

SHADOW



Why do birds sometimes attack windows or car mirrors? Are they demented? **By Joël Roerig**

BOXING



For some people it is a hornbill flinging itself into a window of their Kruger chalet with a mighty thud as they are trying to catch an afternoon nap. For others it's a sparrow or a thrush hovering frenetically at the side mirror of their car. For me it was a pair of collared sunbirds clowning around in front of one particular window of our house in Hoedspruit that made me wonder just what these birds which seem obsessed with their reflections were doing.

MIRROR IMAGE
Some birds, like the collared sunbird, are drawn to their reflections.



A variety of birds are known to interact with their reflections, including babblers, sparrows and hornbills.

The metallic yellow and green sunbirds, darting and frantically chirruping and pecking at the glass, provided plenty of questions.

Were they trying to come in? What was so special about that one window in particular? Were they hurting themselves in the process? Should I do something to stop them? Why was it that they simply couldn't leave their reflections alone?

I had seen other birds acting in similar ways, including ground-hornbills in Mapungubwe with an unhealthy interest in my shiny vehicle and an arrow-marked babbler noisily disagreeing with its reflection in my car mirror in Marakele. I began to research the phenomenon in books and scientific papers with the view to writing it up for the e-journal *Ornithological Observations*. I asked fellow nature lovers to send me records of birds shadow boxing, as the behaviour is called. I wanted to know what 'my' sunbirds were up to, why both the male and female were so active and which other birds behaved in the same way.

Stranger danger

Scientists widely agree that birds attacking, fighting, calling, singing, staring, pecking, displaying or flying at their reflection, perceive the image as a stranger. The only recorded exception to this is the Eurasian magpie, which recognised itself in a mir-

ror during a experiment, something only animals such as elephants, apes and dolphins had been known to do.

Besides birds, shadow boxing has also been recorded in stickleback fish and mammals such as sea lions and monkeys. The behaviour is usually part of a territorial defence routine for a bird, so it is no surprise the behaviour is particularly prominent during the breeding season.

I discovered that legendary Eastern Cape naturalist Jack Skead had described the behaviour of 'my' collared sunbirds in a 1962 paper. He wrote that the sunbird "becomes a great shadow boxer on windowpanes ... where opportunity occurs, such as when riverside or seaside cottages are built into the dune- or river-forest bush." We lived in a riverine area at the time. Collared sunbirds pair for life and occupy a territory throughout the year, which explains why the behaviour lasted for months, the male usually being more vocal but the female often more active and seemingly spurring him on by hopping around in a bush opposite one particular reflective window.

Literature on the topic is scarce and scattered. Besides an illustrated article by amateur Australian ornithologist Keith Alfred Hindwood in 1941, the paper I went on to write was the first ever literature review worldwide. *Ornithological Observations* is part of a citizen science project by the Animal Demography Unit at the University of Cape Town, in which professional and amateur birders can

Should we try to prevent shadow boxing?

Shadow boxing can be prevented only by removing the reflective property of the glass. One of the ways to do this is to put transparent clingfilm against the outside of a window. There is one record of a pin-tailed whydah that apparently died shadow boxing, but in general it doesn't seem that birds hurt themselves. When you have a hornbill determined to peck his 'rival' to death at your window though, it may be better for your glass and sanity to intervene.

submit interesting observations of bird behaviour.

Where science was lacking, 'citizens' stepped in and many people sent me their experiences or photos. Seth Musker wrote to me about a long-billed crombec "attacking its reflection in a car's side mirror" at Geelbek in the West Coast National Park. Thomas Hohls reported a pair of Cape robin-chats "having a go at my rental car mirror" in the same park. He also mentioned many instances of shadow boxing in Kruger, including hornbills, dark-capped bulbuls, crested barbets and Southern ground-hornbill. "Although the latter just blew himself up and didn't actually have a go at the car!"

I am not sure if Thomas realised how lucky he was. In 2008, a group of ground-hornbills inflicted considerable damage on a brand new Land Rover Discovery in KwaZulu-Natal's oNgoye Forest. Michele Greve, daughter of the man who owned the vehicle, described on SABirdnet how they dented and scratched all side panels, some of the bonnet and managed to dislodge part of the bumper on the back of the car.

The woodland kingfisher and a few African paradise-flycatchers, two species known for their ferocious territorial defence, have been the only shadow boxing South African migrants I have recorded so far. After sunbirds, the hornbill group includes the most species that shadow box, with Kruger records mostly reflecting the yellow- and red-billed culprits and Kwa-

The female seemed to spur him on by hopping around in a bush opposite one particular reflective window.



DUNCAN BUTCHART

Author Joël Roerig was prompted to investigate the behaviour after he noticed collared sunbirds performing outside one of his windows.

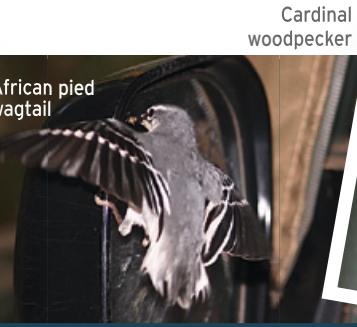
Zulu-Natal records mostly coming from crowned hornbills. I also have shadow boxing records of African grey hornbills in Pretoria, Monteiro's and Damara hornbills in Namibia, and rhinoceros and oriental pied hornbills from as far as Singapore.

Based on literature study and people's private records, my ever-growing database now contains 173 bird species interacting with their reflections, of which 89 were recorded in Southern Africa, with 10 species of sunbirds topping the list. Species most often recorded are Cape sparrow (16 times), crested barbet (15), Cape wagtail (13) and collared sunbird (12). Females sometimes engage in the activity, especially some sparrows and sunbirds, but also the groundscraper thrush, Southern boubou, black cuckoo-

shrike, grey tit and even an ostrich.

Shadow boxing occurs throughout the year, but October, when many local birds establish territories, seems to have by far the most records. Some birds just can't get enough of one particular window, like 'my' collared sunbirds. A Gauteng pin-tailed whydah was observed attacking the same windows for years. A Knysna woodpecker at the Canon Rocks Caravan Park in the Eastern Cape is a famous re-offender, attacking car mirrors of campers for years on end. A male Cape sparrow was said to attack a bedroom window "for at least 20 years", suggesting successive dominant males performing the same ritual at the same site, because the oldest Cape sparrow ever recorded was 10 years and eight months old when it died. ♀

Bennett's woodpecker



African pied wagtail



Cardinal woodpecker

UNDER SIEGE

Duncan Butchart, who did the illustrations for this article, saw a male Bennett's woodpecker "going crazy at its reflection in my car windscreen" in Satara. Kruger visitor **Lisi van Deventer** reported "an orange-breasted bush-shrike attacking my car's side mirror". **Neels Roos** described an African pied wagtail attacking a sliding door in Shimuwini and a yellow-bellied greenbul a hut window at Sirheni. **Lia Steen** had a Bennett's woodpecker and woodland kingfisher engaging their reflections on her bakkie at Pretoriuskop. **Vincent Ward** noted shadow boxing-like behaviour at a mirrored window at Lambert's Bay's Bird Island in kelp gull, African penguin, Cape cormorant and Cape gannet.

GET INVOLVED

- To learn more about shadow boxing, download Joel's paper from the e-journal *Ornithological Observations* at <http://oo.adu.org.za/content.php?id=83>
- Submit shadow boxing sightings and contribute to the complete database by visiting shadowboxingbirds.wordpress.com
- To read about interesting historic records, go to www.wildcard.co.za and type "Shadow boxing" in the search box.

DUNCAN BUTCHART, MARINA NAUDE,
MARK CITTLEY, DAVID CULLOW