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THE RACES OF THE AFRICAN WOOD-DOVE  
TURTUR AFERA. L. RAND  
CURATOR, DIVISION OF BIRDS

In identifying the collection of birds made in Liberia by Mr. Harry Beatty in 1947 and 1948, it was found that specimens of *Turtur afer* could be assigned to no recognized race. A review of previous treatment indicated a variety of conclusions, and it was necessary to make a survey of the species.

The treatment of the races in this species has been far from uniform. Sclater and Mackworth-Praed (1920, p. 835), in showing that *T. afer* and *T. abyssinicus* were different species, made the first important advance in understanding the present species. They suggested there might be several races. Sclater recognized three races (1924, p. 172): *afer*, *kilimensis*, and *mearnsi*. Friedmann (1930, p. 240), in reviewing the species, accepted Sclater's three races and rejected Gyldenstolpe's (1924) conclusion that *T. a. sclateri* Rothschild, described in 1917, be recognized. Bannerman (1931, pp. 360 ff.) also accepted Sclater's arrangement, and rejected Bates's (1928) proposal that *kilimensis* be synonymized with *afer*. However, Peters (1937, p. 112) recognized only two races, *afer* and *mearnsi*, accepting Bates's findings. Chapin (1939, p. 148) again accepted the three races as used by Sclater. However, White (1949, p. 284) would recognize no subspecies.

The material available in the Conover Collection and the Chicago Natural History Museum Collection includes 58 specimens.

The geographical variation is as follows:

*Upper parts:* Birds from Liberia, Portuguese Guinea, and Abyssinia have a dull brown back, with little or no rich rufous or vinaceous tinge. The palest birds are from Portuguese Guinea, the darkest ones from Liberia. Birds from Tanganyika Territory, Uganda, Cameroon, and southern Belgian Congo and Angola have more reddish brown or vinaceous-tinged backs, which perhaps become

darker in Angola birds and richest in color in those from Cameroon. Additional dorsal variation is shown in the strong tendency for Abyssinian birds to have a brownish wash in the gray of the nape; for Liberian birds to have deeper and clearer gray heads; and for those from Portuguese Guinea to have a reduced amount of black on the tips of the upper tail coverts.

*Under parts:* The most striking geographical variation is for the Abyssinian birds to have whiter abdomen and flanks, and this white of greater extent than in most other birds. The Portuguese Guinea birds have a vinaceous gray abdomen; there are none with a buffy tinge. In the other series, the abdomen may or may not be buffy tinged. The single Tanganyika bird has little trace of buffy; the single Angola bird has a pronounced buffy tinge, probably the chances of sampling.

There is slight geographical variation in the color of the breast, which follows in general that of the back but to a less marked degree; the Liberian birds have the darkest and most grayish vinaceous breast, and that of Portuguese Guinea and Abyssinian birds is a little paler, while the other series with the richer brown backs have a slightly richer and brighter vinaceous breast.

*Size:* The Liberian birds (male 102–112, average 106 mm.) are slightly smaller than the other populations (male 107–120 mm.).

The extremes of variation are only fairly distinct; the pale, dull Portuguese Guinea birds are at one extreme; the darker, richly colored Cameroon and Angola birds are at the other. The populations can not be separated into clear cut races; certain Uganda birds resemble Abyssinian birds in the whiteness of the abdomen and flanks; certain others approach the Abyssinian and Liberian series in the dullness of the upper parts. However, it seems advisable to recognize four subspecies (one hitherto undescribed) rather than three: one for the birds with the reddish brown backs; one for those with the dull backs and white bellies; one for the birds with the pale, dull backs and gray bellies; and one for those with dark, dull backs, gray or buffy bellies, and smaller size. The races recognized are as follows:

(1) **Turtur afer afer** (Linnaeus).

*Columba afra* Linnaeus, 1766, Syst. Nat., ed. 12, 1, p. 284—Senegal.

While we have no toptotypical birds from Senegal, we have from Portuguese Guinea six skins which I assume represent this race. While Bates (1928, pp. 34–35) doubted the occurrence of this species

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in Senegal, Bannerman (1931, p. 310) implies that he has seen Senegal specimens and includes Senegal in the range. The Portuguese Guinea birds are characterized by their pale coloration above, with a grayish olive tinge. The present series also averages less black on the tips of the upper tail coverts. Though this last is a widely variable character none of the present six specimens has as much black as is shown by some specimens of each of the following races. None has a buffy tinge to the belly, which is vinaceous gray. The wing measurements are: male 113, 114, 114, 115, 115; female 114 mm.

(2) **Turtur afer mearnsi** Sclater and Mackworth-Praed.

*Turtur afra mearnsi* Sclater and Mackworth-Praed, 1920, Ibis, p. 836—  
Roguecha, south of Addis Ababa, Ethiopia.

We have nine specimens from Abyssinia. This race apparently was first questioned by White. It was described as a pale race, compared with *afer*. However, compared with our series of *afer* the upper parts are not paler, but slightly darker. Our material shows it to be a fairly well-defined race compared with *afer* on the basis of the more olive brown upper parts, with less of the grayish tinge of that race; the average more extensive black on the tips of the upper tail coverts; the less clear bluish nape (more brownish) and especially the much whiter lower breast, flanks and abdomen as given in the original description. All our specimens are separable from *afer* on this character. The wing measurements of our series are: male 113, 114, 118, 118, 120; female 107, 115, 115, 116 mm.

(3) **Turtur afer kilimensis** (Mearns).

*Chalcopelia afra kilimensis* Mearns, 1915, Proc. U. S. Nat. Mus., 48, p. 388—  
Kilimanjaro, 5,000 feet.

We have specimens as follows that I refer to this race: Tanganyika, 1; Uganda, 16; Belgian Congo (Kasai), 5; Angola, 1; and Cameroon, 11. This race has been variously treated, chiefly, I suspect, because real *T. a. afer* was not used in many of the comparisons. Some authors, notably Peters and Bates, synonymized it with the nominate race *afer*. Probably, however, as Bannerman says, if Bates had examined Senegal birds he would have accepted two races in West Africa. Chapin accepts this race without comment.

In our material *T. a. kilimensis* is characterized by the richer coloration, which distinguishes it from both the preceding forms; the upper parts are slightly richer brown than in *mearnsi*, and much

more so than in *afer*; the under parts have the vinaceous of the breast more pinkish.

Occasional birds from Uganda approach Abyssinian birds in the amount of white in the under parts, and other specimens approach them in the color of the upper parts. While all the present specimens are separable, on one or the other characters, it is possible that indistinguishable specimens occur. There is some variation within series from the same locality; in addition to slight variation in general color, a number of birds, especially females, have a wash of brownish on the nape; the amount of black on the tips of the upper tail-coverts varies somewhat. The individual variation in the buffy of the under parts is shown by the sixteen Uganda birds: in one the abdomen is white, in seven it is distinctly buffy, in seven slightly buffy, and in one rather grayish vinaceous.

There is some variation between the series from various localities. Cameroon birds average slightly brighter, more richly colored than do Uganda birds; the single Tanganyika bird has a whitish belly, but matches certain Uganda specimens in this. The Belgian Congo (Kasai) birds are rather dull and the single Angola bird is most different, having the richest vinaceous buffy belly, and the darkest rather rich brown back of any of this series.

The measurements of these birds are: Cameroon: male 109, 110, 110, 113, 114; female 107, 109, 112, 112, 114. Uganda: (12) 113-119 (av. 114.5 mm.); female 109, 110, 115. Belgian Congo: male 111, 114; female 110, 111, 114. Tanganyika Terr.: male 110 mm.

The race *sclateri* Rothschild (1917) was described from Entebbe but compared with *abyssinicus*. Gyldenstolpe (1924) recognized it as different from *kilimensis* on the basis of browner color above and more whitish flanks and abdomen, but otherwise it has been synonymized with *kilimensis*. Though we have six topotypes of *sclateri* we have none of *kilimensis*, and I am following recent authors in considering them the same.

#### (4) *Turtur afer liberiensis* subsp. nov.

*Type*.—No. 17293 Conover Collection, from Firestone Plantation, Harbel, 35 miles from Monrovia, Liberia. Adult male. Collected July 10, 1948, by Harry Beatty.

*Diagnosis*.—Distinguished from the above three races by its darker, dull brown upper parts, and its slightly darker gray crown and nape. It also averages slightly smaller.

*Measurements.*—Wing: male 102, 104, 105, 106, 108, 112; female 101, 102, 106.

*Range.*—Probably Upper Guinea, west to coastal Sierra Leone.

*Specimens examined.*—Liberia, Firestone Plantation, 35 miles from Monrovia, nine adults, one subadult.

*Remarks.*—There is some variation in this series, especially in the color of the abdomen; in five specimens it is rather buffy; in four it is slightly buffy; and in one there is very little buff.

This race is distinguished from *T. a. afer*, occurring to the north of it, in the darker less grayish brown upper parts. There is no overlap of the two series. Compared with *mearnsi* of Abyssinia the color of the upper parts is very similar, but slightly darker, there is a lesser amount of white in the under parts, and the head is clearer and deeper gray. Again there is no overlap in this series. Compared with *kilimensis* there are the following characters: the deeper, duller, less rufous or vinaceous tinged back, the darker gray of the head, and the slightly duller gray of the breast. To indicate the degree of separability, the 34 specimens of *kilimensis* and the 10 *liberiensis* were mixed and then were sorted by color characters without reference to the labels. Nine of the *liberiensis* were correctly identified and 29 out of 34 *kilimensis* were correctly identified, i.e. 85 per cent were correctly separated from 90 per cent on color, without using the additional character of size. It is interesting in this connection that the Cameroon birds are more clearly separable from Liberian birds (all are distinguishable) than are the more distant populations, some Uganda birds, and especially the Kasai, Belgian Congo, birds.

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