

laid by another. No other explanation of this extraordinary state of affairs is so satisfactory as the hypothesis of mimetic resemblance, whether that of Bates, which claims the mimic to be an edible species living on the reputation of a distasteful species which it so closely resembles; or the theory of Fritz Müller, which claims that each species gains by the evil reputation of the other. Each of these hypotheses depends upon the great fact of natural selection: and it is claimed that the facts brought forward in this short paper show the reality of mimicry, and of the power of natural selection to enforce it.

DESCRIPTIONS OF THREE NEW AFRICAN WEAVER-
BIRDS OF THE GENERA *ESTRILDA* AND
GRANATINA.

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This paper is the nineteenth dealing with the results of the Smithsonian African Expedition under the direction of Col. Theodore Roosevelt. It includes one new form from the collection of the Childs Frick African Expedition.

The names of special tints and shades of colours used in this paper conform to Robert Ridgway's 'Colour Standards and Colour Nomenclature,' issued March 10, 1913. All measurements are in millimètres.

ESTRILDA RHODOPYGA POLIA, NEW SUBSPECIES

(GATO WAXBILL)

Type-specimen.—Adult male, Cat. No. 247,436, U.S. National Museum; collected on the Gato River, altitude 4,000 feet, Southern Abyssinia, May 2, 1912, by Edgar A. Mearns. (Original number, 21,687.)

Characters.—Similar to *Estrilda rhodopyga rhodopyga* from

north-east Africa, but more heavily cross-barred above and below, whiter on the throat, and paler on the chest and abdomen. From *Estrilda rhodopyga hypochra* (Mearns), described below, it differs in being much more heavily cross-barred above and below, and greyer on the upper surface. The bill of typical *E. r. polia* differs from other subspecies in having a broad red band on the sides.

Measurements of type (adult male).—Length (of skin), 100 ; wing, 46 ; tail, 45 ; culmen (chord), 10 ; tarsus, 12.5.

Geographical range.—Lowlands of Southern Abyssinia and adjacent region of Somaliland (Dr. A. Donaldson Smith), south to Mount Lololokui (Edmund Heller), the northern Guaso Nyiro River, and Mombasa, British East Africa (Dr. Glover M. Allen).

Remarks.—Specimens from the coast and adjacent portion of British East Africa are slightly darker than those from Somaliland and Southern Abyssinia, and sometimes lack the red band on the sides of the bill. They are, in fact, intermediate between the forms *hypochra* and *polia*, but nearer the latter.

ESTRILDA RHODOPYGA HYPOCHRA, NEW SUBSPECIES

(KAPITI WAXBILL)

Type specimen.—Adult male, Cat. No. 213,786, U.S. National Museum ; collected between Kapiti Plains Station, Uganda Railway, and camp at Potha, British East Africa, April 27, 1909, by Edgar A. Mearns. (Original number, 15,632.)

Characters.—Similar to *Estrilda rhodopyga rhodopyga* from north-east Africa, but paler and browner above and below. On the upper parts the cross-bars or vermiculations are fainter, becoming almost obsolete on the under parts. The crown is less greyish, the throat whiter, and the carmine red of the lower back and outer surface of wings less restricted. The under parts are Isabella colour instead of tawny-olive. Bill black, with a trace of red on sides. Size similar to the typical form.

Measurements of type (adult male).—Length (of skin), 103 ; wing, 47 ; tail, 45 ; culmen (chord), 9.5 ; tarsus, 12.

Average measurements of three adult male topotypes.—Wing, 46·7; tail, 44·7; culmen (chord), 9·7; tarsus, 13·3.

Measurements of adult female (Cat. No. 118,268, Taveta, British East Africa, Dr. W. L. Abbott).—Wing, 44; tail, 43; culmen (chord), 9·6; tarsus, 13.

Geographical range.—Interior of British East Africa, from Kapiti Plains to Taveta.

Remarks.—The young of this subspecies have been described by Oberholser.¹

The subspecies of *Estrilda rhodopyga* (Sundevall) are as follows :

1. *Estrilda rhodopyga rhodopyga*, C. J. Sundevall, Öfversigt af Kongl. Vetenskaps-Akademiens Förhandlingar, Årg. VII, No. 5, for May 1850, p. 126. Type locality: North-East Africa (Hedenborg coll.).

2. *Estrilda rhodopyga polia*, new subspecies. Type locality: Gato River, near Gardulla, Southern Abyssinia.

3. *Estrilda rhodopyga hypochra*, new subspecies. Type locality: Kapiti Plains, British East Africa.

4. *Estrilda rhodopyga centralis*, Konrad Kothe, Ornith. Monatsb., XIX., No. 4, April 1911, p. 70. Type locality: Kissenje, north shore of Lake Albert, Uganda.

5. *Estrilda rhodopyga Frommi*, Konrad Kothe, Ornith. Monatsb., XIX., No. 4, April 1911, p. 70. Type locality: Karema, Lake Tanganyika.

GRANATINA IANTHINOASTRA ROOSEVELTI,² NEW SUBSPECIES
(ROOSEVELT'S CORDON-BLEU)

Type-specimen.—Adult male, Cat. No. 214,634, U.S. National Museum; collected on the Southern Guaso Nyiro River, Sotik District, British East Africa, June 14, 1909, by Edgar A. Mearns. (Original number, 16,045.)

Characters.—Larger than *Granatina ianthinogastra ianthinogastra* or *G. i. Hawkeri*. Males, compared with typical *ianthinogastra* from the Tana River, British East Africa, are decidedly

¹ Proc. U.S. Nat. Mus. XXVIII., No. 1411, July 8, 1905, p. 880.

² Named in honour of Col. Theodore Roosevelt, leader of the Smithsonian African Expedition.

more greyish on the mantle, less rufescent on the head, and with darker, more brownish under wing-coverts and edging to the under surface of the inner webs of the quills. *Granatina ianthinogastra Hawkeri*, the only previously described form of

<i>Granatina ianthinogastra ianthinogastra</i>	<i>Granatina ianthinogastra Hawkeri</i>	<i>Granatina ianthinogastra Roosevelti</i>
<i>Adult Male</i>	<i>Adult Male</i>	<i>Adult Male</i>
Mantle snuff brown	Mantle drab	Mantle cinnamon drab
Head orange cinnamon	Head cinnamon	Head sayal brown
Middle rectrices black	Middle rectrices sepia	Middle rectrices black
Wing Tail Culmen	Wing Tail Culmen	Wing Tail Culmen
52.4 62 10.9	55 62 10.7	60.8 68.5 11.5
Tarsus	Tarsus	Tarsus
15.9	16	18
<i>Adult Female</i>	<i>Adult Female</i>	<i>Adult Female</i>
Pale feathers around eye pallid soft blue-violet	Pale feathers around eye pallid soft blue-violet	Pale feathers around eye wistaria blue
Lower abdomen whitish buff	Lower abdomen buffy white	Lower abdomen tawny-olive
Under tail-coverts pale pinkish buff	Under tail-coverts dirty white	Under tail-coverts blackish brown, with paler edges to the feathers
Wing Tail Culmen	Wing Tail Culmen	Wing Tail Culmen
51 57 10.9	51 54 10.3	60.5 63 11.2
Tarsus	Tarsus	Tarsus
15.4	15.5	18
<i>Young in First Plumage</i>	<i>Young in First Plumage</i>	<i>Young in First Plumage</i>
Unspotted below	Not seen	Unspotted below
Bill blackish, horn colour on base of mandible		Bill blackish, horn colour on base of mandible
Under parts clay colour, paler on throat, whitish on lower abdomen and crissum		Under parts nearly uniform snuff brown

this species, inhabits the desert regions of Somaliland, and is slightly distinguished from typical *ianthinogastra* by its paler colouration, adult males having the mantle and wings paler greyish brown, and the head paler and more ochraceous than in the other forms. Females of *Roosevelti* show differences, similar to those mentioned above, in the colouration of the upper parts; the feathers surrounding the eye are bluish instead of pale lilac; and the lower abdomen and crissum are

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dark, with no trace of the whiteness or pale rustiness which those parts invariably present in *ianthinogastra* and *Hawkeri*.

Measurements of type (adult male).—Length (of skin), 130 ; wing, 60 ; tail, 70 ; culmen (chord), 12 ; tarsus, 18.

Geographical range.—Sotik District, British East Africa.

Remarks.—The three subspecies of *Granatina ianthinogastra* are represented in the material before me by fifty specimens, obtained at localities ranging from Northern Abyssinia south to the plains east of Mount Kilimanjaro and west to the Sotik District of British East Africa. Series of topotypes of each form are included in this collection, the greater part of which was gathered by the author and others on the Childs Frick African Expedition, 1911–12.

The salient differences in the three forms of *Granatina ianthinogastra* are shown on p. 137.

NOTES

ON CRESTED CRANES AT KERICHO

BY C. M. DOBBS

During July of this year two crested cranes, a male and a female, took up their abode in the station. I felt certain they were nesting somewhere close by and told the natives to keep a look-out. On September 20 a Lumbwa native brought in a bird which he called *koñgonyo*. This was obviously the offspring of these birds and a couple of days later another young bird, somewhat smaller, was brought in, but unfortunately only survived a few days. As only the two have been found I take it they comprise the whole family. The parent birds spend the whole day in the prison farm picking about for insects &c. They retire at night about 5 or 6 P.M. to the vicinity of the river at the bottom of the hill, regularly returning every morning back to the farm about 6 A.M.

The surviving young bird had to be fed forcibly with a spoon for about twenty-four hours, but since then it has