

NOTES ON HONEYGUIDES IN SOUTHEAST CAPE  
PROVINCE, SOUTH AFRICA

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Now that I am no longer living on a farm it seems advisable to collate what little data I have accumulated on honeyguides and add it to the scanty knowledge we have of these birds, in this instance the Lesser Honeyguide, *Indicator minor minor*, the Greater Honeyguide, *Indicator indicator*, and Wahlberg's Sharp-billed Honeyguide, *Prodotiscus regulus regulus*.

The farm "Gameston" where these records were taken lies in the grass- and bush-covered upper reaches of the Kariega River, 15 miles southwest of Grahamstown, Albany district, Southeast Cape Province, South Africa. This veld-type, known as "bontebosveld," spreads over a large part of the southeast cape.

Although I have known the birds for many years the written records cover a period of about five years.

## (1) THE LESSER HONEYGUIDE

*Ecology.*—This species prefers the scrub bushveld and more open acacia veld, sitting among the inner branches of the trees and bushes but making conspicuous flights in the open from one patch of bush to another.

*Status.*—I have recorded them in January, February, March, July, August, September, and December. This suggests they are resident and not migratory. They are very restless birds being seldom seen for more than an hour or so and, in my experience, usually one at a time, even when they parasitized a nest of Black-collared Barbets, *Lybius torquatus*, in our garden. But from July to September, 1949, two often consorted together, attracted, I think, by combs of honey protruding from the garden bee-hives. There were no barbets in the garden then.

*Field Characters.*—There are no striking features; their dull coloration is lightly offset by the golden sheen seen on the back when the light is good. The white outer rectrices are noticeable in flight, especially when fanned prior to alighting. The flight is the exaggerated, rather lackadaisical switchback so typical of honeyguides. The bird is restless, seldom sitting still for long.

*Calls.*—The birds are rarely heard. Even when two were together and one bird chased the other energetically they made no sound. Twice only have I recorded call notes. On February 15, 1947, and on

September 13, 1947, the calls were identical—a pretty, stuttering trill, quiet and not accented at all—‘*Tttrreee.*’

The call of the nestling is a quiet, rolling, squeaky noise heard continuously throughout the day and even into the night. I heard it at 8:15 p. m. when the nestling was 14 days old. It closely resembles the call of the chicks of its host, the Black-collared Barbet, and also the chick of the Greater Honeyguide. As the chick gets older the calling becomes less persistent.

*Behaviour.*—I have seen no displays whatever. The general disposition of the birds is one of “lazy indifference.” When the two kept company from July to September, 1949, they were, for the most part, amiable but sometimes one for no apparent reason would attack the other (perhaps sitting in another tree) and chase it up and down the garden two or three times until the chased bird, closely followed, dived into a shrub where the two would sit panting heavily. Either the display would then cease or the aggressor would attack again. All this was done in silence.

The following records relate to the honeyguide’s behaviour at or near the barbets’ nest.

On February 15, 1947, the barbets showed no concern at the presence of a Lesser Honeyguide in the garden. The next day the honeyguide kept flying toward the barbets at their nest. They shrieked continuously and flew at it in attack, but the honeyguide merely moved away leisurely and returned immediately when the barbets flew back to their nest-tree. This lasted five minutes and occurred when the barbets’ eggs were well incubated.

On March 2, 1947, I saw one arrive in the garden and fly directly, in the absence of the barbets, to the nest-hole which now contained barbet chicks. It peered in at the entrance a few times and then examined another hole which one of the barbets used for sleeping. There had been no honeyguide eggs in this brood.

On September 13, 1948, the barbets were not nesting or using the holes in the garden for sleeping, but when two were feeding in the garden at the time a Lesser Honeyguide appeared they immediately reacted—shrieking “alarmedly,” something they never do to other birds. The honeyguide was in no way perturbed and in spite of the protestations casually looked into the old barbet nest as it passed by.

*Guiding.*—I have never known of this habit in this species.

*Parasitism and Development of Young.*—In the instance when the Black-collared Barbets were parasitized, I recorded the laying of the first egg in their nest on September 29, 1947. The second was laid on September 30, but unfortunately my observations were interrupted; on October 11 I found four eggs in the nest. On October 17 three eggs hatched and in the early morning of October 18 all four chicks were out.

Because one of the barbets remains in the nest-hole continuously as soon as the first egg is laid, the computation of an incubation period is difficult. There is no means of knowing how many days the bird

spends on the eggs, but it may be noted that all eggs hatched within 12 to 24 hours of each other. If we arbitrarily take from October 1 to October 17 as a rough incubation period the time is 16.5 days. This suggests that the incubation periods of the barbet and the honeyguide may be of similar duration, which is contrary to the situation between cuckoos and their hosts. Also, because there were four eggs in the nest, it would seem that the honeyguide did not remove a barbet egg when depositing her own because the normal clutch of these barbets is three.

All the eggs, which I did not handle, were plain shiny white and were of similar or identical size.

After the hatch it was impossible to see what was happening in the nest-hole because one or other of the barbets always guarded the nest for the first six days. On October 25, I could see only one chick in the nest so the other three chicks must have disappeared between October 17 and October 25, that is within the first week. The lighting in the nest was too bad to see whether the chick had hooks on the mandibles, but on the fifteenth day I noted "seems to have a hook at the end of upper mandible."

If we assume the hatching date of the honeyguide as October 17, the chronology of nestling development is as follows:

*1st day.* Blind; naked; skin pink. *12th day.* Still blind and unfeathered. *13th day.* Still blind; quills just appearing through skin. *14th day.* Eye three-fourths open; nostrils prominent and round; chick looks stubbly all over; grabbed lighted torch bulb lowered at end of cord. *16th day.* Saw chick in nest grab and lustily shake adult's wing. *17th day.* Chick feigned death when I looked in. Possibly first fear—reaction; feathers out of quills on abdomen and flanks, but not on back of head. *21st day.* Feathers out of quills on back. *22nd day.* Chick still maintains continuous calling, but stops now when I look in; beak still pink. *25th day.* Chick well feathered; grey below; light and dark brown above; beak pink; outer rectrices white. *26th day.* Chick almost as big as adult barbet; heard it making quiet peeping noise at 12:30 a.m. *28th day.* Saw chick defecate through adventitious hole in floor of nest-tunnel which is on a 30-degree slope from horizontal. This hole is about 6 inches from the bottom of the nest. *30th day.* Chick still calls quietly for long periods but not so continuously. *33rd day.* Beak still pink near gape, but horn-colored at tip; chick more silent. *35th day.* Makes rolling call when it hears foster-parent approaching with food and continues thus for half a minute after feeding; takes the food at the entrance. *38th day.* On looking in tonight I found the two barbets in the nest but not the honeyguide; it was there last night so must have emerged during the day.

The following day I saw the barbets in the bushveld, 300 yards from the nest. Both made the anxious '*snaar*' call which they use to denote "apprehension" and possible danger when they have chicks.

I could not find the honeyguide, but from the barbets' behaviour I have little doubt it was at hand.

But as mentioned, the honeyguide did not return to the nest-hole that night as the barbets' own chicks would have done, and the next morning I saw the barbets emerge from their hole and fly away in the opposite direction from where I had seen them with their honeyguide the previous afternoon. Never again did I see the chick, and the subsequent activities of the barbets gave no hint of continued interest in it. From this it must be inferred that either the honeyguide had acquired immediate independence or had fallen to some predator. Its period in the nest had been 38 days against the 33 to 34 days of barbet chicks.

Although a pair of barbets inhabited this nest-hole continuously for three years, from September 9, 1945, to mid-September 1948, only once in three nesting attempts were they parasitized.

There was no indication as to how, or if, the young honeyguide disposed of the young barbets. I found no remains below the nest-hole and no bodies within. If the young are forcibly ejected, cuckoo-wise, they would have had to be trundled up a 30-degree slope for 19 inches, the depth of the nest-hole. Is a blind and feeble honeyguide chick capable of such a feat? Alternatively, if a 30-degree slope is within its scope could it perform a similar feat in a perpendicular nest-hole in which it might well find itself? This seems beyond its powers. One wonders whether the hooked points on the beak are used to kill the nest-mates whose bodies are then removed as debris by the foster-parents during nest sanitation.

*Food.*—The occasional visitors to the garden always flew to the bee-hives, settled at the entrance for a moment or two and then flew away. At the time the two birds were together, there were several honeycombs protruding from the hives. These were empty except for a few well-developed grubs in some of the cells. I removed a few of the combs and tied them to the branches of a tree where I could observe the birds' actions more easily. At first both approached the combs with the utmost caution, fluttering "nervously" above them or springing up in fright on touching them. However, they soon gained confidence and fed hungrily. One bird began eating at 2:58 p. m. and fed unceasingly until 3:22 p. m. (24 minutes). It then flew to another tree but three minutes later returned to its comb and fed for another 20 minutes, making a total feeding period of 44 minutes. The other bird fed at its comb for only 10 minutes. They ate pure wax, which they "nibbled" from the edges of the combs, and ignored the grubs in the cells. A day or two later I noticed that the grubs had

disappeared but these may have been taken by other birds, perhaps Fork-tailed Drongos, *Bhuchanga adsimilis*. Although dead bees always lay scattered near the hives I saw nothing to indicate that the honeyguides fed on them. The numbers of dead bees never seemed to diminish when the birds were about; nor did I ever see the honeyguides hawking live bees near the hives.

After a few days' feeding at the combs, the birds, normally timid, became much bolder and often entered an old box lying near the house steps, which contained the remains of wax from another hive. They also came to the bird-bath to drink but I never saw them bathe.

To the honeyguide chick the barbets fed the same food they give to their own young, that is, both insects and fruit.

Throughout its stay in the nest the young honeyguide defecated in the nest tunnel. These feces must have been removed by the barbets at first because the nest was clean after the chick's departure. But through two adventitious holes in the tunnel floor feces often fell. They contained the hard chitinous parts of insects and also the pips of youngberry fruit which grew in the garden beside the nest-tree. In this respect the honeyguide differed from barbet chicks who reject the hard insect material and pips before swallowing and whose feces, therefore, show nothing hard and undigested.

I sent the insect material to Mr. J. Sneyd Taylor, Government Entomologist at Fort Beaufort, Cape Province, who commented:

" . . . seems to consist mainly of beetles of the chafer type, including those bright-colored ones found on flowers (*Scarabeidae-Melolonthinae*); also one *Cerambycid* (*Longicorn*). It is curious that although so much of the insects remains, there is little trace of the brightly coloured elytra."

*Territory.*—I saw nothing to indicate any territorial instinct in the adult honeyguide. Indeed, because of their uncommonness, it would appear almost impossible to solve this question. I believe the birds have an extensive range, and they are so scarce that the possibility of clashing with others of their kind is remote.

## (2) THE GREATER HONEYGUIDE

*Ecology.*—This form prefers the dense bushveld but ventures into less dense veld at times and, rarely, into openveld if there are isolated patches of bush.

*Status.*—It is apparently a resident. I have recorded them in all months except April, May, and October, with single immature birds noted in January, February, and July.

This species is much commoner than the Lesser Honeyguide but is not by any means a common bird. It is of solitary disposition, seldom remaining in any one place for long. Although we had three beehives in the garden the birds never haunted the vicinity. They would drop down to the hive entrances momentarily, in passing, but soon moved on.

They appeared quite unexpectedly at any time and seemed to roam about the veld without any fixed intentions.

*Field Characters.*—Usually the first intimation of a bird's presence is the chattering guiding call, but the plumage offers no ready and immediate field character. Closer inspection reveals the white ear-coverts, yellow beak, and yellow shoulder-patches of the male; but the yellow patches can be deceptive at times. The young are yellow below, which identifies them more readily, but I have always found that close scrutiny is necessary to satisfy myself that I have judged the sex of other birds correctly. The typical white outer rectrices of the honeyguides are present, as are the exaggerated undulations in flight.

*Calls.*—The guiding call is an unmusical, "unoiled," rolling call 'ch, wrrrt—ch, wrrrt' etc., slow and repetitive, sometimes in an "anxious" tone if the observer is not following as assiduously as the bird would wish. At times it seems to slacken a little, as if the bird were losing interest, but soon returns to normal. There is no body movement or excitement during the calling, the bird sits quite still, often hunched up.

The guiding call commences unexpectedly and is directed either at individuals or groups. I have been walking through bush on my own and suddenly heard the bird call behind me. Often when working with a gang of natives chopping wood or hoeing maize I have heard a bird calling to us.

In January and February, 1948, a young bird often visited the garden. Its call was a pretty, tripping and musical 'prrrreee-prōō' (ōō as in coot) made with the head brought sharply forward and downward. I have heard this in July, too. On rare occasions I have seen a female flying about the garden examining the empty nest-holes and making a soft 'charracharracharra' on alighting.

The call of the nestling is husky and perpetual, just like that of the Lesser Honeyguide nestling. This immature Greater Honeyguide call is not dissimilar to the guiding call of the adult but of course undeveloped. It can be heard, greatly accelerated and intensified, 75 yards from the nest whenever a foster-parent approaches with food. This happens during the later days in the nest.

*Behavior.*—Because I have never seen more than one at a time there are no displays to report. It seems a most inconspicuous bird with no behavior characteristics worth comment.

In January, 1949, when one arrived in the garden it was promptly and determinedly attacked by a Brown-hooded Kingfisher, *Halcyon albiventris*. A pair of these kingfishers was often in the garden but never attacked any of the many other birds there. Their nesting and sleeping hole was tunneled into an earth bank 150 yards from the garden and their action towards the honeyguide made me wonder whether they had recognized it as an enemy in the way barbets recognize Lesser Honeyguides and weaver-birds recognize cuckoos. The kingfishers were not nesting at the time.

*Guiding.*—I have known guiding to take place in May, June (twice), July, August, and November, that is in every season. It is done by both sexes and at any time of the day.

The general plan is for the bird to call from the top of a bush or tree in sight of its "victim." When followed, it allows the person to get within about 10 yards and then flies to another perch not necessarily in sight of its follower, in fact more often not. There it awaits the person's arrival and the process is repeated. On arriving at the hive it sits either above or slightly to one side, calling as before. Should the person get too close to the bird it flies discreetly to a safe perch but never far. There are slight individual variations in technique.

I have never encountered an immature bird guiding nor have I seen more than one bird at a hive. Flocks have never come my way and I have never heard anyone mention them. The natives on the farm, when asked, repeated the story of birds guiding people to snakes but in the absence of actual instances this seems illusory. In addition they referred to people being led to dead animals, but this I believe to be apocryphal, especially in view of my experience as a farmer that natives are singularly inept at finding dead beasts in the veld. It is certain that natives make good use of honeyguides in finding beehives because, apart from honey being a great delicacy, it is highly regarded for the fortifying and intoxicating stimulus it gives to their home-brewed beer.

I have often wondered whether these honeyguides call to baboons, and if so whether the baboons appreciate their intentions.

Below I list seven personal experiences of guiding, both successful and unsuccessful. In no instance did I remove the combs and offer them to the birds.

No. 1. May 12, 1941. Led to a thicket where the bird sat seven feet above the hive built in a hole in the ground; bird persisted with its calling while I was at the hole; guided for 20 yards in three minutes.

No. 2. November, 1943. Bird started calling at edge of wooded gully (kloof); I knew of a beehive in an old tree-stump near by, and the bird led me to it through the thick bush of the kloof; natives had opened this hive in the past but the bees had always remained; the bird sat on a bough a little above the hive while I examined the spot; guided for 20 to 30 yards in about five minutes.

No. 3. July 18, 1945. In dense bush one called 10 yards behind me; I followed, and the bird flew 68 yards to the next perch, then on another 21 yards where it settled on the lower branches of tall, scrubby bushes growing beside a dam; while I was crawling about in search of the hive the bird moved in a narrow circle but no sign of bees could I find. Then it flew out of the thicket, crossed the dam, and settled on a dead tree. I walked towards it but it flew straight back to the same area in the thicket. Soon it ceased its calling and disappeared; I gave up too. Next day I revisited the spot. There was no sign of the bird and still less of the bees. The day after, I searched once more and, quite by chance, found a hive about 11 yards from where the bird had so consistently indicated and in a position over which the bird had flown on its way to the thicket. Why it did not settle on the bushes beside the hive, as it might well have done, must remain unanswered. Guided for about 100 yards in 20 minutes.

No. 4. June 15, 1949. This was the longest "guide" I have known, with the bird calling strongly from perch to perch before pausing in a large bush where its calls grew quieter. After 10 or 15 minutes the calling ceased and the bird disappeared. I searched the bush and its surroundings with the utmost care but without finding a trace of bees. Four times I returned on subsequent days, twice with reliable native boys who are adept at finding hives—all without success. It must have been a false alarm. At one stage during guiding the honeyguide was chased for some distance by a Cape Glossy Starling, *Lamprocolius nitens phoenicopterus*, but it soon returned to its course which I do not think was affected by this interlude. At one perching site the bird clung to the perpendicular branch of a tree, woodpecker-wise. Guiding distance was about 320 yards in 10 to 15 minutes.

No. 5. June 23, 1946. A native boy and I were walking through the bush when we heard and saw a female honeyguide calling from atop a tree eight feet high. We walked toward the bird which flew away, calling, and settled on another tree 36 yards away. We walked up to her but she flew straight back to her first tree. The signs below seemed most unpropitious but we found a small antheap barely protruding above ground level. In this was a small slit, slightly larger than the body of a bee, through which a slow stream of bees was entering and leaving.

No. 6. December 12, 1946. Although the birds often settle at the hives in the garden only once have I heard them give the guiding call there and I do not think it was directed at anyone. It is rather strange that with people constantly coming and going near by, the birds should not try to attract them.

No. 7. August 26, 1948. I was in dense bush working with a gang of chattering natives whittling rough poles. Suddenly an apparent female settled on top of a bush before us, calling. She must have been attracted to the sound of voices. I promptly followed her call, via three perches, to a kloof where the calling stopped and the bird disappeared. During guiding the bird settled on the ground for a moment, something I had never seen before.



At one stage I thought the bird was guiding me to the hive mentioned in Number 2 above, as it may well have been doing, for the hive was about 50 yards down kloof from where the bird stopped calling.

When I returned to the natives they were most emphatic that the bird could only have been "telling lies" because no bees would be out in such cold, windy and over-cast weather. That may be true but that hive had a wide opening with portions of comb visible from outside so that the bird might well have known of the hive's whereabouts from past experience without necessarily seeing the bees on this occasion. I was guided for about 100 yards in four minutes.

There are a great many wild hives dotted about the veld and in kranses (cliffs), so that the scarcity of honeyguides cannot be due to lack of bee-food or its by-products. The birds do not haunt the vicinity of hives, as well they might. I was out in the veld every day of the year but the above scanty records emphasize how infrequently the birds were encountered. Had it not been for the garden hives I would have seen much less of them.

The question arises: How do the birds find hives? Do they follow the bee flight-lines? Do they encounter hives fortuitously? Do they remember the locations of hives found by them in the past? Probably all these apply.

After examining a hive and not rewarding the bird for having led me thereto, I have never seen it show "annoyance."

*Parasitism and Development of Young.*—In August, 1948, the Black-collared Barbets, after three years' sojourn, deserted their nesting and sleeping hole in the garden. This remained untenanted until December when a pair of Yellow-throated Sparrows, *Petronia superciliaris*, arrived and built their lichen nest at the bottom of the hole. Several factors prevented regular observation of their nesting habits. Firstly, they are exceedingly "nervous" birds who desert their nests with little provocation. Secondly, their nest, built at the bottom of the tunnel, covered most of my observation "window" and this meant too great a disturbance of nesting material. Thirdly, these sparrows build a bower of feathers over the nest-cup which makes observation by the torch-and-mirror method impossible. Therefore, I left the sparrows alone hoping to encourage their "confidence" for the future but little expecting them to be parasitized.

However, on December 12 I heard what sounded like the constant purring of a honeyguide chick in the hole. I opened the window and with difficulty extracted a young honeyguide. The feathers were just emerging from the pointed quills all over the body; the back and wings were olive-brown; rump white; abdomen and breast yellowish-white, and throat bright yellow; eye about a quarter open. Based on the

Lesser Honeyguide development already described, this chick would have been about 16 days old.

On the "heel" of the tarso-metatarsus was a little rosette of scales similar to that on a Black-collared Barbet but which I did not observe on the Lesser Honeyguide, although it might well have been there. But, most interesting, were the hooks on the tips of both mandibles. The base of the upper hook, where it joined the beak, extended slightly over the upper mandible and, protruding therefrom, in a position where the egg-tooth would occur in a normal beak, was a minute conical protuberance which had probably served the purpose of an egg-tooth.

The chick left the nest on January 5 and never returned. The sparrows left at the same time and were not seen again. If the chick was 16 days old when I first saw it, then the nestling period would have been about 40 days which is close to the 38 days of the Lesser Honeyguide. Therefore, when they leave the nest the birds can be considered as well-developed.

I have never seen the egg of this bird; nor did I see any signs of honeyguides haunting the sparrows' nest at the time of egg-laying.

In some way the young honeyguide must have disposed of the young sparrows because there was no sign of them or their dead bodies in the nest or on the ground below.

*Food.*—Although I have frequently seen them settle at the entrance to the garden hives I never saw them feed there, as the Lesser Honeyguides did.

They are nest robbers, a fact disclosed when I went to investigate the anxious screechings of a pair of nesting Bar-throated Apalis, *Apalis thoracica*, in a thick patch of bush. As I approached the bush, I saw a Greater Honeyguide fly out with an egg in its beak and disappear into a kloof. I followed but could not see the bird. After a minute it emerged without the egg and flew towards the Bar-throats, but on seeing me it veered away. I searched inside the kloof without finding the remains of the egg which perhaps was eaten by the honeyguide. When I examined the apalis' nest it was empty. As the honeyguide was a male it could not have intended laying there. These warblers are parasitized by Klaas's Cuckoo, *Chrysococcyx klaasi*, but I have not heard of honeyguides using them.

The only food I could identify as being fed to the chicks was a grasshopper. Not even the droppings were available because the sparrows removed them promptly during nest sanitation.

*Territory.*—From the remarks passed from time to time in the text it is obvious that to impute territory to these birds is almost impossible.

## (3) WAHLBERG'S SHARP-BILLED HONEYGUIDE

*Status.*—It is much less common than either the Lesser or Greater Honeyguides, and because of its likeness in the field to the Dusky Flycatcher, *Alseonax adustus*, can be easily overlooked. It seems to prefer dense cover. Whenever I have tried to stalk one when it has emerged it has always dived into a bush, scrambled through, and then flown out on the opposite side.

I have recorded it in January, June, September, and October which suggests that it is resident, but it must be a very "restless" bird. I have seen only singles and those for brief spells, perhaps five minutes, at a time.

*Field Characters.*—A drab bird with no distinctive features. It has both the white outer rectrices (seen in flight or on alighting) and also the exaggerated undulating flight common to the other two honeyguides dealt with here. Given a good view of the bird, an extremely difficult proceeding, the slow bobbing of the head is a good recognition mark. It is a sort of circular rolling of the head as though some constricting force around the neck were causing the bird to ease the discomfort by moving its head all the time.

*Calls.*—None heard.

*Guiding.*—None seen.

*Parasitism.*—None encountered.

Although the Scaly-throated Honeyguide, *Indicator variegatus*, is listed as occurring in the Albany district and cannot, therefore, be far from "Gameston" I never saw it at all.

"Gameston," *Highlands Rail, Cape Province, South Africa, May 2, 1950.*