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Ornithology from the Tree Tops

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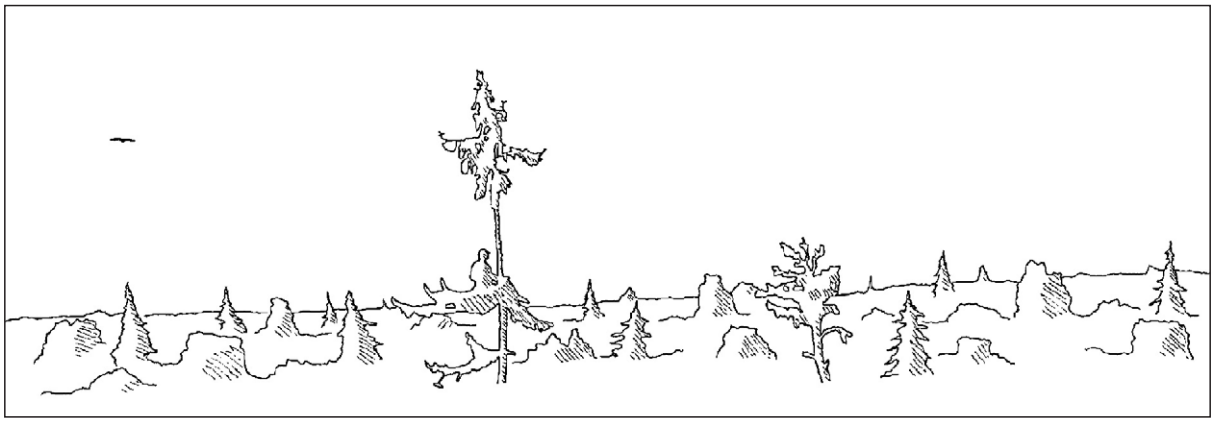
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Ornithology from the tree tops

Without food, we die. Not enough food, and we are in trouble. This lesson was already taught by Thomas Robert Malthus in 1789, with his *Essay on the Principle of Population as it Affects the Future Improvement of Society, with Remarks on the Speculations of Mr. Godwin, M. Condorcet and other Writers*, setting Charles Darwin on the trail of natural selection. In terms of birds, it was David Lack who made a strong case of the importance of food in the regulation of numbers. He was a biologist with mud on his shoes, who as a young man painstakingly studied birds in the field. *The life of the Robin*, published in 1943, was an eye-opener, but interestingly, for one focusing so single-mindedly on food as a decisive factor in the life cycle of birds, the chapter on food of Robins is short and contains no first-hand information. Today, with so much emphasis on timing of breeding seasons in relation to food peaks and changes therein caused by warmer spring temperatures, it is surprising to note that food studies of birds are still scarce, geographically restricted, often decades old (representative of today's diet choice?), restricted in scope (nestling diet, breeding season) or referring to small samples. This conclusion is based on a meta-analysis of nestling food of cavity-nesting passerines (Cholewa & Wesołowski 2011). In this regard, cavity-nesting almost invariably equates nestbox-nesting, a manipulation of wild birds that one would expect to facilitate close observation but even so has not led to a proliferation of food studies (Burger *et al.* 2011). For open-nesting birds, the information on food is incomparably unfavourable compared to the already inadequate empirical data for cavity-nesters. Lack's Robins are a point in case. A similar lack of information is apparent in Wood Warblers, a species that – in The Netherlands at least – has shown a considerable advancement of arrival and laying dates over the past decades (Bijlsma 2012). Not having studied their food myself, I searched the literature for information. One of the most detailed studies was based on an atypical breeding site, i.e. on the Wadden Sea Island of Vlieland, where in 1990 Gerlof de Roos spent 488 minutes watching parents bringing food to two nests. Even Hubertus von Treuenfels, one of the many ornithologists whose promising careers ended prematurely in the Second World War (in the words of Erwin Stresemann: 'Im Mai 1940, bald nach Beginn der siegreichen Offensive im Westen...für Deutschlands Zukunft gefallen.') and *Phylloscopus*-aficionado par excellence, only gives anecdotal information on nestling food.

The contrast with raptorphiles, for whom studying food is second nature, cannot be greater. The number of dietary raptor studies was already impressive when Uttendörfer published his magnum opus in 1939, but has exploded in the second half of the 20th century. Substitute geese or waders for raptors, and the studies become very detailed, including time budgets, digestibility and chemical composition of organic matter, intake rates, prey profitability, retention time and digestion efficiency (Zwarts 1997, Prop 2004). This information is available for the entire life cycle, be it on the wintering grounds, at stopover sites or on the breeding grounds. A quick scan across handbooks and monographs shows that such information is lacking for passerines, and specifically so for long-distance migrants whose lives in Africa – where they spend the major part of their life – are by and large a mystery.

Enters the amateur. The serious amateur has proven to be an indispensable asset to the collection of data on bird distribution (atlases), trends (monitoring), migration (ringing) and breeding biology (nest cards). But amateurs are not anymore what they used to be: for one thing, today's amateur is grey-haired or balding, as

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is immediately evident for anyone visiting a meeting or conference. The voluntary workforce is ageing! Nothing wrong with their dedication, but Richard Porter's reminder that the ageing process is accompanied with deteriorated hearing, and therefore should negatively impact the monitoring of breeding birds, cannot be downplayed. Perhaps ageing amateurs should realise that there comes a day that monitoring breeding birds is beyond their physical abilities, even when using a hearing aid. Rather than perceived as a disappointment, this may open a whole new world. Finally time to really study birds, rather than just count them. Food, for example. What exactly do birds eat, where do they forage, how efficient is foraging in various substrates, what are the seasonal and annual variations in diet and foraging habitat, and so on. Basic data that can be collected by watching, sitting on the forest floor, back against a tree trunk, telescope fixed on the twig invariably used by parent birds when approaching their nest. Or even from behind a window, in the comfort of a heated room. The ideal pastime of an ageing birdwatcher, one would expect, and why not for birders in general? A nice example of what can be achieved is given by Barbara and David Snow, who studied birds via timed watches of fruit-bearing plants. They kept 'some sort of balance between following a planned programme and maintaining flexibility'. Of course, fruit-eating or granivorous birds are easier to study than insectivorous birds (for example, food stuffs easier to quantify and identify; Berthold 1976), but that makes the study of insectivorous birds even more fun to do. The observer is challenged to outwit 'his' birds (which do not want to be observed) and to learn about insects (identification, ecology). I wouldn't be surprised to learn that many studies on mismatches between food peaks and timing of breeding cycles turn out to be too simplistic, that birds are way more versatile than we credit them for. Amateurs, also when not hearing as acute as they used to do in their prime, are the perfect candidates to collect basic data on food, foraging and feeding substrates. No need to become frustrated by reduced hearing skills.

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