



## DECEMBER

Crisp mornings are often enlivened by frost on the ground, more noticeably frequent in the rural north, but even counties around London have far more frost nights than the capital. For both people and the flora & fauna of London, its huge size filled with buildings protect against frost and there may only be 5 frost nights a year for much of the city due to the storage-radiator effect of those buildings on their surroundings.

Some huge flocks of starlings have taken advantage of this protection, and form big city roosts. In the dusk of the end of December spectacular wheeling displays of starlings, in numbers that can be over a million, have dusk flights before settling down to roost in equally gregarious fashion. They can also be seen in some areas of the country, for in addition to buildings they may roost together in trees or in large reed-beds. Many of our winter starlings are migrants, those in the north originating in Scandinavia, whilst those in the south tend to come from the Netherlands and Germany.

December has the winter solstice, the shortest day of the year just a few days before Christmas, which is when the sun is furthest from our hemisphere and heralds the transition to colder wintry weather. The issue each year of 'Will it be a White Christmas' is really about London & the south, for in the northern uplands of Britain it is far more frequent. It seems it holds a particular collective sway on us due to Charles Dickens having his formative youthful years in a series of cold winters with White Christmases (at the tail end of what is sometimes referred to as the 'Little Ice Age').

Snow can cut off birds and other wildlife from their accustomed food sources, and become an especial problem for small birds with little fat reserves. For some garden birds you can help their survival in snowy conditions by ensuring your bird table has a roof to prevent the snow smothering the food. Suspended bird feeders normally continue to be available in the snow to birds that exploit such feeders, such as Blue, Great and Coal Tits.

However, for some species the insulating blanket of snow (which is mainly trapped air amid the snowflakes) protects the underlying soil from freezing (especially if there was not a frost before the snowfall). Invertebrates including earthworms benefit from this, plants too can gain protection.

Field Voles positively benefit from snow cover as it shields them from the sight of avian predators like buzzards and owls. Field Voles make their runways on the ground surface among the stems of grass (which is also their food), especially in areas of tussock grass. The trapped air by the grass stems is added to by snow cover, and with reduced predation the voles thrive. 2010 and 2011 had numbers in Scotland that have been described as 'plague proportions' more than witnessed for 2 decades due to two winters with deep protective snow. There has been found to be a direct positive link between snow depth and Field Vole numbers. (Remarkably this can subsequently benefit the buzzard breeding when they can benefit from the glut of their Field Vole prey).



Common pheasant – *Phasianus colchicus*

recognise it as a remarkable plant for it is semi-parasitic, taking some nutrients via its roots sunk into the tree whilst manufacturing the rest by the chlorophyll in its leaves. Birds will eat the berries of holly, ivy and mistletoe, but the sticky nature of the seeds in mistletoe means that birds have to wipe them off firmly onto branches to clean their bills, which is how the plant is spread.

It has been associated with the rites of the Druids 2,000 years ago, and its believed magical fertility powers kept it at the heart of Christmas festivities, for before it was supplanted by the introduction of the Christmas tree it was suspended in the centre of a double hoop of entwined greenery called the Kissing Bough. A girl standing under the Bough expected to be kissed!

When we put up Christmas decorations we follow a long tradition of bringing greenery in for the midwinter festival which owes its origins to pre-Christian times. The living winter greenery symbolically showed the continuity of life, despite being in the midst of the wintry death or sleep in the cold of the majority of plants in the countryside.

Across the centuries rosemary and bay were used alongside the best-known trio of the holly, ivy and mistletoe. Holly leaves are protected from winter conditions by their waxy surface, and from being grazed by their sharp spines. Both these features give decorative shiny reflective surfaces in candlelight and firelight, which is added to by their bright berries. As our native species of holly normally has all male and all female flowering trees, consequently only female trees bear berries.

The berries of the ivy are black, and were thought to hold a sinister magic that could keep evil at bay, so holly & ivy were hung on the entrance door, still echoed in the Christmas wreath that we hang on our front-doors.

Mistletoe has always been considered a strange and magical plant as it has white berries and grows in clusters high up on trees. Today naturalists still