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# Further on subspeciation in the Red-billed Oxpecker *Buphagus erythrorhynchus*

by P. A. Clancey

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The subspecific variation of the Red-billed Oxpecker *Buphagus erythrorhynchus* (Stanley) of eastern and southern Africa from the Sudan, Ethiopia and Somalia, south to southeastern Angola and Natal and Zululand was last considered by Clancey & Lawson (1961) and Clancey (1962). The species was originally shown to exhibit subspecifically significant variation by Grote (1927), whose findings were adopted by Sclater (1930), but not by some later workers. Since 1962 two additional subspecies of this oxpecker have been proposed from southern Africa: *B. e. angolensis* Pinto, 1968, from Cuando-Cubango in southeastern Angola (Pinto 1968), and *B. e. bestiarum* Brooke, 1970, from southeastern Rhodesia (Brooke 1970). Brooke, in Benson *et al.* (1970), acknowledged the discreteness of *angolensis*, but the more recently proposed *bestiarum* has not yet been commented on. This last taxon was proposed on the basis of a relatively short series, mainly from Chipisi, c. 96.5 km east of Beit Bridge, near the confluence of the Bulyombe and Limpopo R., on the border between Rhodesia and the northern Transvaal. Chipisi, which is the type locality of the taxon, lies relatively close to those of *B. e. caffer* Grote, 1927: Palala R., northern Transvaal, a south bank affluent of the Limpopo R., which it joins at 23° 05' S., 27° 53' E., and *B. e. scotinus* Clancey & Lawson, 1961: Panda, Inhambane district, Mozambique, at 24° 02' S., 34° 45' E., just north of the lower Limpopo flood plain. From this it will be appreciated that the three names applicable to eastern southern African populations, namely, *caffer*, *bestiarum* and *scotinus*, are all loosely associated with the middle and lower reaches of a single river, the Limpopo.

Subspecifically significant variation in *B. erythrorhynchus* is relatively slight, affecting general size, the colouration of the face, chin and upper fore-throat, levels of saturation over the upper- and under-parts, and the colour of the tail. Despite what has been stated at various times, individual variation in single populations is highly conservative, but elucidation of both this and geographically correlated variation is rendered difficult for the following reasons: (a) series from single localities are both rarely long enough and comprised in the main of adult birds, (b) the taxonomically significant variation is only partially shown by juvenile and immature birds, (c) the species is subject to much carbon and soil discolouration through contact with soiled pelage of its mammalian hosts, and (d) being exposed to the strong African sun most of the day, birds fade and wear rapidly. Foxing in museum skins is a slow process and not a major problem in the present species.

Variation in the Red-billed Oxpecker in southern and central Africa corresponds well to that exhibited by a whole range of similarly distributed polytypic passerines and small non-passerines: populations of dark and somewhat small-sized birds in the humid eastern lowlands and parts of the immediate interior, with paler, less saturated, elements replacing them in the drier (xeric) interior, while, in turn, size increases markedly in southern Angola, southwestern Zambia, northeastern South West Africa, Caprivi and northern Botswana. A re-examination of my (1962) arrangement of the populations into races in the light of the description of *B. e. angolensis* in 1968



and *B. e. bestiarum* in 1970, using now a series of just under 100 specimens, indicates the necessity of recasting the ranges of *B. e. caffer* and *B. e. scotinus*, with only three subspecies being admitted south of the ranges of the northern *B. e. erythrorhynchus* and *B. e. invictus*, making five subspecies in all for the species concerned.

*B. e. bestiarum* was described as differing from *caffer* in being generally paler, colder and duller, with the throat pale pinkish grey, the breast dull brown without the olive (wash) of *caffer*, and above grey-brown, without an olive wash. The pale pinkish grey throat was said to serve to distinguish *B. e. bestiarum* from all other races of the species. The *Type* of this taxon has not been available to me, but three paratopotypes from Chipisi taken at the same time cannot be distinguished from a series in comparable dress of *B. e. scotinus* from the lowlands of Mozambique taken in 1960, 1966 and 1971. Taken as a unit, all reasonably fresh adult *bestiarum* are as dark and suffused with olive over the upper-parts, dark over the face, chin and upper fore-throat, and deeply coloured below as a series of *scotinus* in the Durban Museum from Panda, Massinga and Rumbaçaça, localities in Sul do Save, Mozambique, and are taxonomically indistinguishable from this subspecies. In so far as the Chipisi specimens are concerned, I cannot discern the pale pinkish colour attributed to them in the original diagnosis, and actually find such specimens darker throated and breasted than fresh *B. e. caffer* from the western Transvaal (Northam) and a range of localities in eastern Botswana. From these findings I conclude that *B. e. bestiarum* will require to be merged with the earlier *B. e. scotinus*, the range of which will need to be adjusted from that laid down in 1962, namely, the humid coastlands of eastern Africa from Mozambique, north to Kenya, to read as follows: Mozambique, (? and northeastern Zululand), Rhodesia east of *caffer*, Zambia east of *angolensis*, Malawi, southeastern Zaire, Rwanda, Burundi, southern Uganda and Kenya south of *B. e. erythrorhynchus* and *B. e. invictus*.

*B. e. scotinus* differs from both *B. e. erythrorhynchus* (Stanley), 1814: northern Ethiopia, and *B. e. invictus* Clancey, 1962: Garissa, Tana R., Kenya, in being much darker over the face, chin and upper fore-throat, and more saturated throughout. In size it is similar to the nominate subspecies, but is much larger than the small-sized, pallid *invictus*.

*B. e. caffer* was erected largely on the basis of a size difference in comparison with the nominate race, the *Type* being from Palala R., in the western Transvaal. In my 1962 summary of the races I used this name for the interior populations ranging from the southern aspects of the Kenyan highlands south to the Transvaal and Natal. The present assessment of the variation now shows that *caffer* has a much more restricted distribution, and that many populations of *scotinus* were incorrectly assigned to it. Topotypical examples of *caffer* differ from the contiguous race, *scotinus*, in being colder and greyer dorsally, with the face, chin and upper fore-throat lighter and greyer (about the Light Drab of Ridgway (1912), pl. xlvi, *versus* greyish Buffy Brown (pl. xl) in *scotinus*), and the rest of the venter less saturated. With the elimination of the species from large areas of southeastern Africa through cattle-dipping, the use of insecticidal sprays and game eradication it is not easy to assess the former extent of the range of *caffer*, but nowadays it extends from the eastern aspects of the Kalahari, in Botswana, east to the northwestern Orange Free State, the Transvaal, and the low rainfall areas of northwestern Rhodesia (Wankie, Matetsi). In former times it extended well south of this over the Orange Free State and Natal, but has now all but disappeared from these



provinces, though still present in some numbers in game reserves in northern Zululand, where, however, the birds appear to be nearer *scotinus* than *caffer*, but apparently showing characters of their own (darker fore-throat and breast, more ochraceous-buff belly, and with cinnamon wedging to the second and third outer rectrices), if the aged material available can be relied upon.

When Pinto named *B. e. angolensis* he compared his Okavango R., Angola, material with ten skins from Sul do Save, which he considered to represent *caffer*, but which were in fact *scotinus*, which latter taxon was not mentioned. *B. e. angolensis* was described as resembling "*caffer*" = *scotinus* in colour, differing in its greater size, even though the figures given in the original description: 121–136, versus 119–124 mm, show a considerable measure of overlap. However, as will be appreciated from the mensural data (Table I),

TABLE 1.

The wing-length (mm) variable in *B. erythrorhynchus* populations occurring to the south of the ranges of nominate *B. erythrorhynchus* and *B. e. invictus*.

Population	N	Range	Mean	SD	SE
<i>B. e. ? subsp.</i>					
Zululand	2	114, 116.5			
<i>B. e. caffer</i>					
W. Transvaal, Botswana and N.W. Rhodesia	15	116.5–123.5	120.3	2.28	0.59
<i>B. e. caffer</i> $\geq$ <i>B. e. scotinus</i>					
E. Transvaal	11	119–124	121.2	1.66	0.50
<i>B. e. scotinus</i>					
S. Mozambique	12	118–124.5	120.4	2.29	0.66
Rhodesia	13	116.5–124.5	120.8	2.50	0.69
Zambia and Tanzania	7	118.5–125	121.8	2.01	0.76
<i>B. e. angolensis</i>					
N.W. Botswana, Caprivi and S.W. Zambia	5	125–132	126.9	2.88	1.29

the wing-length spectrum in adults of the present oxpecker lies between 5 and 8.5 mm, which indicates that Pinto's paratypical series of *angolensis* comprised several immature birds. My measurements of adults from the range of *angolensis* suggest that the size distinction separating *angolensis* and *scotinus* is in all probability more sharply defined than suspected by the original author, *angolensis* having wings 125–132, versus 116.5–125 in *scotinus* and 116.5–123.5 mm in *caffer*.

Compared with true *B. e. caffer* from the western Transvaal and eastern Botswana, *angolensis* differs in being more olive tinged above, less grey, darker and browner over the face, chin and upper fore-throat, slightly more saturated ventrally, and in having the wing-length in adult birds much greater. The range of *B. e. angolensis* is from Cuando-Cubango, Angola, and northeastern South West Africa, east to Caprivi, the Okavango Swamp region of northwestern Botswana, and Barotseland and the western part of



the Southern Province of Zambia. Its influence can also be detected in the northwestern Rhodesian sample.

In the above discussion I have not taken into consideration the contentious name *Buphaga Africanoides* A. Smith, 1831: Natal, the availability of which was discussed by Clancey (1968, 1969) and Benson & Hall (1969). As stated in a footnote to *Bull. B.O.C.*, 89 (2) (1969): 38, this matter was duly submitted to the International Commission on Zoological Nomenclature at a time when the terms of Article 23 (b) of the *Code* were under critical review and immediately prior to the publication of Declaration 43, in which Article 23 (b) was repeated. In a letter dated 14 June 1971, the Secretary of the Commission, Mr. R. V. Melville, informed me that Smith's *africanoides* is a *nomen oblitum* in terms of the said Article, and that as its existence was made known prior to the adoption of Declaration 43 in December 1970 (I.C.Z.N. 1970), it can only be re-established as a valid name by the Commission exercising its plenary powers. In the light of Mr. Melville's other comments, and on account of the fact that a Natal population of this oxpecker now hardly exists, I have not felt it necessary to take the requisite steps to have Smith's long over-looked name validated.

To summarize: my 1962 revision of the species is adjusted in the light of the description of two additional subspecific taxa: *B. e. angolensis* (1968) and *B. e. bestiarum* (1970). *B. e. angolensis* is recognised, while *B. e. bestiarum* is merged with *B. e. scotinus*, the range of which is enlarged to cover the populations ranging from the southern aspects of the Kenya highlands, south to southern Mozambique. *B. e. caffer* is now interpreted as a dry country race, extending from the eastern Kalahari, east to western Rhodesia and the Transvaal, and with a former more extensive range to the southward.

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