

ECOLOGY IN SOMERSET 2014

EDITORIAL

I am writing this on Thursday, 7 May, the day of the General Election, following an election campaign that has paid scant attention – yet again – to environmental matters. When the economy is in trouble, the environment (it seems) will just have to wait. The central issue of climate change has had to play second fiddle to more immediate concerns: sorting out the economy, reducing the deficit, and looking after our schools and hospitals. Last time round the coalition boasted that it would be ‘the greenest government ever’, but in recent weeks there has been hardly a mention of green issues by any of the so-called main parties. The solution to our problems, apparently, is economic growth; and so fracking is likely to be assessed in terms of the economic prosperity it’ll bring rather than the environmental damage it could cause. Fracking, if it happens, will bring into play a further (and potentially immense) source of fossil fuel, meaning that attempts to control carbon emissions could falter at a time when the science suggests that, unless we do something pretty radical, further climate warming and significant sea-level rise will be inevitable.

In the meantime, naturalists in Somerset continue to keep track of what’s going on in the natural (and not so natural) world. Our main paper this year is devoted to a review of the intertidal invertebrates of the Somerset coast. John Crothers has spent half a lifetime studying the intertidal fauna of the Bristol Channel, and this important paper represents a distillation of his and numerous colleagues’ work over that time; it updates previous lists and pulls together for the first time a great wealth of information languishing in hard-to-find papers and unpublished reports. It is not the sort of paper you’d set out to read in one go, but it puts on permanent record what is known of the county’s intertidal invertebrates, and will doubtless be an important resource for biologists for decades to come.

Following two full-length papers we have the usual short reports which, amongst other things, hint at some of the ways in which wildlife is responding and adapting (or not) to environmental pressures and, in particular, to the challenges of

extreme weather events and a changing climate. More than anything else, 2014 will be remembered for the extensive and prolonged flooding of parts of the Somerset Levels and Moors. And yet it was, perhaps, the mild spring – one of the three warmest springs of the last one-hundred years, the others being in 2007 and 2011 – that led to some of the more immediate and notable responses from our wildlife: the early emergence of many dragonfly species, for example, and first flowering dates two to three weeks earlier than in 2013, and about 24 days earlier than the dates recorded by Walter Watson in the first half of the 20th century.

And it’s not just the timings of seasonal events that are affected. Climate change may also be one of the factors behind the shifting distributions of some plant and animal species. For example, the Small Red-eyed Damselfly (*Erythromma viridulum*), a continental species which colonised Britain (Essex) as recently as 1999, has extended its range so rapidly that you can now find it in Long Run Meadow and along the banks of the River Tone just outside Taunton. This is the latest in a long procession of ‘southern’ species with expanding ranges, of which Cetti’s Warbler, Little Egret and Great White Egret are probably the best known examples – but to which, locally, we could add others such as Tree Bumblebee (*Bombus hypnorum*), Jersey Tiger (*Euplagia quadripunctaria*) and Roesel’s Bush-cricket (*Metrioptera roeselii*).

The spread of numerous introduced species, too, may have been facilitated to some extent by climate change. As usual, the report on vascular plants highlights a number of new county records, and mostly you’ll find that these are of non-native species. Many of our ‘alien’ plants have originated from warmer climes, and one suspects that their ability to persist, and spread, in the wild is at least partly the result of a warming climate. Equally, a number of gall-causing wasps, mites, midges and rusts have colonised Britain in recent years. Many, like the gall mite *Vasates quadripedes* – reported as new to the county in last year’s issue of *Ecology in Somerset* – are restricted to their introduced hosts. But others have made the leap to native species too, like the ‘daisy rust’ (*Puccinia distincta*), originally introduced to gardens from Australia

and New Zealand on cultivated daisies but now also occurring on our native Daisy (*Bellis perennis*). In the last eighteen years this rust has spread rapidly across southern England, with its first records in Somerset apparently being in 2014.

As usual, we wish to thank everyone involved in the preparation of this issue of *Ecology in Somerset*

– the authors of course, but also all those who have helped in reviewing and editing the various submissions.

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On behalf of the Natural History Committee
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