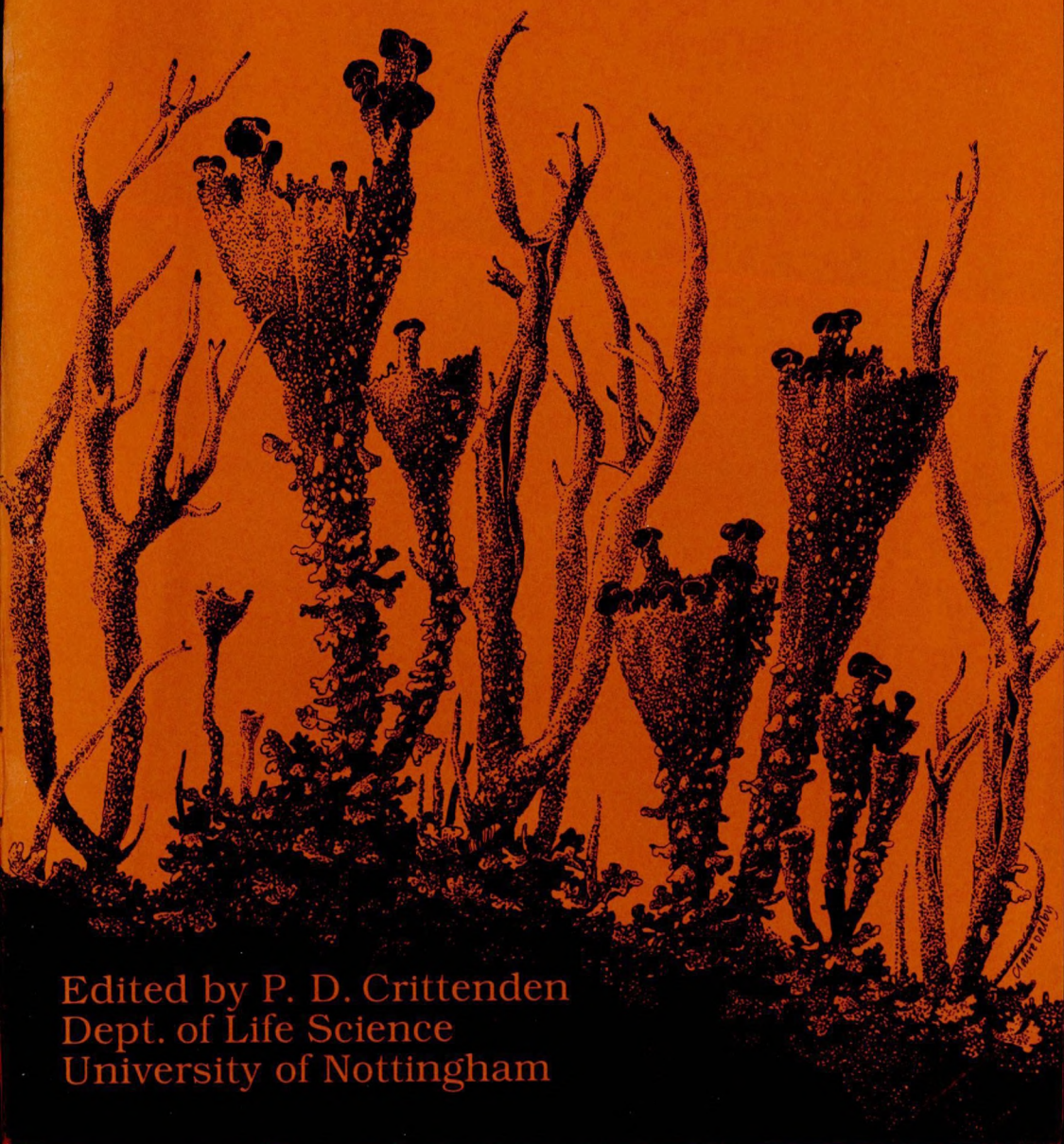


# BRITISH LICHEN SOCIETY BULLETIN

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## CHURCHYARD NATURAL HISTORY

On a recent outing with a group surveying churchyards in Lincolnshire, one of the members asked me if I knew of a fly that walked sideways. I realised that he was referring to *Medetera*, one of the tiny predatory members of the Dolichopodidae. During July and August they occupy vertical surfaces countrywide including church walls and headstones, always facing upwards and with body tilted at an angle. They feed on a variety of minute insects and I have seen them manipulating and masticating thrips (Thysanoptera or thunder-bugs) in the exceptionally large labella. Having written thus far, I went outdoors to catch some and they turned out to be *M. truncorum*.

That initial query made me realise that though BLS members are obviously specialists most of us also have an interest in Natural History in general. The following observations may therefore serve to unravel other mysteries.

Another phenomenon around July time is the appearance of countless billions of tiny red mites referred to in childhood as "blood-suckers"! These are not red spider mites and the BM could only quote the genus *Balaustium*. Their random and frantic search patterns with constant stops apparently to inspect the surface makes me suspect that they are foraging for spores or pollen grains.

One tiny creature that seems to be especially associated with lichens is the hairy millipede, *Polyxenus lagurus*, 3mm long when fully grown. Though it does occur in litter and under bark, I have only encountered it in churchyards on lichen covered stone. It is usually solitary but I found hundreds traversing the church wall at Allertorpe in Yorkshire. With its lateral hair tufts and two caudal plumes it distinctly resembles an elongated carpet beetle larva, *Anthrenus*.

The soil below grassed areas of the churchyard is the province of leather-jackets, the larvae of craneflies or daddy longlegs. Identification is not easy but there is one that can be named by anyone. In October, adult *Tipula pagana* emerge and hang about on vertical surfaces during the day, one in every five being a wingless female. One rarely sees wingless tipulids but at St. Michaels, Brough in Westmorland, they adorned the church masonry and most of the headstones.

Grasshoppers in churchyards can be identified unseen, just like birds. The most usual species is the common field grasshopper, *Chorthippus brunneus*, but the common green, *Omocestus viridulus* may also be present. The songs of all eleven species are unique. *Chorthippus* produces up to eight short chirps

of half a second duration at two second intervals. *Omocestus*, on the other hand, chirps in an unbroken stridulation for about fifteen seconds, slowly increasing in volume for the first five or six seconds.

Many solitary wasps in various livery may be noted hovering near or on church masonry. Some have their cousins' black and yellow stripes while others, much smaller, will be black or bronzy. One hymenopteran is very distinctive and only noted when actually on the church wall. This is the black spider-hunting wasp, *Dipogon variegatus* whose female can reach 9mm in length. The forewing has a preapical sooty transverse band and when wings are folded flat over the abdomen the hyaline tip shows as a tiny white circle. The wings constantly quiver, the antennae restlessly tap the substratum and the wasp walks jerkily, and stiff-legged: a perfect example of hyperactivity. She is often seen with prey, the light brown crab spider, *Xysticus cristatus*. The wasp has been observed rapidly excavating a burrow in soft mortar using its robust mandibles.

The grassed area in many yards becomes a blue carpet in Spring with the flowering of germander speedwell, *Veronica chamaedrys*. Some readers may have noticed that the tip of the plant develops a hairy, whitish swelling. This is due to the gall midge, *Jaapiella veronicae*, ovipositing into a growing bud. This causes the two terminal leaves to unite and swell outwards. The gall is multilarval and the mature larvae pupate within.

Those lichenologists surveying corticolous species may have noticed another small fly on the trunk, also with the ability to run swiftly sideways but, unlike *Medetera*, rarely taking to wing. Similarly sized, about 3mm long with dusky-streaked wings folded flat over the abdomen and front tibia strongly dilated and darkened, this fly is a predatory empid, *Tachypeza nubila*.

The one situation that unites both disciplines concerns those invertebrates which browse on lichens. Leaving aside mites, molluscs and psocids, the rarest herbivores are the case-bearing larvae of the Psychidae. These micro-moth larvae conceal themselves in spun silk tubes often adorned with lichen fragments. At St.Oswald's church, Collingham below Wetherby, I collected a number of larvae in grey cases, tastefully ringed with soredia of *Caloplaca citrina*, at the end of June, 1993. They had decimated *Physconia grisea* on a marble headstone. These hatched out as *Luffia ferchaultella*, new to Yorkshire. Only today (13 August) I found larval tubes of a different kind at Earsden church, near Newcastle, whose occupants were on granite, dining on *Lecanora conizaeoides*. Anyone finding these cases is urged to send samples to H. Beaumont, 37 Melton Green, West Melton, Rotherham, S.Yorks S63 6AA.



With around 300 BLS members looking, the range of this very rare family of moths could be considerably extended, provided that you always remember to pack a couple of tubes along with the lichen impedimenta.

Don Smith

*Further reading*

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## DAVID HAWKSWORTH HONOURED

David Hawksworth has been appointed by the Secretary of State for the Environment to the Council of English Nature commencing 1 August 1996. In October he was awarded the honorary degree of Doctor of Philosophy by the University of Umeå. As many readers will know already, David was also appointed a Commander of the British Empire (CBE) in 1995.

Ed