

## Bird Watching on the Asphalt

A.J. Lees

The National Hospital, Queen Square, London WC1N3BG

*Attempting to make a diagnosis from a collection of baffling symptoms is comparable to the challenge of identifying an unusual bird that refuses to stay still. Many neurologists take up birding as a hobby where they can apply their observation and listening skills and be free to celebrate the thrill of accurate diagnosis without censure<sup>1</sup>. A few also become ornithologists, writing in scientific publications on avian anatomy, physiology and behaviour, and even on the neurological disorders of birds. In this essay I describe how bird watching and a love of natural history turned me not only into a noticer but also influenced my choice of medical speciality.*

I still remember dreams where I could fly, and how as a child I loved the sound of Old Brown's hoot. Recognising a robin, a duck, a swan and a house sparrow was part of growing up, but I also picked up the names of other birds I didn't know from the chatter of my mother and father, as they looked over our little lawn at teatime. Every Thursday when the box of groceries was delivered from the Thrift Stores, I pulled out the packet of PG Tips and rummaged in the interstice between its foil wrapper and cardboard carton hoping the gannet

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<sup>1</sup> William Adie, Charles Symonds, Henry J.M. Barnett, John Marshall, David Marsden, Peter Rudge, John G Morris are just a few of the contributors to *Brain* who enjoyed or are still enjoying observing birds. Joseph Bell, the Edinburgh surgeon on whose eye for detail Arthur Conan Doyle based his fictional character Sherlock Holmes, was also a keen ornithologist. Santiago Ramón y Cajal wrote in his diaries, 'As a derivation of these tastes, a passion for animals, especially birds, of which I made a great collection, came over me later. I would be pleased to raise them when they were little, to build them cages of wicker or reeds, and to lavish all kinds of pampering and care on them. My passion for birds and nests was so extreme that there was spring that I got to know more than twenty of them, belonging to various species of birds. This instinctive ornithological inclination increased still further. I remember that I was about thirteen years old, when I decided to collect eggs of all kinds of birds, carefully classified'.

would fall out rather than yet another repeat. It was these Brooke Bond Tea collectable picture cards that provided the platform for me to leave stamp collecting and train spotting behind and start to create an inventory of garden birds.

For my twelfth birthday I asked for a compendium that would allow me to put a name to the birds I was seeing in my garden and the old pasture. Every bird that had been sighted more than fifty times in the last hundred years was included in the Collins Pocket Guide of British Birds. Richard Fitter, its author had discarded the standard Linnaean classification and devised a new approach that would assist bird watchers out in the field to identify species they had only glimpsed. The descriptive section was divided into the three broad habitats of land, waterside and water, and within each of these groupings, the species were laid out in ascending order based on their length. The 64 pages of illustrations arranged the individual types by their colour and likeness. A further 48 monochromatic images depicted raptors, gulls and waders in flight. At the bottom of each plate there was a silhouette of a house sparrow which served as a size comparator. In the key at the back, birds were categorised according to the colour of their feathers, anatomical features such as their feet, head, wing and tail, their haunts, and particular behavioural characteristics. The guide made the point that female, male and immature birds of the same variety could look quite different and that their feathers often changed markedly with the season. It also reassured me that even expert bird watchers made diagnostic errors often in their mania for rarities.

One day, about a year after I had started to keep field records, I looked out from my bedroom window and saw a group of dark birds huddled close to the 25-yard line. In a moment of drama, they rocketed into the air, skimming the tops of the goal posts, and whirred away over the chimney tops. The pack of eight were back the following morning, crouched low on the grass pecking the pitch like wood pigeons with their small black beaks. My mother and father could not tell me their name nor where they had come from.

There were too many medium sized land birds in my guide to be of much help and none of the illustrations seemed a close match for what I was seeing. So, I turned to the key. The list of brown birds included partridge, woodcock, corncrake, red grouse, snipe, ruff and bittern, but only two of them, the golden plover and the red grouse, had a black bill. I flipped back through the illustrations and immediately discounted the plover, so I homed in on the red grouse. The text informed me that *Lagopus lagopus scotica* was endemic to the upland moors of the British Isles where it fed on ling, bilberries and small insects. Field identifiers that I had been unable to discern included a crimson band above the eye, a hook-tipped bill and light grey feathered feet. Sensing my uncertainty, my father reminded me that birds could fly anywhere

they wanted to and that very few remained in one place for long. He went on to say with a smile on his face, 'birds also do not read bird books'.

That evening I wrote in my diary:

The red grouse were on the rugby pitch. I think they may have come here to escape the burning heather on Blubberhouses moor.

The identification of the red grouse sparked my interest and I started to spend my Saturdays travelling to bird haunts like Spurn Head and Swillington Ings in the company of adult naturalists. These experienced and learned people emphasised the importance of writing down what I saw and showed me where and how to look.

My mother, who sometimes used birds to tell fortunes, conserved my bird journals for many years. After I had qualified as a doctor she handed them back to me reminding me how as a 12 year old I had needed to be able to name every little brown bird that came into view. She then said, 'Do you remember when you found that dead blue tit unharmed in the garden and how you buried it under the laburnum marking the spot with an ice lolly stick?' At the time she had told me that when sailors were lost at sea blue tits carried their souls to heaven.

I have one of my maroon hardback journals open in front of me now, its lined pages filled with an italic script that I scarcely recognise as my own. Each entry is meagre and ordinary. The mechanical accounting with daily averages and graphs that followed the descriptions were remnants of my need for system, formality and rules. Even so watching birds taught me the virtue of patience and composure and how to focus on a single living thing at the expense of everything around it:

Sunday April 24th

'The weather was cold with a strong wind blowing ... A blue tit was feeding on the nuts when a greenfinch wanted to. A fight broke out but not for long for the tit attacked the finch with such ferocity that the greenfinch was forced to withdraw'.

Saturday June 11<sup>th</sup>

'The weather was mild but there were a few rain showers. A song thrush began to build a nest in the flowering currant bush, but it was only seen once. It probably still had some young to feed and was building the new nest in its spare time'.

Daltonism, caused by a mutation in the green pigment in the cones of my retina, was an inconvenience that forced me to rely more heavily on the size, shape and behaviour of a bird than the colour of its plumage. My parents had told me that the grouse were chestnut brown rather than dark giving me the missing marker that had allowed me to identify the bird in my *vade mecum*. Flashes of buffs and greens that were so important in distinguishing brown female dabbling ducks like mallards, gadwalls, pintails and teals were out of my visual range. I was forced to focus on movement and learn to spot an immature blackbird just by the way she cocked her head. When a dark shape dropped like a stone from the garden fence, I did not need to see a red breast to know it had to be a robin. I became an expert in the gestalt of birds and was soon able to put a name to many types just from their flight or the way they walked or hopped. I also discovered through my interactions with other bird watchers that I was better than everyone else at picking up birds hidden in long grass. When out of the corner of my eye I spotted a mouse-rustle in the fallen leaves I knew that if it was tiny, chunky and brown with a cocked tail it was a wren, while if it was the size of a house sparrow with a streaked back and moved with a nervy shuffle flicking its wings it just had to be a dunnock. One of the naturalists who had taught me how to tell a willow warbler from a chiffchaff and was aware of my deficit told me that in World War II colour deficient observers could penetrate the khaki camouflage of the enemy when it had deceived normal people.

After the rains of May and the sunshine of June in my GCE O level year, I turned my attention to the life that depended for its survival on the desolate local meadow. As I lay in the long grass listening to the rasp and scrape of grasshoppers a skylark would dart out of the sward and climb into the air. Each ascent was like a firework display engineered to stunning effect, but one which varied in its calculated spontaneity depending on the weather. Nature's stability was providing me with a refuge, the more I observed in peaceful silence the more I appreciated the allure of birds and the beauty of ordinariness. Bird watching had become a vigil comparable to prayer.

What surprises me most as I read on in my childhood records is that they are devoid of not just colour but also song. It was as if I had been deaf to the calls of birds and that I had needed to see a fluttering shape to be sure they existed. Yet as I cast my mind back to those halcyon days, it is the harmonious discord of birds that evokes my sweetest memories of the garden and the dark wood, the four-note lullaby of the wood pigeon, the death rattle of magpies and the cuckoo I never saw.

My field journals got me started with cataloguing and organising knowledge, and through mixing with learned men at a young age I began to realise that a familiarity of observation was at the essence of all natural history. My colour blindness had taught me that perceived deficits could sometimes be associated with compensatory biological advantage including a greater appreciation of texture and contrast.

It was the rationality of neurology that first attracted me. I liked the idea that by listening attentively to the distress calls of my patients I could determine the cause of their complaint, and that the systematic examination allowed me to more precisely localise the site of their lesion. Through a combination of sensitivity, intuition, versatility and patience I was able to create a short list of diagnostic possibilities(1). As more data filtered in from the examination(2) and tests I was then able to infer the likely cause by a step wise process of elimination. Instead of looking at size and shape, colour and distinctive field marks I inspected each patient for stiffness and weakness, visible signs that suggested impaired proprioception and the presence of any adventitious involuntary movements. I kept an eye out for pathognomonic signs like the pill rolling rest tremor that was akin to the distinctive kestrel's hover.

Once I had become competent and knowledgeable enough to educate students I tried to involve them rather than force them to listen. When we were short of instructive cases on the ward I took them round the Circle Line. Before leaving the Cruciform building on Gower Street I asked them to observe the Underground passengers surreptitiously, paying particular attention to facial expression and hands and feet, observing how they rose on leaving the carriage and how they walked down the platform. I stressed to them that they needed to melt into the background and attempt to become invisible. After I had bought the tickets at the Euston Square ticket office we went downstairs to the westbound platform. When the next train pulled in we split up and entered four different compartments. It took us just over an hour to go full circle. On our return to the day room, I expected each student to give me a descriptive account of what they had seen much as they might do to the London Transport police after witnessing a crime. I expected them to comment on the subject's likely ethnic origin and, if they had heard any speech, the likely place of upbringing. If the person they had focused on had bright or beady eyes I asked if they had noticed the size of the pupil. If the commuter had looked anxious or angry I asked them to try to put into words what had made them think that. If they had noticed a limp I pushed them for more detail. I was pleased when they embellished their description with observations relating to the individual's clothes and accoutrements or when they speculated about the likely occupation. The intention was to try to encourage them

to become doctors on whom nothing was lost. Although I never discussed possible medical diagnoses I wanted them also to be aware that a clinical picture was far more than just a sick person in a night dress lying in a hospital bed.

My clinical gaze allowed me to sometimes suspect what was wrong at a glance(3). With increasing experience and self-awareness, I was able to take short cuts because I knew which signs to look for in a specific setting. The red grouse had taught me that when common things have been eliminated I should never be afraid to diagnose the exotic or unexpected. Binoculars had taught me the power of instrumentation and I was never without my ophthalmoscope in clinic. Retracting an incorrect diagnosis had far more serious repercussions than a bird spotting error and despite the appeal of pattern recognition I refrained from instant diagnosis and always became my own devil's advocate. Bird watching had also alerted me to the challenging problem posed by mimics and by phenotypic variation.

At medical school my nature walks became *dérives*. Even now as I walk I am always trying to better understand the habitats and lives of the people I encounter in the sanctuary of the hospital. If I meet my patients in the street I want to be able to not just recognise them but be able to have a chat about things other than their health. It took a long time for me to understand that giving a name to a disease was in fact the easiest part of good neurological practice. In order to make people better, neurologists need to bring themselves as well as their doctor's bag to the consultation. I still keep my eyes open for a black redstart on the Soho rooftops and for patients with chronic and debilitating neurological illnesses I occasionally recommend 'bird therapy.'

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## References

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## Legend to Figure 1

Both the chiffchaff and the willow warbler are summer visitors with a woodland habitat. The best way to distinguish them from one another is by their legs, the willow warbler has fleshy coloured legs while those of a chiffchaff are black. The chiffchaff also has darker ear coverts making the eye ring more obvious, whereas the willow warbler's eye stripe is more distinct, and its face has a more yellow wash to it. Willow warblers have a yellowy-white belly and chiffchaffs are a little more dumpy. The two birds also have very different calls. Chiffchaffs say their name and are constantly flicking their tails while the song of a willow warbler is sweet and soft and pops up a little at the end. If a bird resembling one of the two species is seen in the UK in the winter then it is likely to be a chiffchaff.