

USING BIRD CALLS TO ASSESS OUR HEARING

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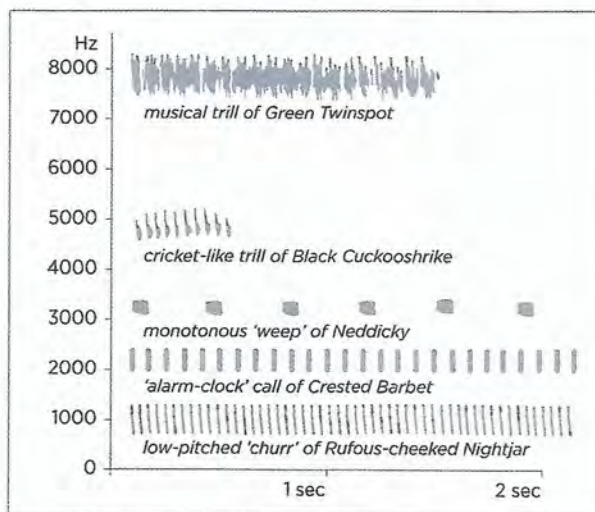
Being able to hear birds is fundamental to birding - it is by their calls that one detects the presence of such marsh skulkers as crakes, rails and flufftails, and it is by the same means that one is able to make sense of who is doing what in a dawn chorus emanating from the depths of a forest. The summer songs of male cisticolas enable us to easily distinguish between the plethora of look-alike species that live in our bushveld and grasslands, and overflying flocks of swifts, swallows, martins or bee-eaters alert us to their presence, high above, by their various easily recognisable contact calls. Birders with a hearing disability, like me, sorely miss not having access to these vital clues while birding.

Loss of hearing is linked to ageing in many instances (age-related deafness even has a name, 'presbycusis') but it can rear its head in people of all ages as a result of injury, exposure to prolonged very loud noise, reactions to certain drugs (quinine being one), and so on. When it does, it can both sneak up gradually or can happen suddenly. Often, hearing loss may take years before it is acknowledged and even then it may not ever be addressed - is it vanity perhaps, inertia to deal with the problem, or not knowing where to start? The longer it is left, and the longer one loses the reinforcement needed to maintain one's skills at knowing bird calls, the more these slip from one's grasp.

Where to begin? Do you know we can use the birds themselves to assess our hearing? Bird calls vary tremendously in pitch, ranging between 100 - 10 000 Hertz (normal human speech ranges between about 200 - 4000 Hertz) and if you can hear all the birds across the spectrum, from the booming of Southern Ground Hornbills to the trilling of twinspots, hearing aids are not for you.

As a simple test, can you hear the calls made by these five species - Rufous-cheeked Nightjar, Crested Barbet, Neddicky, Black Cuckooshrike, Green Twinspot? The sonagrams of the calls of these are shown here; all make relatively simple trilling or churring sounds that vary mainly in their pitch and in the spacing between their notes, from the very low-pitched nightjar call at the bottom to the high-pitched twinspace call at the top. Sonagrams (or spectrograms as they are also called - see www.earbirding.com for more information)

like these are an elegant way of depicting the sounds made by birds, with pitch being measured on the vertical axis (in Hertz) and the call duration running along the horizontal axis. If you are familiar with the 'weeping' call of the Neddicky, you'll see on the graph that it repeats its monotonous note 3 times/second at a pitch of just over 3000 Hz. Lower-pitched than this (at 2000 Hz) is the churring sound (of 15 notes/second) made by the Crested Barbet, and higher-pitched than this (at about 4500 Hz) is the cricket-like call of the cuckooshrike.



If you can hear all five - which I can't - you are not among those with a hearing problem. Without hearing aids I hear the nightjar and barbet fine, but Neddickys have to be close, or to call very loudly for me to hear them, and the cuckooshrike and twinspace are off my radar. Hearing loss in the high-pitched range, as I have, is the most frequent hearing disability but there are people who can't hear low-pitched sounds and others who have dead areas elsewhere in this frequency range.

I'll next discuss how one's hearing can be very much more precisely assessed by an audiologist and how the audiograms that present the results pinpoint where any weaknesses lie. I'll then go on to show how the most recent generation of hearing aids can compensate for areas where sound detectability has been reduced and describe my experiences with these.

Written in the interests of better hearing



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