

Mike's Wildlife Musings: environment and conservation

Spring 2013

Weather reports for April and May

April

The month was quite a dry one eliciting mutterings from the water utilities of drought conditions occurring and the possibility of water supply shortages. The concerns were well founded as, apart from heavy rain on the 10th followed immediately by three wet days, there were only six days later in the month when only small amounts fell. There were 11 days on which it rained and the total amount for the month was 41.6 mms. (1.6ins.)

The cold northwest/northeast winds suffered in January through to March persisted in April sustained by high pressure over Scandinavia which maintained the Arctic airflow across the country. There is speculation among some meteorologists that it is the tendency of the Atlantic jet stream to run along the Channel for prolonged periods which is determining the wind direction and unsettled weather.

Temperatures were well below average with overnight frosts and below zero figures from the 1st to the 6th of the month (- 4.1 Celsius on the last date). There were only five days when the wind blew from what is normally the prevailing wind direction of south-west. It has been remarkable that over the closing months of 2012 and first four of 2013 it seems that the prevailing wind is now from a northerly quarter. Is this going to be the norm from now on?

May

The pattern of weather experienced in April continued into the beginning May. The only really warm day was the early bank Holiday Monday, when the thermometer touched the low twenties Celsius. The wind remained in a northeast/northwest quarter, it being very strong between the 7th and 10th with a significant chill factor and clear skies overnight giving rise to ground frosts. This continued until the late Bank Holiday (25th-27th) over which the days were sunny and quite warm. The unsettled weather returned after the holiday weekend, with considerable falls of rain. However, the last two days of the month were sunny, had spring finally arrived? The month was wet on 13 days with a total rainfall of 62mms.(2.43ins.)

An exceptionally late Spring

As this Musings is being compiled, spring seems hardly to have occurred fully. Although flowers, such as Bluebells, Stitchwort and Wood Anemones, have finally bloomed, Oak trees in sheltered and shadowy locations are still not in full leaf. It has been estimated the most flora is up to six weeks later than last year. It is claimed that this has been the coldest spring for 50 years.

Migrant birds were very badly affected in that they faced strong northerly head-winds which deterred them from continuing their northward flight. Blackcaps, Chiffchaffs, Garden Warblers, Swifts, Whitethroats and Willow warblers were at least three weeks later than normally, certainly in fully engaging in territorial song. Nevertheless,

Cuckoos arrived in the Inkpen and Kintbury area on the 16th of April which is actually a few days earlier than usual. We are lucky that they can still be heard locally (nationally their numbers have fallen by 62% since 1970). There are far fewer Swifts in Kintbury this year (nationally there are 38% fewer than in 1995); if the weather continues to be unsettled their chances of rearing fledged young will be as bad as last year. Other migrant species that have sharply declined are extremely scarce locally. For example, Nightingales, that were relatively common in the Netherton Valley, south of Linkenholt, on Inkpen Common and along the Kennet and Avon Canal in the 1970s, will only certainly be heard now on Greenham Common. Migrant species rarely heard or seen in the area and are nationally threatened with extinction are the Spotted Flycatcher (minus 88% since 1970), Turtle Doves (93 % fall since 1970), Wood Warbler (65% decline since 1995) and Yellow Wagtail (72% decline since 1970).

Stone Curlews, which have nested locally for several years, had a disastrous start to their breeding when they arrived back in the country, especially in East Anglia and in Wilts at Porton Down. There have been a number of incidents of members of the species starving to death during the really cold days when they first returned.

Resident species, which are also in decline and are likely to have a poor breeding season, should the wet and cold conditions prevail; Lapwings, the Native Partridge and even Pheasants would suffer losses of chicks. The problem is again one of unsettled weather conditions when newly hatched young become chilled much more easily. With the exception of Blackbirds, Song Thrushes and Robins, which are quite robust birds, it has also been noticeable that garden birds are breeding late and indeed in the writer's garden several nest boxes are unused compared with last year.

Given the number of cold and wet days it is not surprising that there has been a dearth of insects. There have been so few warm and dry days to tempt butterflies to come out. Sightings have been confined to the early emerging species such as Brimstones, Large Whites, Peacocks and Orange Tips. Bumblebees are not particularly abundant despite them being quite hardy and able to fly and forage in rather cold and damp conditions.

Why are both migrant and resident birds in decline?

It is too simplistic to blame the changes in agricultural practices since the 1940s, such as more intensive land use, especially crop growing, the loss of hedgerows, disappearance of flowering meadows (a 97% loss since the 1960s) and downland grasslands and the use pesticides and herbicides that are toxic to wildlife.

There are many factors creating problems for birds within the UK that are unrelated to farming and which are more subtle. It is not possible to undertake an exhaustive examination in this short consideration of the factors leading to the decline of many bird numbers and species. The causes of the decline are both domestic and international.

In the UK these include the degradation and loss of habitats, such as wetlands, impoverished biodiversity and loss and poor management of deciduous and coppiced woodlands (90% loss since the 1960s). Extensive urbanisation has also been detrimental to bird life, eg. development of large tracts of lowland heathland (an

80% decline in 50 years), especially in Berks, Dorset and Hants, and the reduction in suitable nesting sites, for instance in buildings, for Swifts and House Sparrows. A significant feature of urban life is the proliferation of keeping pets, particularly cats, a common predator of birds. A recent study* considered the effects of this animal preying on birdlife in urban gardens, and, grossing up the deaths of adult birds and chicks to a national level, it was estimated that cats kill almost 30 million birds each year. Interestingly there are indirect impacts on the breeding pattern and success of birds in that they responded to an increased risk of predation by cats by a decreased provisioning rate for their young and aggressive protection of their nests. The decreased provisioning (feeding) rate reduced the productivity of birds, ie. the number of chicks reared. Paradoxically, the defence of the nest actually attracted more predation, including, possibly, by other animals, such as squirrels.

* *Journal of Applied Ecology* , (2013) Vol. 50 pp. 15-24; also reported in *British Wildlife*, (2013) Vol. 24, No. 4 p. 274

Internationally, one of the most significant factors giving rise to the decline in bird numbers among some species migrating to the UK and threatening their extinction is climate change. For example, many species have to brave the Sahara desert on their autumn migration south and clearly their spring one north. This desert is expanding its boundaries and consequently birds have to fly greater distances over it to reach their seasonal destinations. It is an unforgiving location with little opportunity to secure food and water and there is some evidence that more migrants are perishing when attempting to cross it. Climate change has inevitably affected weather patterns as indicated above with regard to adverse wind directions on migration routes and severely wet conditions en route and in destinations in northern Europe.

There is a human factor internationally threatening birds quite markedly. As with land use changes referred to in the UK above, the same is happening in their winter quarters and on their migration routes. Moreover, the cultural traditions of many Mediterranean countries over which migrating birds fly is such that they are literally 'fair game' so that very small species up to the largest are shot or trapped. The numbers killed is not known, but they are thought to be considerable, prompting efforts by both domestic and international wildlife bodies at least to restrict the hunting season and/or ban the shooting of birds entirely.

While trends in the prospects for both resident and migrating birds in the UK and locally appear to be uncertain, it is not all doom and gloom. Climate change has resulted in species hitherto rare in the country, such as Cranes, Little Egrets, Spoonbills establishing themselves as breeding birds. In winter the temperate climate of the British Isles attracts species escaping the severe weather in Scandinavia and Eastern Europe and Greenland to seek food sources in amenable locations in the UK, for example, Bewick and Whooping Swans, Barnacle and White-fronted Geese, Fieldfares, Redwings and Waxwings.

An update on the neonicotinoid pesticide saga

After protracted controversy and debate, on the 29th April an agreement was at last been agreed by the European Commission (EC) to ban in December this year the application of three nerve-agent pesticides: clothianidin; imidacloprid and

thiamethoxam (TMX), for two years. The UK government voted against the ban, but it will not be able to opt out of it. While environmentalists welcomed the ban, it was a qualified one as the hope was that these pesticides would be permanently banned.

The argument between chemical companies, the UK and EU governments, farmers, scientists and environmentalists over many months has centred on the impact on pollinating insects, notably honey bees, of these pesticides. Thirty research studies found a link between the pesticides (insecticides) which attack insects' nervous systems resulting in there being a decline in bee numbers. The ban in the European Union (EU) stemmed from the European Food Safety Authority which found there was a risk to bees of the chemicals.

It will depend on the results of further research and the effect of the two year ban on pollinating insects what the outcome will be on use of neonicotinoid nerve agents in the future. Field studies now being conducted on the effect of the chemicals in practice on bees, rather than in laboratory experiments, and what impact the ban will have on the recovery or not of bee populations should reveal whether the ban should become permanent or be abandoned.

Footnote: *The State of Nature*, a report by 25 wildlife bodies has just been published. It is a kind of stocktaking of the number and variety of a wide range of wildlife in the UK. A review of this report will be given in the next Musings.

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