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NOTES ON THE SOUTH AFRICAN FORMS OF THE COLLARED SUNBIRD *ANTHREPTES COLLARIS* (VIEILLOT), WITH THE DESCRIPTION OF A NEW RACE

by

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In the *Bull. Brit. Orn. Club*, vol. 80, 1960, pp. 65-67, I described a new race of the sunbird *Anthreptes collaris* (Vieillot) from eastern Southern Rhodesia as *Anthreptes collaris patersonæ* Irwin, which was indicated as differing from *A.c.zuluensis* (Roberts) and *A.c.zambesiana* (Shelley) by having the sides of the breast and flanks strongly washed with olivaceous green, and with the yellow of the abdomen more restricted to the centre. Since the appearance of this description, additional collecting by the author in eastern Southern Rhodesia and the Limpopo River valley, and by Mr. P. A. Clancey and other members of the Durban Museum staff in southern Portuguese East Africa, has shown that a reassessment of the races has become necessary.

When describing *A.c.patersonæ*, comparison was made largely with material taken from the populations of the Sabi and Limpopo River valleys of south-eastern Southern Rhodesia, which were then considered representative of *A.c.zuluensis*, as well as with additional more toptotypical material of that race lent by the Durban Museum. But with the more abundant study series now to-hand, it is quite evident that those populations from south-eastern Southern Rhodesia, formerly considered to be *A.c.zuluensis*,

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are in reality quite easily distinguishable from that form and worthy of recognition as a new race, and that *A.c.patersonæ* is in fact much more like *A.c.zuluensis* than was originally thought. For these populations, which I propose to separate as distinct from both *A.c.zuluensis* and *A.c.patersonæ*, I propose the name:

***Anthreptes collaris beverleyæ*, subsp. nov.**

Type: ♂, adult. Sentinel Ranch on the Limpopo River, Southern Rhodesia, at approximately 22° 08'S., 29° 30'E. on the border between Southern Rhodesia and the Union of South Africa. Gonads dormant. Collected by Michael P. Stuart Irwin, 11 May, 1960; collector's No. SES/214. In the collection of the National Museum of Southern Rhodesia, Bulawayo. National Museum registration No. 42688.

Diagnosis: In the adult the male differs from both *A.c.zuluensis* and *A.c.patersonæ* by having the under-parts distinctly lighter and clearer lemon yellow (about YYO-18-12°), with little if any dusky olive on the flanks. Wing-coverts narrowly edged with metallic green mixed with yellow; secondaries similar and suffused with yellow; primaries edged yellowish. In all these wing characters it is similar to *A.c.patersonæ* rather than to *A.c.zuluensis*, which has the coverts more broadly edged with metallic green. None of these characters is, however, as distinctive as that of the under-parts. Average size-range slightly smaller than in *A.c.patersonæ*, being more similar to *A.c.zuluensis* in this respect.

Paratypical material: 10 adult ♂♂; 8 adult ♀♀.

Measurements of the Type: Wing (flattened) 52, culmen (to base of skull) 15, tail 36, tarsus 15.5 mm.

Measurements of the paratypical series: Wing ♂♂ 52-54 (av. 52.3); ♀♀ 46-50 (48.3); tail ♂♂ 34-39 (36.0); ♀♀ 30-33 (32.0) mm.

Range: The upper and middle Limpopo River drainage to approximately the junction of the Shashi River in Southern Rhodesia; the adjacent northern Transvaal and undoubtedly the extreme eastern portion of the Bechuanaland Protectorate. Also the Sabi valley and its immediate tributaries in eastern Southern Rhodesia, south from about Hot Springs and Birchenough Bridge to the Sabi/Lundi River junction, and neighbouring Portuguese East Africa on the Save River to at least Maringa, but exact racial limits in this region uncertain.

In the northern half of Sul do Save probably southwards from the Save River to about the lower Limpopo River valley, as Clancey (*in litt.*) informs me that the sample from Panda, Inhambane

district, in the Durban Museum, is also attributable to this new form which may even range to the littoral at this point. Within Southern Rhodesia this form would not appear to occur much over 3,000 ft. a.s.l., and generally below 2,000 ft.

Habitat: This new race is, in contrast to *A.c.patersonæ*, restricted within Southern Rhodesia limits to the rich riparian fringe of the Sabi and Limpopo River systems within its stated range, which is surrounded by an arid and otherwise ecologically unsuitable environment, receiving on the average between 12 to 20 inches of rainfall per annum and often considerably less. This in turn must tend to isolate the populations of the species and favour geographical variation within rather narrow limits.

Remarks: This new race is named in honour of my wife.

In view of the above findings and the fact that *A.c.patersonæ* proves to be much closer to *A.c.zuluensis* than was originally supposed, it becomes necessary to redefine and assess the characters of that race. From *A.c.zuluensis* the adult males of *A.c.patersonæ* prove to differ but slightly, and if it were not for the geographically intervening populations of *A.c.beverleyæ*, the two forms could conceivably be merged, as they are occasionally inseparable, but *A.c.patersonæ* usually has a trifle more olive on the sides of the breast and flanks and the yellow of the under-parts thus slightly more restricted. Both differ somewhat in size however, thus: *A.c.patersonæ* wings ♂♂ 50-57, ♀♀ 47-54, tails ♂♂ 34-40, ♀♀ 32-35, as against ♂♂ 51-53, ♀♀ 47-50 and ♂♂ 34-36, ♀♀ 31-34 mm. in *A.c.zuluensis*.

While geographical variation is thus complicated by the similarity of the males of these two forms, the females of *A.c.patersonæ* and *A.c.beverleyæ* are at once distinguishable from *A.c.zuluensis* (though the former two are closely similar in this sex), but with the males of course easily distinguishable. Thus in *A.c.zuluensis* the breast is duskier, less suffused with yellow, and the chin and bases of the feathers on the throat are dull greyish white. In contrast, *A.c.patersonæ* has the chin and throat slightly paler, more suffused with olive with little or no white present, but in other respects is more similar, though *A.c.zuluensis* tends to be slightly brighter yellow on the chest and abdomen. Again, *A.c.beverleyæ* is similar to *A.c.patersonæ* on the chin and throat, but as with the males, is a clearer lemon yellow on the chest and abdomen.

As *A.c.zuluensis* ranges from northern Zululand, eastern Swaziland, the eastern Transvaal and the littoral of the Sul do Save,

southern Portuguese East Africa, it might be thought that the ranges of *A.c.zuluensis* and *A.c.patersonæ* would be continuous, but this does not seem to be the case, for as already noted *A.c.beverleyæ* penetrates as close to the coast as Panda. Both are seemingly independently more heavily pigmented on the under surfaces of the males and in any case are elsewhere separated by *A.c.beverleyæ* populations on the Save and Limpopo Rivers within Portuguese territory.

In view of the nomenclatural recognition of two additional races of this species from within South African limits, I believe it desirable at the present juncture to redefine the characters and ranges of the five races now admitted from this area, as our knowledge of the systematics of these forms can now be considered more or less complete, and can be finalised with some degree of certainty.

(a) ***Anthreptes collaris collaris*** (Vieillot)

Cinnyris collaris Vieillot, *Nouv. Dict. d'Hist. Nat.*, vol. xxxi, 1819, p. 502: Gamtoos River, Cape Province.

Adult male with head, sides of face, mantle and upper tail coverts metallic green; wing-coverts broadly, and secondaries narrowly edged metallic green; primaries edged yellowish; tail rectrices dark bluish-green edged with metallic green. Throat and chest metallic green bordered by a narrow bluish purple band, remainder of underparts yellow (about Y-17-12°), brightest in the centre of the abdomen; breast and flanks overlain with dusky olive; pectoral tufts pale yellow.

Adult female metallic green above as with the male; throat and chest dusky olive, centre of abdomen bright yellow, flanks olivaceous.

Range: Forested districts on the littoral from about Knysna and George in the southern Cape Province, eastwards to Pondoland and East Griqualand (eastern Cape), Natal and Zululand (southern and elevated interior forests (Nkandhla, Ngoye, Ngome, etc.)), western Swaziland, and, perhaps, some eastern Transvaal highland forests, but north-eastern range limits still uncertain.

(b) ***Anthreptes collaris zuluensis*** (Roberts)

Anthodiæta collaris zuluensis Roberts, *Ann. Transv. Mus.*, vol. xiv, 1931, p. 243: Mkusi River, north-eastern Zululand.

Adult male closely similar to that of *A.c.collaris*, but purple chest band broader and purer purple, less shot with blue. Underparts paler, less dusky olive, and with the yellow on the centre of

the abdomen brighter. Secondaries edged with yellowish and suffused with metallic green; wing-coverts more narrowly edged with green.

Adult female differs by having the chest more greyish olive, less olivaceous, with chin dull white, feathers on throat with dull off-white bases; remainder of under-parts a paler and clearer yellow.

Range: The lowlands of north-eastern Zululand from about the Umfolozi River and Lake St. Lucia (also in the Lebombo Mts. forests), eastern Swaziland, the eastern Transvaal lowveld, and the littoral of Sul do Save, southern Portuguese East Africa, north to about the lower valley of the Limpopo River, where it presumably intergrades with *A.c.beverleyæ*, as suggested by a series from Chimongo, Macia district, in the Durban Museum.

(c) ***Anthreptes collaris beverleyæ*** Irwin

Characters as already given above.

Range: Interposed between the ranges of *A.c.zuluensis* and *A.c.zambesiana*, occurring in the upper and middle drainage of the Limpopo River to about that river's confluence with the Shashi River, in Southern Rhodesia, and in immediately adjacent areas of the northern Transvaal, and, presumably, the eastern parts of the Bechuanaland Protectorate. Also in the valleys of the Sabi River and its affluents in eastern Southern Rhodesia (from about Hot Springs and Birchenough Bridge to the Sabi/Lundi confluence). Presumably extending eastwards to the Portuguese East African littoral, as specimens from Panda, Inhambane district, are referable to it (Clancey, *in litt.*). Within Southern Rhodesian limits this form would not appear to occur much over 3,000ft. a.s.l.

(d) ***Anthreptes collaris patersonæ*** Irwin

Anthreptes collaris patersonæ Irwin, *Bull.Brit.Orn.Club*, vol. 80, 1960, p. 65: lower Pungwe River, Holdenby, eastern Southern Rhodesia.

Adult male very similar to that of *A.c.zuluensis*, but with the flanks a trifle more olivaceous, yellow on centre of abdomen slightly paler (about YYO-17-12°). Metallic Green on wing-coverts more reduced; secondaries edged with yellowish.

The *adult female* is much more distinct from *A.c.zuluensis*, and more closely resembles *A.c.beverleyæ* by having the chin and throat dusky olive with the upper chest duskier.

Averaging larger in size than *A.c.zuluensis*.

Range: The eastern highland areas of Southern Rhodesia and adjacent Portuguese East Africa on the seaward slopes of the mountains, but exact limits in Portuguese territory uncertain.

(e) ***Anthreptes collaris zambesiana*** (Shelley)

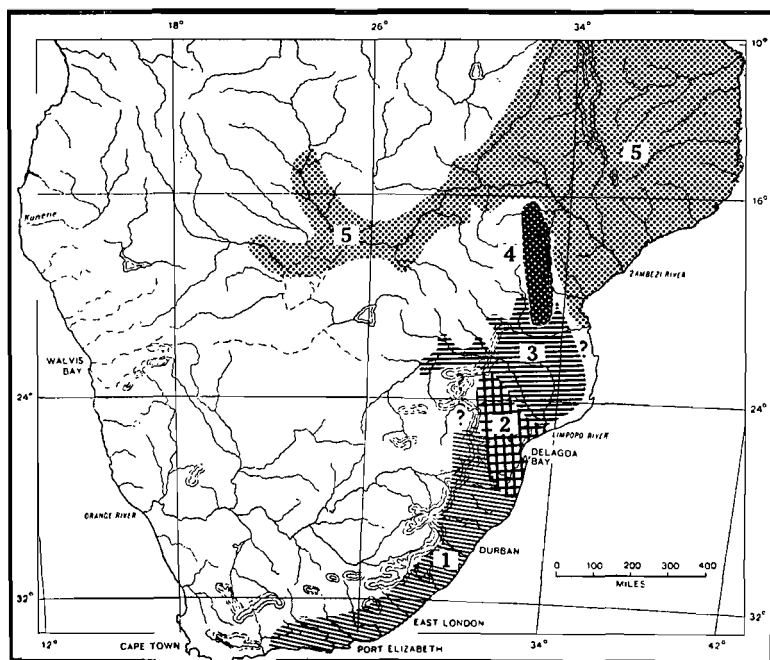
Anthodiæta zambesiana Shelley, *Monogr. Nect.*, vol. 2, 1880, p. 243: Shupanga, Shiré River, southern Nyasaland.

Synonym. *Anthodiæta collaris chobiensis* Roberts, *Ann. Transv. Mus.*, vol. xv (1), 1932, p. 32: Kasane, Chobe River, Bechuanaland Protectorate.

Adult male with the purple chest-band considerably broader than in any of the more austral races; remainder of under-parts a darker sulphur yellow (about OY-17-12°), generally lacking any olivaceous wash on the flanks, though occasionally evident. Secondaries yellowish, with only an occasional trace of metallic green; coverts narrowly edged with green or with a tendency to be replaced with yellowish.

The *adult female* has the throat and chest dusky olive with the yellow of the under-parts similar to that of the male.

Range: Southern Portuguese East Africa to the north of the range of *A. c. beverleyæ*, from about the vicinity of Beira and Gorongosa Mountain northwards to the Zambesi River, northern Portuguese East Africa, Nyasaland, the Luangwa valley and Eastern Province of Northern Rhodesia, and thence up the Zambesi drainage to the Linyanti and Chobe Rivers, the adjacent Caprivi Strip and the northern sector of the Okavango delta, Barotseland (south-western Northern Rhodesia) and, presumably, ranging to parts of south-eastern Angola. Northern range limits in the east not determined.



ANTHREPTES COLLARIS (Vieillot)

Sketch map showing the approximate ranges of five races of the Collared Sunbird *Anthreptes collaris* (Vieillot) occurring in south-eastern Africa.

1. *Anthreptes collaris collaris* (Vieillot)
2. *Anthreptes collaris zuluensis* (Roberts)
3. *Anthreptes collaris beverleyæ* Irwin
4. *Anthreptes collaris patersonæ* Irwin
5. *Anthreptes collaris zambesiana* (Shelley)

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