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CAUGHT IN THE ACT: SABOTA LARK *CALENDULAUDA SABOTA BRADFIELDI* DRINKING WATER

*Derek Engelbrecht**

Department of Biodiversity, University of Limpopo, Private Bag X1106, Sovenga 0787
* Corresponding author: engelbrechtd@ul.ac.za

Most lark species are able to survive without drinking water. They do this by obtaining sufficient moisture through metabolic oxidation of their food, from moisture in their food, and/or by collecting dew on vegetation (de Juana *et al.* 2004; Donald 2004). There is a correlation between diet and the need to drink: those species that are predominantly insectivorous usually get enough water from their prey to obviate the need to drink water, whereas the low moisture content of seeds makes drinking water on a regular basis obligatory for the mainly granivorous species. However, even granivorous species can remain without water for long periods (de Juana *et al.* 2004). Species with a mixed diet fulfil their water requirements by subtle changes in the relative contributions of seeds and invertebrates in the diet. For example, the Dune Lark *Calendulauda erythrochlamys* preferentially feeds on seeds in the early morning and switches to invertebrates towards late morning (Cox 1983). Furthermore, invertebrates seem to become more important in the diet during times of drought. In short, larks seem to require very little water in their diet.

The Sabota Lark *Calendulauda sabota* has a mixed diet with seeds dominating its diet in the central Namib Desert (Willoughby 1971). There is not much known about its diet elsewhere in its range, but it appears to be primarily insectivorous (Engelbrecht, unpublished data). According to Willoughby (1971), the Sabota Lark has never been recorded drinking water and in several years of studying this species in the east of its range, I have never recorded it drinking surface water either. I was therefore most surprised when I observed

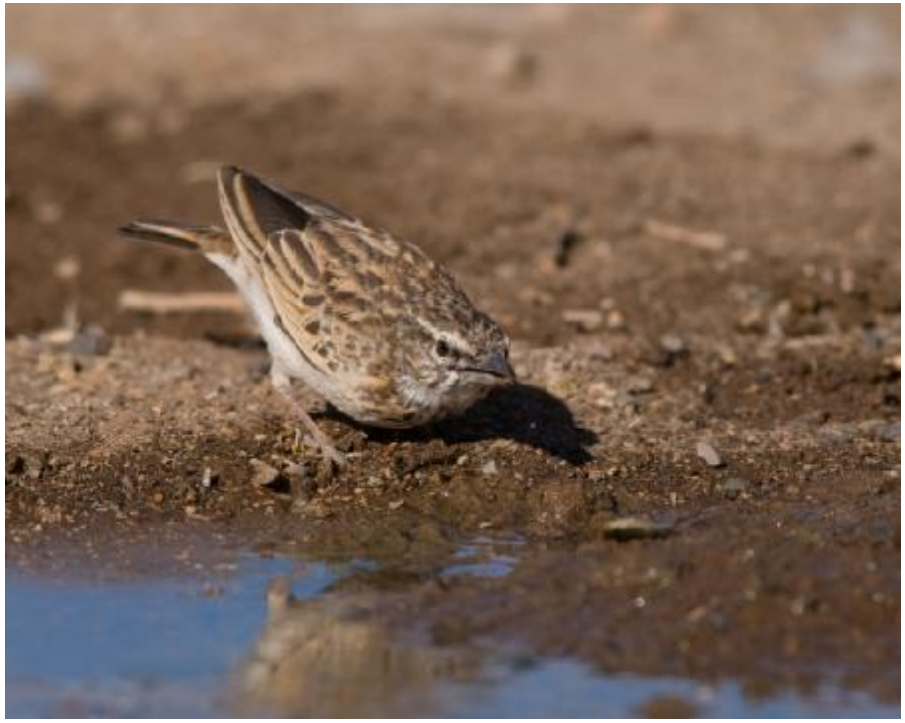

Fig 1 – A Sabota Lark, *Calendulauda sabota bradfieldi* drinking water near Brandvlei, Northern Cape Province.

numerous Sabota Larks drinking water at a trough on the farm Dik Doorns Noord 30 (30°22'59"S, 20°35'14"E) near Brandvlei in the Northern Cape Province, South Africa from 23–26 September 2009 (Figure 1).

During this time I caught and ringed 10 individuals. The birds invariably arrived and departed alone after drinking. Although the majority of birds arrived mid-morning, they were recorded at various times of the day ranging from early morning to mid-afternoon during the time I was there. According to my knowledge this represents the first reported record of the Sabota Lark, albeit of the subspecies *Calendulauda sabota bradfieldi* drinking water.

This observation raises some interesting questions.

i) Is this behaviour of the species really that uncommon that it has never before been recorded or is this behaviour just under-reported?
ii) Are the subspecies in the arid western and central parts of the country obligate drinkers, or could my observations be linked to dietary differences between the subspecies or a seasonal shift in diet as mentioned above?
iii) What is the social system of Sabota Larks in the Brandvlei area? Sabota Larks in the mesic parts of its range are sedentary and males defend permanent territories (Engel-brecht, pers. obs.). My observations of the Sabota Larks at Brandvlei suggest that they may not occupy permanent territories and may be locally nomadic as suggested by Dean (1997). The owners of the farm indicated that there had been no rain in the area for at least eight months prior to my observation. This suggests their presence in the area may not necessarily be linked to local rainfall events, but that the presence of a permanent source of water may create suitable conditions for long-term occupation in the area.
iv) Does this behaviour reflect underlying physiological differences between different subspecies of the Sabota Lark. The Sabota Lark complex consists of a thick-billed group comprised of the subspecies *Calendulauda sabota naevia, C. s. bradfieldi* and *C. s. herero* inhabiting arid and semi-arid savannahs and the Karoo and the slender-billed group (*C. s. sabota, C. s. waibeli, C. s. ansorgei, C. s. sabotoides* and *C. s. suffusca*) inhabiting semi-arid to mesic savannahs in southern Africa (Clancey 1966). These two groups are distinguished mainly bill depth but also by plumage differences. It now appears that there may also be physiological differences between these two groups.

Through the years there have been regular calls for the recognition of *C. sabota bradfieldi* as a separate species based on plumage and morphological differences. This report suggests that in addition to the foregoing, there may also be ecophysiological (e.g. the need to drink water from time to time) and behavioural (i.e. a social system which allows for local movements and non-territorial behaviour for at least parts of the year) differences between the thick- and slender-billed groups. I would like to add my voice to those who call for confirmation of the taxonomic status of this subspecies using genetic data.

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