PERCH

Liz Harrison

Texts by Gilbert White and Mae-Wan Ho
Dear Sir,

Before your letter arrived, and of my own accord, I had been remarking and comparing the tails of the male and female swallow, and this ere any young broods appeared; so that there was no danger of confounding the dams with their pulli: and besides, as they were then always in pairs, and busied in the employ of nidification, there could be no room for mistaking the sexes, nor the individuals of different chimneys the one for the other. From all my observations, it constantly appeared that each sex had the long feathers in its tail that give it that forked shape; with this difference, that they are longer in the tail of the male than that of the female.

House-martins came remarkably late this year both in Hampshire and Devonshire: is this circumstance for or against either hiding or migration? Most birds drink sipping at intervals; but pigeons take a long continued draught, like quadrupeds.

Notwithstanding what I have said in a former letter, no grey crows were ever known to breed on Dartmoor: it was my mistake.

The appearance and flying of the *scabroeus solstitialis*, or fern-chafer, commence with the month of July, and cease about the end of it. These scarabs are the constant food of *caprimulgus*, or fern-owls, through that period. They abound on the chalky downs and in some sandy districts, but not in the clays.

In the garden of the Black-bear inn in the town of Reading is a stream or canal running under the stables and out into the fields on the other side of the road; in this water are many carps, which lie rolling about in sight, being fed by the travellers, who amuse themselves by tossing them bread: but as soon as the weather grows at all severe these fishes are no longer seen, because they retire under the stables, where they remain until the return of spring. Do they lie in a torpid state? if they do not, how are they supported?

The note of the white-throat, which is continually repeated, and often attended with odd gesticulations on the wing, is harsh and displeasing. These birds seem of a pugnacious disposition; for they sing with an erected crest and attitudes of rivalry and defiance; are shy and wild in breeding time, avoiding neighbourships, and haunting lonely lanes and commons; may even the very tops of the Sussex-downs, where there are bushes and covert; but in July and August they bring their broods into gardens and orchards, and make great havoc among the summer-fruits.

The black-cap has in common a full, sweet, deep, loud and wild pipe; yet that strain is of short continuance, and his motions are desultory; but when that bird sits calmly and engages in song in earnest, he pours forth very sweet, but inward melody, and expresses great variety of soft and gentle modulations, superior perhaps to those of any of our warblers, the nightingale excepted.

Black-caps mostly haunt orchards and gardens; while they warble their throats are wonderfully distended.

The song of the red-start is superior, though somewhat like that of the white-throat: some birds have a few more notes than others. Sitting very placidly on the top of a tree in a village, the cock sings from morning to night: he affects neighbourships, and avoids solitude, and loves to build in orchards and about houses; with us he perches on the vane of a tall maypole.

The fly-catcher is of all our summer birds the most mute and the most familiar: it also appears the last of any. It builds in a vine, or a sweetbriar, against the wall of an house, or in the hole of a wall, or on the end of a beam or plate, and often close to the post of a door where people are going in and out all day long. The bird does not make the least pretension to song, but uses a little inward wailing note when it thinks its young are in danger from cats or other annoyances: it breeds but once, and retires early.

Selbourne parish alone can and has exhibited at times more than half the birds that are ever seen in all Sweden; the former has produced more than one hundred and twenty species, the latter only two hundred and twenty-one. Let me add also that it has shown near half the species ever known in Great Britain.

On a retrospect, I observe that my long letter carries with it a quaint and magisterial air, and is very sententious: but, when I recollect that you requested stricture and anecdote, I hope you will pardon the didactic manner for the sake of the information it may happen to contain. (White, 1977, pp.92-96)

Letter from Gilbert White to Thomas Pennant
The sparrows have disappeared completely from the cities at least four years ago in Britain, as mobile phones grew in popularity. Third generation (3G) mobile phones were introduced in 2003, and there were over 65 million users in the UK by the end of 2005, more phones than people [1]. Did mobile phone transmitters cause the sparrows to disappear [2]?

Scientists at the Research Institute for Nature and Forests in Brussels, Belgium, have produced the first evidence that mobile phone base stations are affecting the reproductive behaviour of wild sparrows [3]. This finding comes as mobile phones are held suspect in the massive collapse of bee colonies all over the United States and Europe [4] (Mobile Phones and Vanishing Bees, SiS 34). Joris Everaert and Dirk Bauwens wanted to know if the low intensity microwave radiation from mobile phone base stations has any effect on the number of house sparrows during the breeding season. They identified 150 locations distributed over six residential districts in Gent, Sint and Niklaas in the province of East Flanders, where they counted the number of male house sparrows and measured the strength of electromagnetic radiation from base stations.

The study areas were similar, with abundant hedges, bushes, and other vegetation between the houses, and one or more GSM (Global System for Mobile Communications) base stations nearby. All locations were along small roads within the residential areas and at variable distances from the nearest GSM (mean 352 m, range 91-903 m, about 90 percent at 100-600 m). On days when the weather was favourable, so male sparrows would be out singing, the researchers went to each location between 7 and 11 am, and using binoculars, counted the number of male sparrows within a radius of about 30 m for a period of five minutes.

Simultaneously, they measured the maximum value of the electric field strength (in V/m) from the GSM 900 MHz and GSM 1800 MHz base station antennas during 2 minutes for each frequency band, using a portable calibrated high-frequency spectrum analyser.

Everaert and Bauwens found that the number of house sparrow males varied between zero and four at the different locations. The measured electric field strengths were seldom higher than 1V/m, and most often well below that value. Nevertheless, the spatial variation in the number of house sparrow males was negatively and highly significantly correlated to the strength of electric fields from both the 900 and 1800 MHz frequency bands and from the sum of these bands. This negative correlation was very similar within each of the six districts, despite differences in both the number of birds and radiation levels.

Fewer house sparrow males were seen at locations within relatively high electric field strengths of GSM base stations. For example, the mean number of male sparrows varied from 1.9 at the combined field intensity of 0.13 V/m to 0.8 at a combined field intensity of 0.247 V/m.

The results, though preliminary, do support the hypothesis that long-term exposure to higher levels of radiation negatively affects the abundance or behaviour of house sparrows in the wild. Fewer males singing would mean less breeding success.