

Newsletter No. 18

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Editorial

Adrian Plant & Martin Drake

It is often difficult finding ecological information on species that are neither common nor rare – ‘local’ species. Common ones are usually relatively uninteresting as they are often tolerant of a wide range of conditions so there is not much one can say about them. Rare species get more attention as they appear in reviews of scarce and threatened species. This is where recordings schemes play a useful part, and we will produce a series in the next Newsletters showing the distribution of some of these ‘in-between’ species. To give it more focus, the dolichopodid maps will be based on suites of species with an obvious theme. This time, it’s coastal dolichopodids.

Coastal Dolichopodids

My maps are crude because I have dumped everything I could scrounge into Excel since there is a lot more out there than in the E&D recordings scheme’s MapMate database, and what I have produced are Excel scatter graphs with the background to Britain formed of every hectad with land (courtesy of BRC’s website). This collation of records originated from an on-going contract for Natural England to review the statuses of dolichopodids. One day, it will all be entered into the scheme’s database. There are unchecked records here, a few dots in the sea and some known wrong 100km square which I have not corrected as the Excel file is temporary. So these maps may give only a broad-brush picture of distributions.

I have not yet tapped all the data sources used in previous reviews so some ‘known’ dots may be missing. I apologise for any records submitted to the E&D Scheme that are missing in this analysis.

About 27 dolichopodids are almost or entirely restricted to coastal habitat in Britain:

Aphrosylus celtiber, ferox, mitis, raptor
Campsicnemus armatus, magius
Dolichopus acuticornis, caligatus, clavipes, diadema,
notatus, sabinus, signifer, strigipes
Hercostomus nigriplantis
Hydrophorus oceanus
Machaerium maritime
Muscidideicus praetextatus
Orthoceratium lacustre
Poecilobothrus ducalis, majesticus, principalis
Sciapus laetus

Syntormon mikii

Tachytrechus insignis (?)

Thinophilus flavipalpis, ruficornis

Surprisingly many of these ‘coastal’ species occur in land-locked mid-European countries – Austria, Czech Republic, Hungary – suggesting that they are not obligate halophils but perhaps need a clement climate.

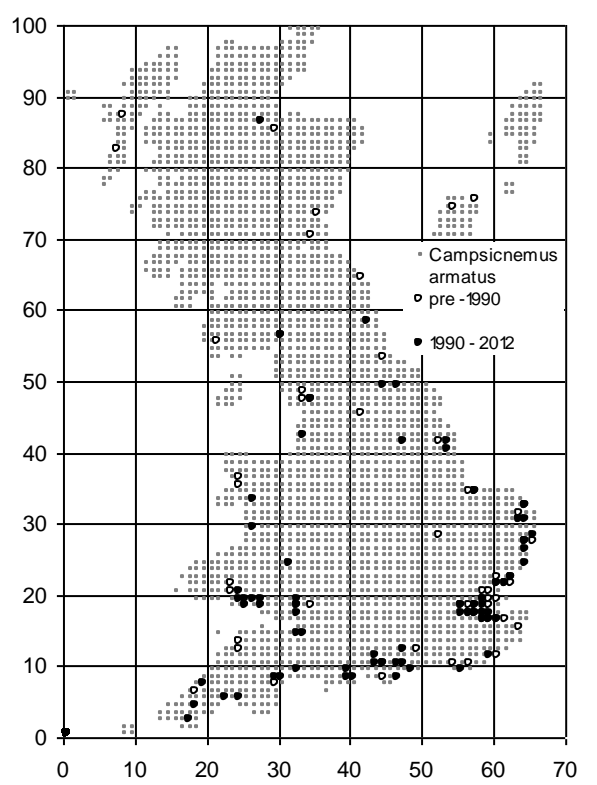
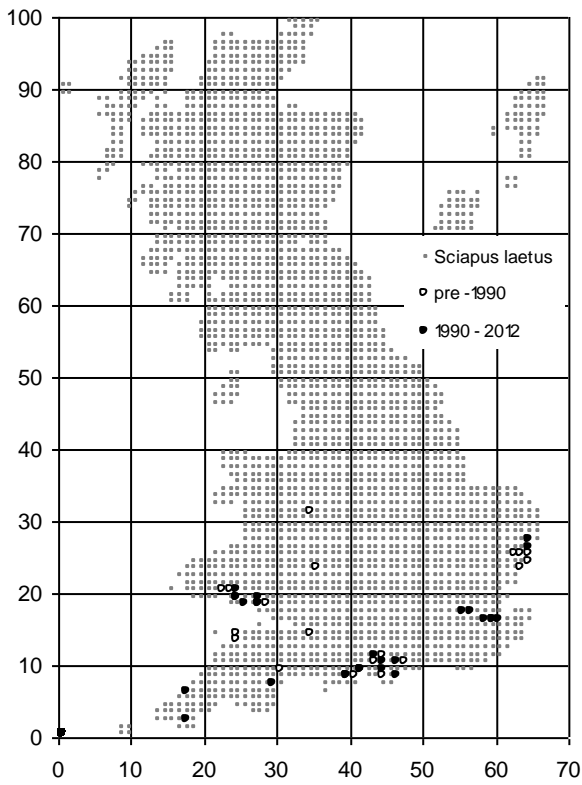
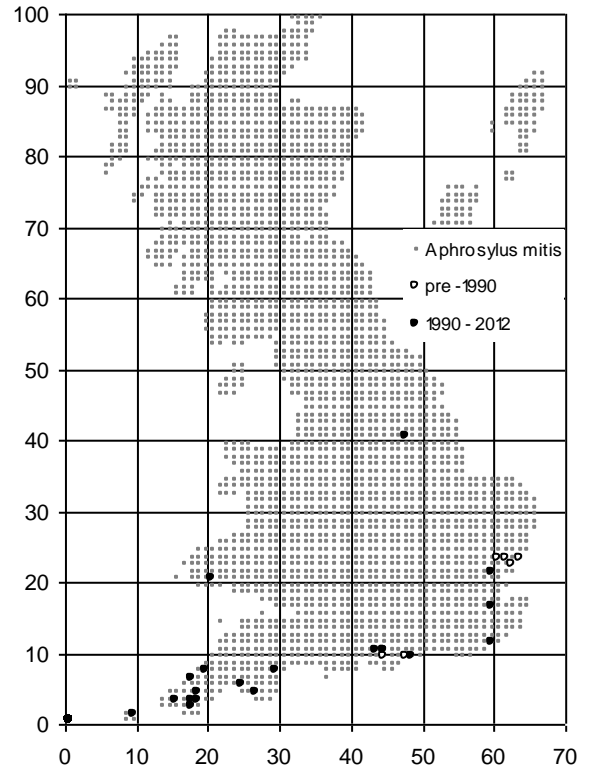
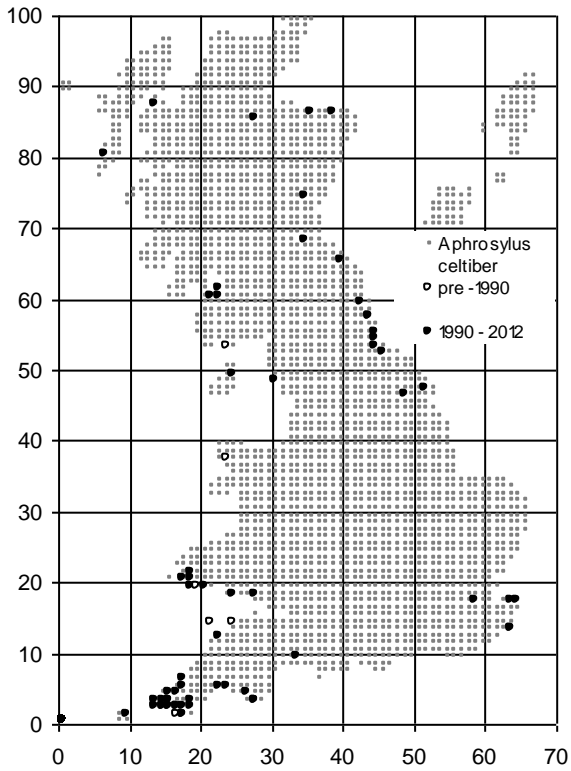
Aphrosylus live on rocky coasts where their larvae feed on barnacles (Poulding 1998). *A. celtiber* (Map) and *ferox* are found around most of Britain where there are rocky shores and are consequently scarcer on the East Anglian and south-east English coasts. *A. raptor* is a south-western species of rocky shore but *mitis* is southern and more frequent in sheltered *Fucus*-rich estuaries (Map).

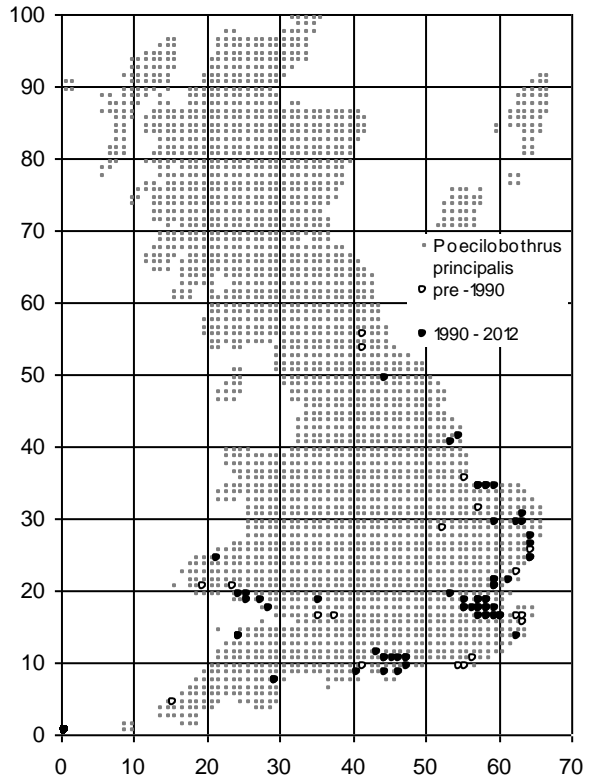
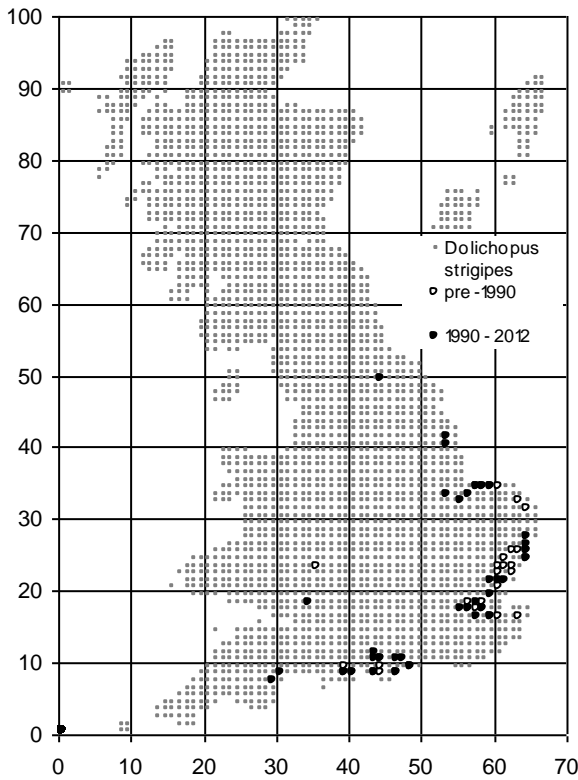
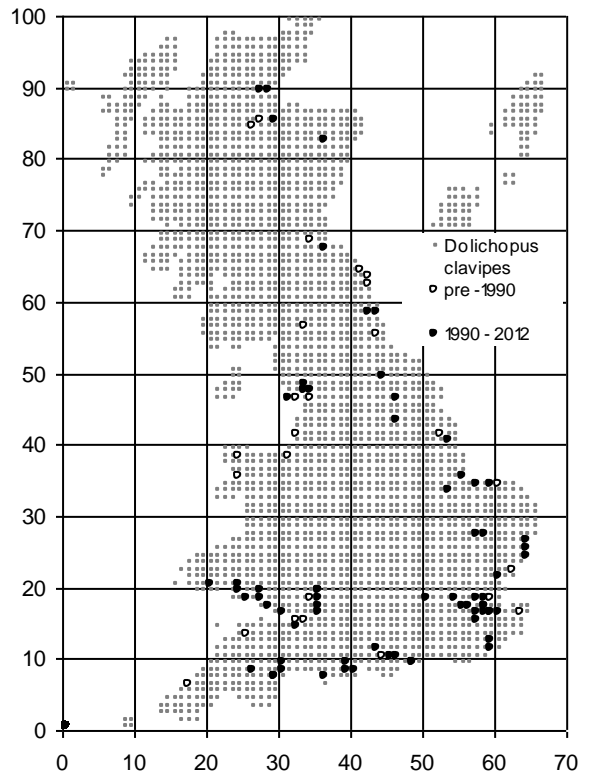
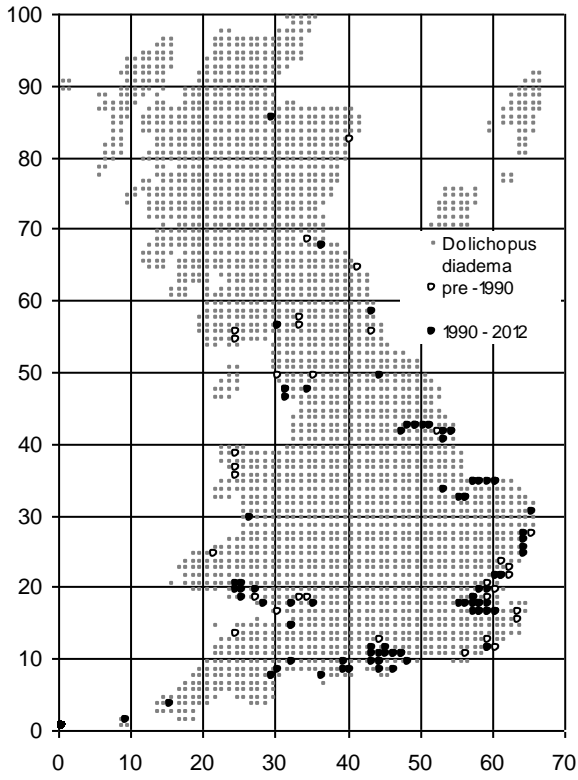
Sciapus laetus stands alone ecologically in being a southern species of dry coastal habitats such as dunes and dry grasslands (Map). Old inland records need checking. Its European distribution is restricted to countries bordering the Atlantic and North Sea.

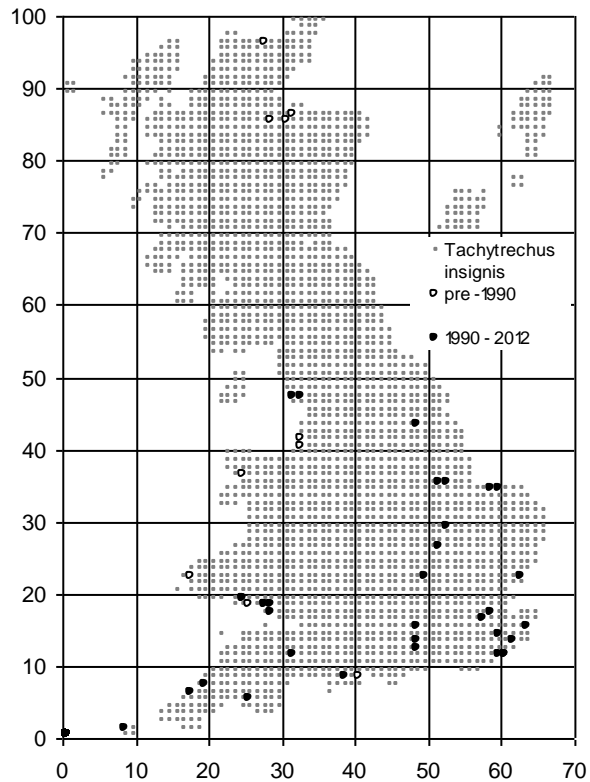
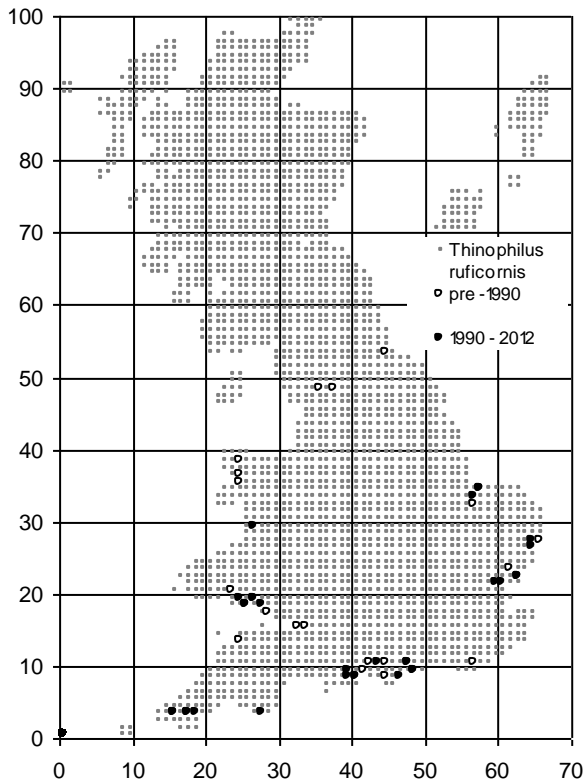
Most of the remaining coastal dolichopodids are associated with saltmarshes and similar wet muddy coastal habitat. There may be subtle differences in their requirements but these don’t come across in the maps. The ubiquitous common species include *Campsicnemus armatus* (Map), *Dolichopus diadema* (Map), *Hydrophorus oceanus* and *Machaerium maritime* whose distributions mirrors that of saltmarshes. These appear to be less common in Scotland in comparison to the rocky-shore *Aphrosylus* but this may be a data-deficiency effect. I show *D. clavipes* (Map) as one of the more widespread species and an example of where the similarly named *D. claviger* is probably responsible for inputting errors leading to inland dots (*D. signifer* is the other coastal example with odd inland records: *D. signatus* is a freshwater wetland fly).

Some saltmarsh species are really quite frequent in the east compared to west, for example *D. strigipes* (Map) and *Poecilobothrus principalis* (Map). A few are decidedly southern, including both *Thinophilus* species, here showing *T. ruficornis* (Map) with some possibly wrong old northern inland dots.

I am not sure what to make of the map for *Tachytrechus insignis* (Map) which either includes lots of misidentification or the fly just needs wet bare sand, peat or mud, whether by the coast or inland.







Review of Diptera statuses

Martin Drake

I mentioned in the report above that Natural England have commissioned a review of the rarity statuses of some families of British Diptera. I have been asked to assess that statuses of dolichopodids. Steven Falk first allocated statuses using the NCC Red Data Book system but without supporting evidence (Falk, 1991), and Roy Crossley finished a draft of a more detailed review that was revised by Ian McLean using IUCN criteria, appearing in 2005 (Falk & Crossley, 2005). The current attempt builds on these authors' excellent work, making use of the recently computerised E&D MapMate database and NBN data, and using a more recent date of 1990 to separate 'old' from 'new' records, in an attempt to apply the rather stringent IUCN criteria in the right spirit – making it clear when there has been rapid recent decline. The final product is a spreadsheet that will appear on Natural England's website where it is intended to be updatable.

Checklist corrections

Peter Chandler pointed out some mistakes I made in my article 'Changes in the dolichopodid fauna', *E&D Newsletter* No. 16, p5. *Chrysotus angulicornis* has indeed been restored from synonymy with *C. gramineus* but all purported British specimens were *C. gramineus*, and so far no-one has found *C. angulicornis* in Britain (Negrobov & Chandler, 2006). Irish *Systemus alpinus* proved to be *S. mallochi* (Alexander *et al.*, 2009). So the British Isles total is about 301, not 303 species.

References

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