

Phil Sheldrake is the RSPB Conservation Officer for Wiltshire and Gloucestershire.

Phil's interest in birds and wildlife started when he was young during the summer holidays with his grandparents, who lived just North of Salisbury. They used to go for walks along the fields by the River Avon and he remembers watching the fantastic wheeling display flights of lapwing for the first time in what he describes as the magic of the countryside.

His grandmother called Lapwings 'Peewits' which is another name and is an imitation of their cry, Lapwing being a name describing their flight. In those days, the population was higher in the UK, over the last 40 years the Lapwing, or Peewit has suffered significant decline and is now on the RSPB Red Status list of species.

When Phil came to visit Horatio's garden he was helpful in thinking about the four bird zones that could describe the hospital environment:

1. Horatio's Garden, here, for instance, you can see Sparrows, Robins, Blackbirds and Blue Tits.

2. The hedgerows in and around the car park: You can see Yellowhammer, with their 'little bit of bread and butter with no cheese' cry, they are also on the Red Status list. Watch closely and you may be lucky enough to see a sparrow hawk patrolling.

3. The fields beyond the carpark, here it might be possible to spot Corn Buntings, described by the RSPB as a stout, dumpy bird with a jangling cry, or a covey (family) of Grey Partridges, again, both on the Red Status list.

4. The skies around the hospital and garden: This is where you might see and hear the Skylark (the sound of summer), Swifts, and birds of prey, mostly Buzzards and Red Kites. The Red Kite population has grown in recent years, with winter roosts in Wiltshire reaching nearly 100 individuals birds at the last count.

Phil has collaborated with Gary Price (Clerk of the Works at Salisbury Cathedral) and they were successful in encouraging Peregrines back to nest on the Cathedral's spire in 2014 after an absence of 61 years. They are monitored by cctv and have fledged nine chicks over the last three years.

"It really is very exciting that we now have an established pair at the Cathedral, arguably one of the most charismatic birds at the probably the country's most magnificent Cathedral – quite a prestigious nest-address!" Phil Sheldrake

Jeremy Thomas is Emeritus Professor of Ecology, University of Oxford, Department of Zoology.

A good deal of my life as a scientist is spent in trying to understand the biology of butterflies: why some species are common but most are rare; why a few are increasing but more, sadly, are in decline, and how each species behaves, lives and has evolved to integrate so closely with its environment that it can thrive only in certain special places in the wild.

Conducting research into the ecology of every stage of a butterfly's life cycle has been intellectually fascinating in its own right. It inevitably involves exploring the nature and dynamics of the communities with which a butterfly interacts, including the ecology of the plant(s) on which its caterpillars feed, the behaviour of the birds, shrews, mice and parasitic wasps that kill more than 95% of the vulnerable younger stages, and the mutualistic ants which, in exchange for sweet secretions of honeydew, nurture and protect the caterpillars and chrysalids of roughly a quarter of British and European species.

Having pieced together the jigsaw of life, death and dispersal in a butterfly species, my next step is to identify the precise habitat conditions in which a population can survive. Then comes the really satisfying bit: testing one's definition of the optimum habitat for a threatened species by attempting to create or restore it on multiple sites across landscapes, and monitoring the response of the butterfly in question. In this way my group members and I have been privileged to reverse the seemingly terminal declines of the Adonis blue and Silver-spotted skipper on chalk and limestone downland and of the Heath fritillary in woodland – all having been on trajectories towards predicted UK extinction by 2000-2010. Others projects have included the establishment of the Black hairstreak, once Britain's rarest butterfly, as a thriving species in the blackthorn scrublands of the East Midlands forest belt, and the restoration of the Large blue butterfly to a string of grassland hillsides in the west country.

I became interested in butterflies as boy of 10, when my mother encouraged me to rear some peacock caterpillars I had found on stinging nettles. The stunning beauty of the chrysalis, followed by that of the adult peacock, hooked me for life. In my teens I started photographing butterflies in the wild, and it was a simple choice to study for a PhD exploring why black and brown hairstreaks were so rare when their caterpillars' foodplant, blackthorn, was so common. This led to a career as an ecologist and conservation biologist working for the Natural Environment Research Council, and thence as Professor of Ecology at Oxford.

Why should we all care about butterflies? In the first place, most of us find them very beautiful, and the more we learn of their behaviour and adaptations in all four stages of the life cycle, the more interesting they become. For many, they also symbolise peacefulness and a fragility and connection to a more natural world that provides an antidote to the bustle of modern life. They are invaluable too, in conservation, as some of the most sensitive indicators to environmental change. For not only do their populations react much more quickly to changes in habitats than do birds, mammals and plants, warning us of problems ahead, but they also signal changes that are occurring simultaneously in many other inconspicuous insect species that provide vital services, such as pollination, in maintaining the health of ecosystems. For both reasons, butterflies have aptly been described as "the miner's canary of the natural world"