

# mud-gathering

BY BURCHELL'S SANDGROUSE

Photographs suggest that some sandgrouse's belly-wetting activities may be more complex than originally thought.

**B**urchell's Sandgrouse *Pterocles burchelli* inhabit semi-arid areas in the Kalahari region, in the west of southern Africa. They breed from April to October, laying a clutch of two or three eggs in a small scrape on the ground, usually far from water. Both the adults and the precocial young eat only the small, hard seeds of annual plants, usually legumes. Because this granivorous diet has such a low water content, the birds must drink regularly. The chicks do not begin to fly until they



are several weeks old, and usually do not undertake the long journeys to water until they are nearly two months old. As is well documented, sandgrouse have solved the problem of getting water to their chicks with the development of specialised feathers on the belly of the male adults. These feathers have fine, closely spaced filaments that absorb water through capillary action. When they land at a waterhole to drink, males with dependent chicks perform a characteristic behaviour known as belly-soaking: they walk into the water,

raise their belly feathers, and rock in the water, tails held upright, to give the ventral region a good soaking.

In mid-June 2007, I was observing and photographing this behaviour at a waterhole in Tswalu Kalahari Reserve, when I noticed that many of the birds, after belly-soaking, flew to a salt lick about 15 metres from the waterhole. There they sat and rubbed their bellies into the red Kalahari soil around the lick until their feathers were thickly caked with red mud. The sandgrouse then took off in a very direct flight, presumably back to their chicks. This type of behaviour has not previously been described, and I only realised what I had witnessed when I reviewed my images that evening.

Sandgrouse dust-bathe frequently, but this deliberate behaviour was radically different from any form of dust-bathing, and the images clearly show a thick layer



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*In what is apparently a previously unobserved behaviour, a male Burchell's Sandgrouse soaks his belly feathers (above), then proceeds to rub them in the soil around a salt lick (left). His belly well caked with mud, the sandgrouse flies off (below), presumably to the chicks.*

of mud, not dust, caking the feathers. After discussing my observations with a few specialists, I surmise that because the birds were utilising the soil next to the licks, they were in fact selecting soil rich in minerals. This would seem to give an additional function to belly-soaking, supplying mineral supplements to chicks.

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