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REVISIONARY NOTES ON THE SOUTHERN AND EASTERN RACES OF THE YELLOW-BREASTED APALIS *APALIS FLAVIDA* (STRICKLAND) OF AFRICA

by

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Within South African subcontinental limits three races of the Yellow-breasted Apalis *Apalis flavida* (Strickland), 1852: Damara-land, are at present recognised, these being the nominate race of northern South-West Africa, which ranges eastwards to Ngamiland; *A.f.neglecta* (Alexander), 1900: Zambesi River, which is stated to occur from the Zambesi River valley southwards to Mashonaland, the Sabi River valley, the north-eastern Transvaal, southern Moçambique and Zululand; and *A.f.florisuga* (Reichenow), 1898: Eastern Cape Province, with a stated range from the Gamtoos River in the eastern Cape Province, northwards to Natal.

The best general account of the races of this small warbler species is that of Chapin, *Birds of the Belgian Congo*, part iii, 1953, pp. 278-283. An examination of material in the collection of the Durban Museum suggested that the characters and ranges of the Southern African races currently admitted by workers (*vide* McLachlan & Liversidge, *Roberts' Birds of South Africa*, 1957, p. 333) were patently unsatisfactory, while the existence of a previously undescribed race was also determined on the basis of our series. These preliminary observations suggested most cogently that the southern forms of this Apalis were in need of critical revision. Adequate material preserved in South African collections has made such a revision possible, and for the loan of additional series I am indebted to the Director of the National Museum of Southern

Rhodesia (through Mr. M. P. Stuart Irwin) and the Director of the Transvaal Museum (through Mr. O. P. M. Prozesky). I am also grateful to Mr. P. A. Clancey, Director of the Durban Museum, for much valuable assistance.

The evergreen forest and woodland dwelling populations which range from the eastern Cape Province to Pondoland and Natal (mainly interior forests) constitute one of the most distinctive races of *A. flavida*, namely, *A. f. florisuga* (Reichenow), which is readily distinguishable from the other austral and eastern African races on account of the total absence of a black spot on the breast of the male. In all the other races of this species considered in this revision, a black spot is present below the yellow pectoral patch, though frequently vestigial in *A. f. tenerrima*. The male of *A. f. florisuga* resembles the female closely, and is best differentiated on size.

The populations of Zululand, Moçambique and Nyasaland, westwards in the Zambesi River valley to eastern and central Northern Rhodesia represent the race *A. f. neglecta* (Alexander), the male of which has a prominent black spot on the breast, the yellow of which has an admixture of olive-green, the lateral and caudad feathers extensively tipped with grey, giving it a somewhat mottled appearance. As in *A. f. florisuga*, the grey on the head is confined to the forehead, with the green of the back and nape extending on to the crown of the head. To the east and south of the range of *A. f. neglecta* occurs a form which resembles it in the amount of grey on the head but which differs appreciably therefrom on the basis of its considerably clearer, brighter yellow breast, there being no admixture of olive-green or grey tipping to the yellow feathers. This is a very well-marked character, and enables this at present innominate race to be readily differentiated from the juxtaposed *A. f. neglecta*, with which it is at present associated. This brighter breasted form ranges from Swaziland, the eastern and north-eastern Transvaal to Southern Rhodesia, northwards to the Kariba Lake area. Within Southern Rhodesian limits the species has a disrupted range, being confined mainly to the east and north, where it occurs principally in riverine growth. The considerable series of specimens in the collection of the National Museum of Southern Rhodesia from the Zambesi River and adjacent areas near the Kariba Lake can scarcely be distinguished from specimens from the eastern Transvaal and Swaziland, and for all practical purposes are best associated with the new taxon. As no name is available for this form, I introduce *A. f. lucidigula* mihi below.

In northern South-West Africa, south-western and southern Angola, Ngamiland, north-western Bechuanaland Protectorate, and the immediately adjacent areas of Northern Rhodesia occurs *A.f.flavida* (Strickland). This taxon is readily distinguished from all other races of the species by the yellow of the breast extending on to the throat. This criterion is most characteristic and quite diagnostic. In addition to this, there is a strong tendency for the grey of the forehead to extend on to the crown of the head, resulting in some specimens having the entire head-top grey, while the sides and flanks are washed with yellow, and the ventral surface of the tail shows prominent yellow edging to the inner webs of the rectrices.

In southern and coastal Tanganyika Territory occurs *A.f.tenerrima* Grote, 1935: Mikindani, south-eastern Tanganyika Territory, which, in contrast to the forms just considered has an entirely grey head-top, in which respect it differs abruptly from the contiguous *A.f.neglecta*, which has the olive-green reaching from the nape on to the mid-crown. The yellow on the under surface of the tail feathers is confined to a terminal spot to each rectrix, whereas in *A.f.golzi* (Fischer and Reichenow), 1884: Great Arusha, north-eastern Tanganyika Territory, which replaces it in the interior, the head-top of which is also wholly grey, the under surface of the tail feathers is entirely yellow, with a tendency for the under tail-coverts to be yellow as well. While *A.f.tenerrima* appears to be confined to the coastal lowland regions of southern Tanganyika Territory and adjacent northern Moçambique, *A.f.golzi* occurs throughout most of the plateau of interior Tanganyika, with an extension down the western side of Lake Nyasa in the highlands of northern Nyasaland. To the east of Lake Victoria, north of the ranges of *A.f.golzi* and *A.f.tenerrima*, occurs *A.f.flavocincta* (Sharpe), 1882: Athi River, Kenya Colony, which is distinguished in having the green of the upper-parts extending on to the crown of the head, as in *A.f.florisuga*, *A.f.neglecta* and *A.f.lucidigula*.

To return to the more southern populations, specimens examined by me from north-western Northern Rhodesia resemble *A.f.tenerrima* in having the head-top entirely grey and the yellow in the tail confined to mere tips to the rectrices. While superficially resembling *A.f.tenerrima*, with which they are not in contact, these western birds differ in having the upper parts a paler, more greyish green, with a certain amount of greyish intrusion, and the grey of the head is distinctly paler. These specimens may represent another in nominate race occurring in central and northern Angola, north-western Northern Rhodesia and the southern Congo. However, the in-

adequacy of the material before me precludes me from considering this form further at present.

The southern and eastern African races of *A. flavida* considered in these revisionary notes are as hereunder detailed:

(a) ***Apalis flavida flavida*** (Strickland)

Drymoeca flavida Strickland, *Contr. Orn.*, 1852, p. 148: Damaraland (but see "Note").

Male with a prominent black breast spot. Characterized by having the yellow of the breast extending on to the throat, and with a marked tendency for the grey of the forehead to extend on to the crown of the head. The sides of the body, flanks and under tail-coverts are washed with yellow, and the ventral surface of the tail exhibits prominent yellow edging to the inner-webs of the rectrices.

Measurements: 9 ♂♂ wing 51.0-54.0 (52.4); tail 47.0-54.5 (50.9); culmen 14.0-15.0 (14.4); 3 ♀♀ wing 48.0-51.5 (49.5); tail 44.5-47.5 (46.8); culmen 13.5-14.0 (13.7) mm.

Material: 12 (Bechuanaland Protectorate, 7; Caprivi Strip, 1; Northern Rhodesia, 4).

Range: Northern South-West Africa, and south-western and southern Angola, south-eastwards to Ngamiland, Bechuanaland Protectorate, and the adjacent areas of southern Barotseland, south-western Northern Rhodesia.

Note: It is interesting to observe that Andersson, *vide Birds of Damaraland*, 1872, p. 96, the collector of the *Type* of *Drymoeca flavida* Strickland, records that he never found the species in Damaraland, and only in Ngamiland. This suggests that the stated type-locality is in error and that it should be adjusted to Ngamiland. In South-West Africa the species is decidedly scarce, occurring only in Ovamboland and adjacent northern areas.

(b) ***Apalis flavida neglecta*** (Alexander)

Chlorodyta neglecta Alexander, *Bull. Brit. Orn. Club*, vol. 10, 1900, p. 17: Zambesi River.

Prominent black spot present on the breast of the male; yellow of breast with an admixture of olive-green and variably sullied with prominent grey tipping to the lateral and caudad breast feathers, resulting in the breast patch having a somewhat mottled appearance. Grey on head-top confined to the forehead and fore-crown, with the green of the upper-parts extending over the nape on to the crown of the head.

Measurements: 46 ♂♂ wing 47.0-54.5 (51.1); tail 46.5-56.0 (50.8); culmen 13.0-15.5 (14.6); 10 ♀♀ wing 45.0-52.0 (49.0); tail 41.0-49.0 (45.0); culmen 13.5-15.0 (14.3) mm.

Material: 124 (Zululand, 10; Moçambique, 34; extreme eastern lowlands of Southern Rhodesia (Lower Pungwe River, Nuanetsi, etc.), 23; Nyasaland, 2; Northern Rhodesia, 55).

Range: Zululand (south to the Tugela drainage) and the littoral of Sul do Save, southern Portuguese East Africa, the eastern lowlands of Southern Rhodesia (extending slightly westwards up the Limpopo and Sabi River valleys), northwards to southern Nyasaland, central and eastern Northern Rhodesia (mainly south and east of the Muchinga Range), and the southern part of northern Moçambique. To the north-west of the ascertained range of *A.f.neglecta* occur rather different populations, more closely resembling *A.f.tenerrima* in having the head-top entirely grey (see discussion in text above).

(c) ***Apalis flavida florisuga*** (Reichenow)

Euprinoides florisuga Reichenow, *Journ.für.Ornith.*, 1898, p. 314: Eastern Cape Province.

Separable from the previous races on the grounds that the male is similar to the female in having no black pectoral spot. The yellow of the breast is brighter and clearer than in *A.f.neglecta*, there being no admixture of olive-green or grey tipping to the yellow feathers.

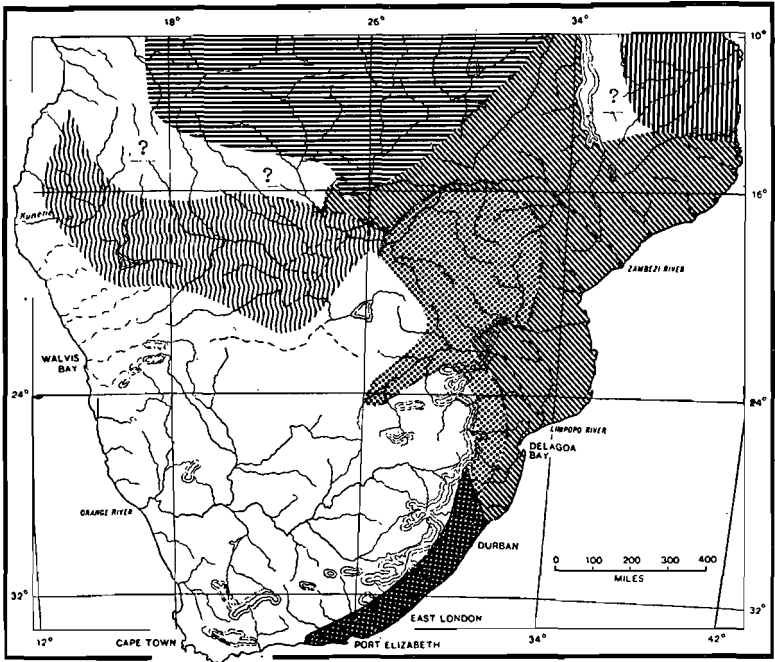
Measurements: 9 ♂♂ wing 47.0-51.0 (48.8); tail 47.5-54.5 (51.4); culmen 13.5-15.0 (14.1); 9 ♀♀ wing 46.0-49.0 (47.0); tail 45.5-53.0 (47.3); culmen 13.5-15.0 (14.3) mm.

Material: 18 (eastern Cape Province, 6; Pondoland, 8; Natal, 4).







Range: From the eastern Cape Province, through Pondoland and East Griqualand, to Natal (rare on the coast, and mainly in the interior forests), where it meets *A.f.neglecta*. There is no evidence of intergradation between *A.f.florisuga* and *A.f.neglecta*, owing, perhaps, to marked differences in the ecological requirements of the two races concerned. *A.f.neglecta* is usually to be found in drier and more open botanical associations, whereas *A.f.florisuga* is largely an inhabitant of evergreen forest.

(d) ***Apalis flavida lucidigula***, subsp. nov.

Type: ♂ ad. Farm Malamala, near Newington, eastern Transvaal. Collected on 30th July, 1952, by P. A. Clancey. In the collection of the Durban Museum.



Sketch-map to show the distributions of the races of *Apalis flavida* (Strickland) in southern Africa.

-  *A. f. flavida* (Strickland)
-  *A. f. neglecta* (Alexander)
-  *A. f. florisuga* (Reichenow)
-  *A. f. lucidigula* Lawson
-  *A. f. tenerrima* Grote
-  *A. f. flavida?* subsp. nov.

Diagnosis: Differs from *A. f. florisuga* in that the male has a black spot on the breast, and from *A. f. neglecta* in having the breast a clear, bright yellow, lacking the admixture of olive-green and grey tipping present in that race. It is the bright yellow breast that is most characteristic of this new race. The grey on the head is confined to the forehead and fore-crown, with the green of the back extending on to the crown of the head. Differs from *A. f. flavida* in having no extension of yellow from the breast on to the throat.

Measurements: 15 ♂♂ wing 48.0-52.5 (50.7); tail 46.0-57.0 (51.4); culmen 14.0-16.0 (15.0); 12 ♀♀ wing 48.0-50.5 (48.9); tail 44.0-50.5 (46.8); culmen 13.5-15.0 (14.0) mm.

Material: 102 (Swaziland, 13; north-eastern Transvaal, 25; south-western Moçambique, 5; eastern Southern Rhodesia, 31; Zambesi River in the region of the Kariba Lake, 28).

Measurements of Type: Wing 51.5; tail 52.0; culmen 14.5 mm.

Range: Ranges from the eastern plain of Swaziland, the eastern and northern Transvaal, and in the valleys of rivers flowing eastwards from the interior in adjacent southern Moçambique, northwards to the elevated interior of Southern Rhodesia (north to the Zambesi River in the vicinity of the Kariba Lake). Within the political limits of Southern Rhodesia apparently absent from much of the plateau, occurring principally in the riverine growth of the valleys. May perhaps extend to the eastern Bechuanaland Protectorate in the Limpopo drainage.

(e) ***Apalis flavida tenerrima*** Grote

Apalis flavida tenerrima Grote, *Ornith. Monatsber.*, 1933, p. 119: Mikindani, south-eastern Tanganyika Territory.

Differs from *A.f.neglecta* in having the grey of the forehead extending back on to the crown of the head, giving the form a 'grey-cap'. The yellow on the under surface of the rectrices is confined to terminal spots, and the under tail-coverts are white. Black breast spot in the male usually vestigial or absent in some.

Measurements: 1 ♂ wing 50.5; tail 46.5; culmen 15.0: 3 ♀♀ wing 47.0-48.5 (47.7); tail 40.0-41.5 (40.8); culmen 13.0-14.0 (13.7) mm.

Material: 4 (Namigong River, Songea; Luwipa River, near Ifakara, Tanganyika Territory).

Range: Coastal and south-eastern lowland areas of Tanganyika Territory, and also northern Moçambique, but southern limits not determined. Perhaps ranging south to the faunal barrier of the Lurio River.

(f) ***Apalis flavida golzi*** (Fischer & Reichenow)

Euprinoides golzi Fischer & Reichenow, *Journ.für.Ornith.*, 1884, p. 182: Great Arusha, Tanganyika Territory.

Distinguished from the contiguous *A.f.tenerrima* on the basis of its having the under surface of the tail feathers wholly yellow, and in having the under tail-coverts yellow as well. Also larger in size (*vide* Mackworth-Praed & Grant, *Birds of Eastern and North Eastern Africa*, vol. ii, 1955, pp. 408-411). The male always exhibits a prominent black pectoral spot, as in *A.f.neglecta*.

Measurements: 6 ♂♂ wing 50.0-55.0 (51.9); tail 45.0-55.0 (49.1); culmen 13.5-15.5 (14.3): 2 ♀♀ wing 49.0-50.0 (49.5); tail 44.0-45.0 (44.5); culmen 14.0 mm.

Material: 8 (Tanganyika, 6; Nyasaland, 2).

Range: North of the ranges of *A.f.neglecta* and *A.f.tenerrima* in the highland plateau of southern Kenya and most of the interior of Tanganyika Territory, with an extension south to the north-west of Lake Nyasa in the highland areas in that region. Also extends into the north-eastern Congo, west of Lake Victoria in the Kagera Valley.

(g) ***Apalis flavida flavocincta*** (Sharpe)

Euprinoides flavocinctus Sharpe, *Journ.für.Ornith.*, 1882, p. 346: Athi River, Kenya Colony.

Similar to *A.f.golzi* but differs from that taxon in having the green of the back extending over the nape on to the crown of the head, *i.e.*, not totally grey over the head-top as in *A.f.golzi* or *A.f.tenerrima*, and in this respect like the South African sub-continental races. The under surface of the rectrices is also yellow as in *A.f.golzi*, as are the under tail-coverts.

Measurements: 2 ♂♂ wing 54.0-54.5 (54.3); tail 51.5-52.5 (52.0); culmen 14.0-14.5 (14.3) mm.

Material: 2 (Lake Elmenteita, and Nanyuki, lower Mt. Kenya).

Range: The highland and central areas of Kenya Colony, extending from Mt. Kenya south to about the Athi River (*vide* Sclater, *Systema Avium Aethiopicarum*, part ii, 1930, p. 524).

Note: *Apalis æquatorialis* Neumann, 1900: Angata, Anyuk, near Mau, western Kenya Colony, described from just west of the ascertained range of *A.f.flavocincta* is probably not distinguishable from *A.f.golzi*. Other races of *A.flavida* not considered in this revisionary paper are as follows: *A.f.malensis* Neumann, 1905: Schambala River, Male, southern Abyssinia, of southern Abyssinia and adjacent north-western Kenya Colony; *A.f.viridiceps* Hawker, 1898: Sheik Woofly, Somaliland (with *A.f.neumanni* Zedlitz, 1916: Afgoi, Somalia, as a probable synonym), of the Somalilands; *A.f.caniceps* (Cassin), 1859: Camma River, Gabon (with *A.f.uamensis* Reichenow, 1921: Bosum, eastern Cameroons, a synonym, as treated by Chapin, *loc.cit.*), extending from Ghana and adjacent West African territories, eastwards through Nigeria, the Cameroons, and former French Equatorial Africa, to the Gabon and Lower Congo, and north of the Lower Guinea forest to the southern Sudan, Upper Uelle (Congo) and Uganda.