 13/7/23 in the Leeds collection, and, interestingly, there is a single female *T. ruficornis* from the same site dated August, 1938, but for which I can find no Cheetham card.

**Footnote**

C.A. ('Chris') Cheetham was a dominant figure in Yorkshire natural history for more than thirty years until his death in 1954. In common with many of his generation he was a competent amateur with wide interests: botanist, dipterist, bryologist, and General Secretary of the Yorkshire Naturalists' Union for many years.

A bachelor, in his mid fifties he retired from business and lived in a cottage in the idyllic Yorkshire Dales village of Austwick. There his singing talents were put to good use and he was concurrently choir master of the village Anglican Church choir where he led the singing at morning services and at the Methodist chapel where he attended the evening services.

An enthusiastic cyclist he was to be seen cycling round the village with his ninety-years-old mother riding tandem, and it was reported that he owned neither a suit nor a pair of trousers. Rather, his characteristic dress was shorts in summer and knickerbockers in winter. My personal recollection of seeing him the year before he died (and before I took up entomology) is that he was wearing said knickerbockers at the YNU December annual general meeting in Halifax.

In the summer of 2012 an article concerning Chris Cheetham appeared in the *Yorkshire Post*. One of his family descendants had re-furbished his old cottage as a holiday home and it is now available for public let when the family is not using it. It was through the contact details that I was able to have a very informative telephone conversation with a great niece (Mrs Barbara Farrer of Leeds). She told me of the wonderful holidays the children had with 'Uncle Christie' and how he had instilled in them a love of nature, and particularly of the wild flowers of the limestone dales, which had lasted a lifetime, and which in turn had been passed on to the younger generations of the family. In return I was able to tell her that after nearly sixty years her Great Uncle's data cards are still regarded as a valuable resource, not only in Yorkshire, but more widely.

## *Sympycnus desoutteri* Parent– a long-standing problem in need of resolution

**Roy Crossley**

roycrossley@btinternet.com

In *Empid and Dolichopodid Study Group Newsheet* No 3 (March, 1987), Jonathan Cole contributed a very useful and lengthy note entitled 'Dolichopodidae Difficulties'. Amongst the species mentioned was *Sympycnus desoutteri*, in the following terms:-

'This species has two distinct forms in Britain which probably deserve specific rank. The males of one form have hind tarsi with the third segment as in fig. 207 in the Handbook (Fonseca, 1978), the other form has two very long hairs postero-basally on this segment and the apical four fifths of the segment is cut away posteriorly. The latter form has a slightly larger third antennal segment, and these differences are correlated with small but distinct differences in male genitalia. The two forms are widespread with the latter perhaps a little less common. Mr Fonseca was aware of these forms and considered them both to be *desoutteri* but he did not examine genitalia. The continental species *annulipes* (Meigen) has similar long hairs on the hind tarsi but the third antennal segment is clearly longer (about 1½ times the width). Females associated with the two forms have not been distinguished.'

A further note on *Sympycnus* by Paul Beuk appeared in *E & D Newsheet* No.9 Autumn 1990 entitled 'Synonymy and Variability in *Sympycnus'*. Dr Beuk drew attention to a 1981 paper by H.J.G. Meuffels considering the relationship between *S. desoutteri* and the very similar non-British *S. annulipes*. In this study the only character considered was the length and shape of the third antennal segment. This was found to be highly variable and unreliable in separating the two species, and because of many intermediates Mr Meuffels concluded the two species to be synonymous. As *S. pulicarius* (Fallén, 1823) is an older synonym of both names, both 'species' should be named '*pulicarius*'. Unfortunately, Meuffels did not appear to have considered the conspicuous ciliation and shape of the third segment of the hind tarsi to which Jon drew attention in his 1987 note.

In comments appended to Paul Beuk's note, Jonathan Cole gave details of his investigations since 1987 and he had come to the conclusion that because of variations in the two types he had identified he no longer considered them to be good species, and he accepted the validity of *pulicarius* as the correct name. There the matter seems to have rested.

However, whilst preparing this note in the spring of 2013 with the intention of resurrecting the issue, Dr Marc Pollet

told me that he was planning to undertake a revision of the *Sympycnus* '*desoutteri/annulipes/pulicarius'* complex and I am now informed that he hopes to complete the task in the second half of this year. Marc would welcome material in order to incorporate distributional data in his paper and anyone who is able to submit specimens to him is asked to send them to:-

Dr Marc Pollet, Leader Research Group Species Diversity (SPECDIV), Research Institute for Nature and Forest (INBO), Kliniekstraat 25, B-1070 Brussels, Belgium. (e-mail: mpollet.doli@gmail.com)

I am obliged to Jon Cole for very helpful information and advice in compiling the first draft of this note.

References

Assis-Fonseca, E.C.M. 1978. Diptera Orthorrhapha Brachycera. Dolichopodidae. *Handbooks for the Identification of British Insects* **9**(5), 1-90.

Meuffels, H.J.G., 1981 Status of *Sympycnus annulipes* (Meigen, 1824) and *S.desoutteri*, Parent,1925 Diptera, Dolichopodidae). *Entomologische Berichten, Amsterdam*. **41**, 54-55.

## The advantages of freeze killing.

**Roy Crossley**

Ever since starting to collect insects in the mid 1950s I have killed specimens with ethyl acetate, and subsequently retained them in tubes of crushed laurel to relax them prior to mounting. This long-established technique has worked well over the years, but empidoid specimens generally have tended to suffer from collapsed eyes as they dried out after pinning, and although not catastrophic it has meant that head characters are often difficult to see clearly.

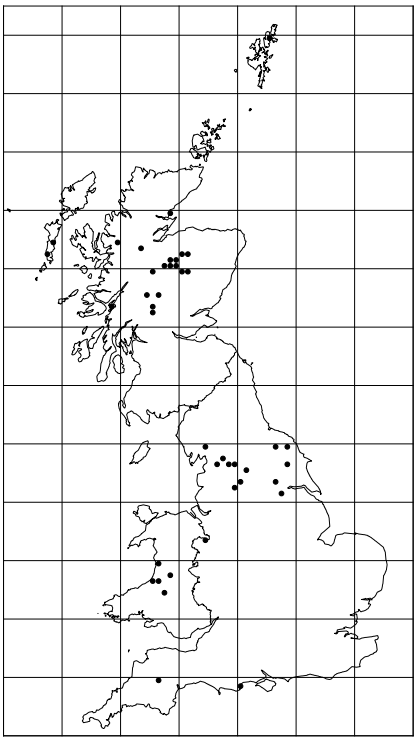
In the summer of 2013, after discussing this problem with several colleagues, I started to freeze-kill my captures and retain them in the freezer until I have time to pin them. I have been pleased with the results, for the vast majority of dolichopodids (which is what I mostly collect these days), retain the complete form of the eyes after drying, and often the legs are extended downwards and the wings are usually held upright above the body. All that is necessary in most cases is to put a pin through the thorax. Very little further setting is needed.

I commend this method to empid and dolichopodid enthusiasts.

## *Hydrophorus albiceps* Frey – not a northern species

Reading the distribution of sites where Fonseca (1978) knew this species to occur, one would think that it was a Scottish species with a couple of outliers in England (Yorkshire and Salop). This is misleading. It is undoubtedly far more frequent in the north (the map even shows one dot on Yell, Shetland), but its distribution is likely to be dictated by a preference for perhaps peat or acid substrates rather than just climate.

Rob Wolton recorded it at acid valley mire on northern Dartmoor in Devon in 2012, and I found it at Studland Heath in Dorset at an acid mire seepage close to sea level in 2006.



*Hydrophorus albiceps*

## Acknowledgements

Many thanks for dolichopodid records in the last 2-3 years to Andrew Halstead, Brian Levy, Del Smith, Howard Bentley, John Hunnisett, John Showers, Jon Webb, Laurence Clemons, Mark Mitchell, Mike Pugh, Murdo Macdonald, Nigel Jones, Phil Brighton, Richard Dixon, Rob Wolton, Roy Crossley and Steve Woodward.

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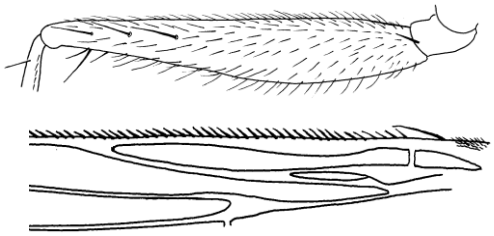
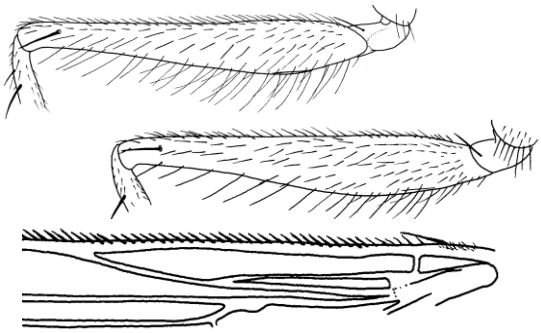
## Key to *Tachytrechus* females

**Martin Drake**

1 Mid femur with short ventral hairs, no longer than about half greatest depth of femur. 3-4 ad preapical setae on mid femur. Costa at base between h and $r_1$ conspicuously thickened, obviously much wider than cell membrane behind the bulge. Front tibia darkened towards tip. Hind metatarsus dark. 2

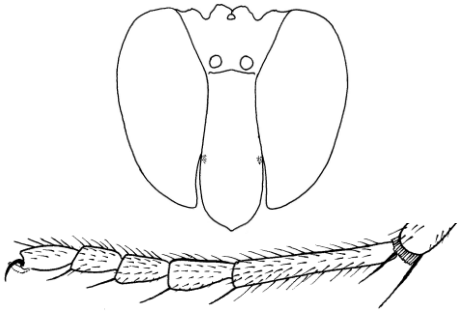


- Mid femur with long ventral hairs, especially antero-ventrals, about equal to or longer than greatest depth of femur. 1 ad preapical seta on mid femur. Costa at base not markedly thick, no wider (usually narrower) than cell membrane behind thickest section. Front tibia almost entirely yellow. Hind metatarsus mainly or entirely yellow. 3



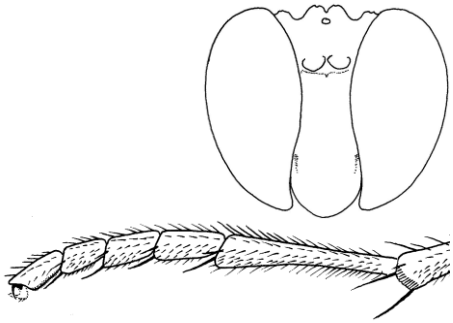
2 Face brown-dusted. Clypeus with semi-circular and slightly pointed lower margin ending below bottom of eyes. First and second antennal segments entirely clear yellow. Front metatarsus hardly wider at tip than at base, and slightly shorter than remaining segments 2-5.

***consobrinus* (Haliday in Walker)**



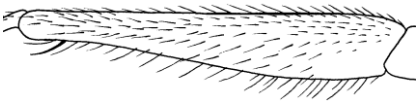
- Face silver-dusted. Clypeus with gently rounded margin level with bottom of eyes. First antennal segment mainly black, second segment partly darkish yellow. Front metatarsus slightly wider at tip than at base (sometimes resembling that of males) and as long as remaining segments 2-5.

***notatus* (Stannius)**



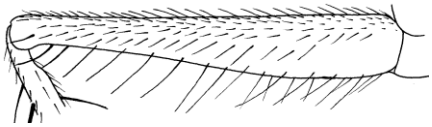
3 Front femur with short ventral hairs which are half as long as deepest part of femur. Mid femur yellow in at least apical half. ac setae short, each seta not reaching as far as two adjacent setae. Hind femur black with about one fifth of tip yellow.

***insignis* (Stannius)**



- Front femur with long ventral hairs which are almost as long as deepest part of femur. Mid femur mainly black, yellow in only apical third. ac setae long, each reaching well beyond two adjacent setae. Hind femur black with the extreme tip yellow.

***ripicola* Loew**



Figures by M. Drake