

DURBAN MUSEUM

Novitates



ISSUED BY THE DURBAN MUSEUM, DURBAN 4001, SOUTH AFRICA

VOL. XIII, PART 1

ISSUED 1st OCTOBER, 1981

MISCELLANEOUS TAXONOMIC NOTES ON AFRICAN BIRDS LX

by

P. A. Clancey

(Director, Durban Museum, Durban)

VARIATION IN THE AFROTROPICAL POPULATIONS OF *CHARADRIUS TRICOLLARIS* VIEILLOT

The present sandplover is an endemic of much of the Afrotropical Region and the Malagasy Sub-Region, where it inhabits the shingle and muddy banks of rivers, lakes and even ponds. At the present time two subspecies are recognised: nominate *C. tricollaris* Vieillot, 1818: Cape Town, Cape, of the Afrotropics, and *C. t. bifrontatus* Cabanis, 1882: Madagascar, of the said island. While on occasion considered to be conspecific with *tricollaris*, the allied *C. forbesi* (Shelley), 1883: Shonga, Niger R., Nigeria, is better treated as a separate monotypic species on account of its larger size, darker dorsal colouration, greyish brown, not white, forehead, heavier ventral banding, and very different breeding habits. *C. forbesi* is largely allopatric to *tricollaris* which it replaces in West and parts of central Africa.

While only the nominate race of this small banded sandplover is currently recognised from the African continent, it has been evident for some time that the said populations exhibit a measure of variation, this affecting the colouration of the pileum and dorsum, the width of the lower of the two black pectoral bands and general size. Many populations are also subject to marked movements in association with the rains and seasonal unsuitability of certain regions which have tended to obscure any part of this variation as being of subspecific relevance.

In a recent contribution on this species of plover, Tree, *Honeyguide*, No. 102, May, 1980, p. 19, writes as follows: "The Treble-banded Plover *C. tricollaris*, which is able to adapt to several varying habitats during the wet season, is subject to rather obscure movements. An

(Price R2,00 nett)

intensive ringing programme on this species in the Salisbury area (of Zimbabwe) over the last eight years has shown two populations occur, with a breeding population arriving from late March onwards and departing in November and December, which is replaced during the wet season by a small population found mainly around sewage works. There is some degree of overlap of these two populations and occasional ringed birds are found in the alternate season. It has also been shown that the majority of the Zambian population departs during rains and that the remaining birds are found, as in Zimbabwe, at habitats created by man, *e.g.*, sewage works, fish farms, or drainage ditches (Tree 1969). The birds move to areas of low rainfall, where they are widespread near any temporary, seasonal water far into the Kalahari of Botswana."

Through the kind co-operation of other museums it has been possible to bring together a reasonable series of Treblebanded Sandpipers, the flattened wing-measurements of which are given in Table 1. In the case of Cape, Orange Free State, and South West African and Botswana specimens the wing-length is 110 - 118,5 (in the case of the Cape sample one or two obvious migrants extend the range markedly from 106 - 118), mean *c.* 113, while to the east the proportion of short- to long-winged birds increases, the samples of specimens from the Transvaal, Natal and Transkei, Swaziland, Mozambique and Zimbabwe with wings 101 - 116,5, the mean *c.* 110 mm.

In the South African Sub-Region, birds with wings 110 and over are substantially larger in the prepared skin than in the case of those with wings below 110 and down to 101, and in general tend to have the lower of the two black transverse breast-bands deeper. However, while short-winged (and short-tailed) and narrower banded birds are clearly largely eastern in disposition and their occurrence in the more xeric interior and west is probably due to post-breeding dispersal, it has not been possible to correlate such dispersion satisfactorily with altitude or any relevant distributional factor. As with size, lower breast-band depth seems likewise incapable of being used as a subspecific criterion.

Much the same wing-length pattern emerges in a study of populations in east and north-eastern Africa. In a series of 17 ♂♀ from Kenya, ten specimens have wings 110 - 117, and seven have wings 105 - 109; in a sample of 10 ♂♀ from Ethiopia all have wings 110 and above. In 5 northern Somalia specimens, two have wings 105 and 106, and three 112, 112 and 113 mm. In what appears to be a case of long distance migration, a single ♀ from near Maroua, northern Cameroun, has a wing of 105,5 mm (*vide* Bannerman and Bates, *Ibis*, 1924, p. 208).

With the evidence provided by the samples from the Cape (in part), the Orange Free State, South West Africa and Botswana, and Ethiopia, which have wings 110 - 118,5, the seasonal presence of small sized birds alongside larger ones in other territories is probably of

TABLE I

Wing- and tail-length parameters (in mm) in the Treblebanded Sandplover

Population	Wing				Tail			
	n	Range	\bar{x}	SD	n	Range	\bar{x}	SD
Cape	56	106 - 118	113,05	2,37	56	58 - 68	63,7	2,10
South West Africa and Botswana	9	110 - 117,5	112,6	3,07	10	60 - 69	64,05	2,69
Orange Free State	4	110 - 118,5	114,0	3,63	4	55,5 - 64	60,87	3,79
Transvaal	21	105 - 115,5	110,5	2,80	21	57 - 68	60,6	2,53
Natal and coastal Transkei	14	106,5 - 115,5	110,64	2,98	14	57 - 65	60,32	2,51
Swaziland	7	105 - 116,5	110,3	3,41	7	55 - 64	60,4	3,10
Mozambique	9	108 - 115	110,8	2,15	9	55 - 65,5	59,4	2,90
Zimbabwe	15	107 - 115	109,6	3,38	15	56 - 66	60,5	2,72
Zambesi Valley Sabi R.	15	107 - 115	109,6	3,38	15	56 - 66	60,5	2,72
Zambia	3	112,5 - 114	111,5	0,5	3	56 - 60	58,2	2,02
Malawi	2	112,5 - 114	113,25	1,06	2	60 - 63	61,5	1,12
Tanzania	3	105,5 - 110	107,2	2,47	3	57,5 - 62	59,5	1,87
Uganda	5	107 - 111	109,8	2,28	5	60 - 62	61,2	0,84
Kenya	17	105 - 117	110,65	3,14	14	60 - 67	62,9	2,06
Somalia	5	105 - 113	109,6	3,78	5	60 - 65	62,2	1,92
Ethiopia	10	110 - 115	113,0	1,76	10	61 - 66	62,8	2,04

more significance than is immediately evident at this stage. However, is so far as Zimbabwe and Zambia are concerned, it lends support to Tree's conclusion in respect of the occurrence of two discrete populations in these and, presumably, other central and eastern African territories.

Turning to dorsal colouration, a more satisfactory taxonomic outcome can be achieved by a simple comparison of samples of specimens. Nominate *C. tricollaris*, with its restricted type-locality Cape Town, in the extreme south-west of the Cape, has the pileum, dorsum and adjacent wing surfaces close to Saccardo's Umber (Ridgway (1912), pl. xxxix). Birds with this relatively warm brown dorsum range as breeders throughout the karoid country of the Cape, the Orange Free State, the southern Transvaal, Natal, thence to South West Africa, adjacent Botswana and presumably south-western Angola (1 examined). Post-breeding movements take the present form to the eastern lowlands of southern Africa (Swaziland, Transvaal lowveld, Zimbabwe and Mozambique; also apparently to Malawi and Zambia). The western Cape topotypical population breeds mainly July-December (*vide* Winterbottom, *Ann.S.Afr.Mus.*, vol. liii, 1,

1968, p. 127), and nominate *C. tricollaris* appears to be centred on the South West Arid District of Chapin.

The populations occurring to the east and north of those of *C. t. tricollaris*, as defined above, differ in having the crown darker and less buffy brown in series, and have the entire dorsum and adjacent wing surfaces, including the tertials, darker and colder brown (about cold greyish Olive-Brown (pl. x1), rather than the Saccardo's Umber of the typical race). The difference in dorsal colour between these two populations is of the same order as that which separates *Charadrius hiaticula hiaticula* Linnaeus and *C. h. tundrae* (Lowe). This population complex also ranges smaller in size than in the case of topotypical *C. t. tricollaris*, and in the main has the lower of the two black pectoral bands less deep, but, as indicated in the above discussion, neither of these features is, certainly in our present appreciation of them, of significance in arranging the populations into acceptable subspecific groupings.

No names in synonymy are available for the darker crowned and backed eastern and north-eastern representation of the Treblebanded Sandplover. *Aegialites cinereocollis* Heuglin, 1856, published in *Sitzb. Ak. Wien*, p. 308: "Einzeln an den abyssinischen Gebirgswassern", is a *nomen nudum*, as stated by Reichenow, *Die Vögel Afrikas*, vol. i, 1900 - 1901, p. 176. *Charadrius indicus* Latham, 1790, has on occasion been wrongly attributed to Rüppell and listed from the north-eastern Afrotropics. The *C. indicus* of Latham appears to be specifically indeterminate.

The Afrotropical elements of the Treblebanded Sandplover can be arranged in two moderately well-differentiated subspecies on the basis of variation in the dorsal colouration:

(a) ***Charadrius tricollaris tricollaris*** Vieillot

Charadrius tricollaris Vieillot, *Nouv. Dict. d'Hist. Nat.*, vol. xxvii, 1818, p. 147: Africa, restricted to Cape Town, Cape, by Grant, *Ibis*, 1915, p. 57.

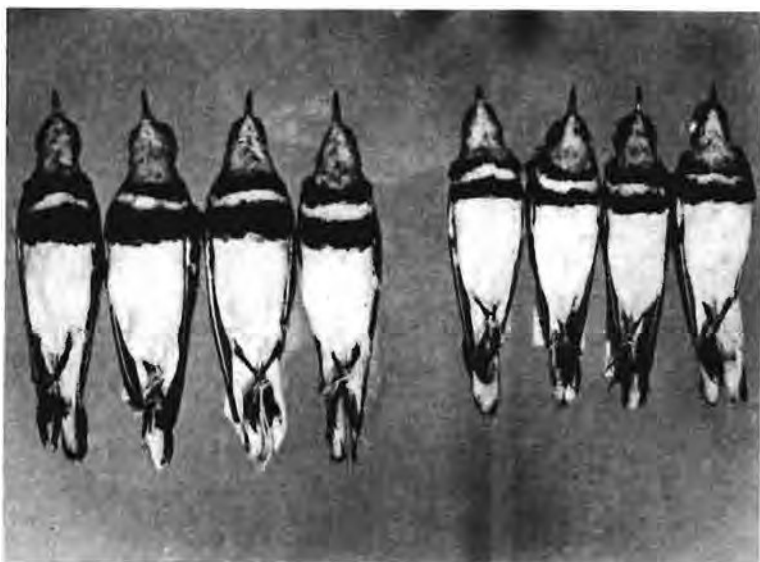
Pileum, entire dorsum, adjacent wing surfaces and tertials about Saccardo's Umber. Flattened wing-length of topotypes 110-118,5 mm.

Range: As given in the above discussion.

Remarks: This is probably the form recorded by Tree, *loc. cit.*, as a non-breeding visitor to the Mashonaland area of Zimbabwe and presumably adjacent regions of south-central Africa in the "wet season", *i.e.*, November/December - March, when frequenting the verges of man-made impoundments.

(b) ***Charadrius tricollaris pelodromus***, subsp. nov.

Type: ♂, adult. Incoluane, Macia district, Sul do Save, southern Mozambique, at 25° 04' S., 32° 56' E. 3 May, 1966. Collected by



CHARADRIUS TRICOLLARIS VIEILLOT

Ventral aspect of specimens of the Treblebanded Sandplover from the South African Sub-Region to show marked variation in general size and depth of the lower breast-band.

Left four:

left to right:

♂ ad. Seahaven, East London, Cape. 26 August, 1954.

♂ ad. 40 km Colesberg-Petrusville road. 29 August, 1961.

♀ ad. lower Gonubie R., East London. 11 May, 1960

♀ ad. Kei R. bridge, Bolo, eastern Cape. 5 April, 1965.

Right four:

left to right:

♂ ad. Lutembwe R., Chipata, Zambia. 14 April, 1955.

♂ ad. Humani Ranch, Sabi R., Zimbabwe. 7 July, 1973.

♂ ad. Lagoa de Ura, near Beira, Mozambique. 8 September, 1968

♀ ad. Chicumbane, lower Limpopo R., Mozambique. 4 June, 1971.

Photo: W.S. Yerbury.

Durban Museum personnel. In the collection of the Durban Museum, D.M.Reg.No. 21 045.

Differs from the previous taxon in having the pileum appreciably darker and the white over the hind neck more broadly edged caudad with black; dorsum, adjacent wing surfaces and tertials colder and greyer, earthen brown (about greyish Olive-Brown), lacking the reddish nuance of the foregoing. Ventrally, usually with the lower of the two black breast-bands distinctly less deep. Size ranging smaller, this often quite marked in the prepared skin. Wings in eastern coastal breeders 105 - 114/115 mm.

Range: Ethiopia, the southern Sudan, Somalia (mainly north-western), Kenya, Uganda, Tanzania, eastern and southern Zaire, northern and eastern Angola, Zambia, Malawi, Mozambique, Zimbabwe, northern and eastern Transvaal, and the coastal strip of Zululand to coastal Natal and Transkei. Also present northern Cameroun, parts of Nigeria and Chad.

Measurements of the Type: Wing 110,5, exposed culmen 14, tarsus 23, tail in moult mm.

ACKNOWLEDGEMENTS

For assistance with the loan of material I am grateful to Dr D.W. Snow, Sub-Department of Ornithology, British Museum (Nat.Hist.), Tring, the East London Museum (Mr C.J. Vernon), and the Transvaal Museum, Pretoria (Dr A.C. Kemp). Both Mr C.W. Benson and Mrs F.M. Benson most kindly measured all the specimens in the British Museum (Nat.Hist.) collection for me. Dr Bryan G. Donnelly, Ornithologist of the National Museum, Bulawayo, graciously provided measurements of Zimbabwean specimens, while Dr H.E. Wolters of the Museum Alexander Koenig, Bonn, rendered prompt assistance with nomenclatural issues

VARIATION IN THE CHORISTER ROBIN *COSSYPHA DICHROA* (GMELIN), 1789

The Chorister Robin *Cossypha dichroa* (Gmelin), 1789: Knysna, southern Cape, is a monotypic endemic of the temperate evergreen forests of the southern and eastern parts of the Republic of South Africa, extending from about Mossel Bay, Cape, north in the east to the Zoutpansberg in the northern Transvaal. Variation in the present robin was studied some fifteen years ago by Quickelberge, *vide Durban Mus. Novit.*, vol. viii, 5, 1966, pp. 39 - 45, who recognised two subspecies: the nominate in the south of the range, and a second, *C.d. haagneri* Gunning, 1909: Ngqeleni, Transkei, extending from the interior of the Transkei and Natal, north to northern Transvaal. The name *haagneri* was given in the first instance to either an aberration or a cross between *C.dichroa* and *C.natalensis* Smith, 1840: Durban, Natal, and is not available for use for a subspecies (*vide* Clancey, *Durban Mus. Novit.*, vol. x, 12, 1975, pp. 167, 168). Furthermore, a new study of much recently collected material shows that the characters employed by Quickelberge are simply the result of seasonal colour change, the dorsal colouration of the present species changing with the aging of the plumage and the action of light from Dark Neutral Gray (Ridgway (1912), pl. liii) when newly moulted to Dark Mouse Gray.