

passing into orange towards the white inner side (the difference between the red-brown and the orange being due to the circumstance that in the former case the bases of the hairs are ash-grey, in the latter white). The colour of the legs after Ridgway (Nomencl. Col.) is tawny (pl. v. fig. 1) with a wash of Chinese orange (pl. vii. fig. 15).

Length of body 46 cm., tail ca. 60, height at shoulder ca. 32, height at hip ca. 35 cm.

The appearance of the cranial sutures, the teeth, and the bones prove that the animal is not an old one, though it appears to have attained its full size. As it was brought over from Africa in the year 1887 and died in 1891, it was at least five years old.

Skull.—Line from root of nose to upper jaw rather straight in profile, basis only of the nasal opening elevated; angle with the line of forehead about 30 degrees. Nasal opening elongated (7×16 mm.). Orbits round, projecting at their inner upper angle.

Greatest length (gnathion to occiput) 94 mm.; basal length (basion to gnathion) 64.2; greatest (zygomatic) breadth 61.2; breadth of orbit 20.7; height of orbit 22.3; interorbital breadth 4.4; intertemporal constriction 42.2; brain-case—length 70.4, breadth 53.1, height (basilar suture to bregma) 43.9; combined length of upper premolars and molars 22.4, of molars only 15.8; length of palate 33.9, breadth at inside of m^2 17.1; free length of canine 15.7.

Length of pelvis 106, breadth (*il.*) 61; length of vertebral column ca. 290; length of tail ca. 540; humerus 116, ulna 125, radius 135, manus 96, femur 145, tibia 150, fibula 143, pes 140.

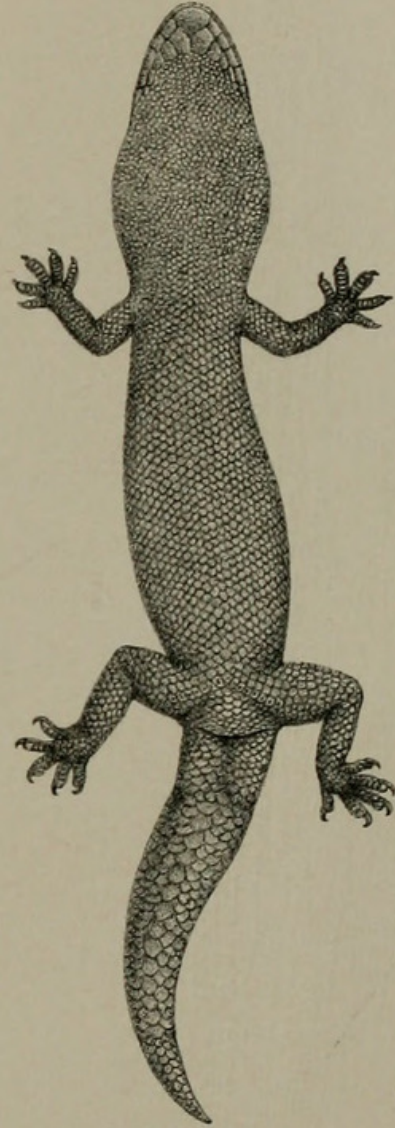
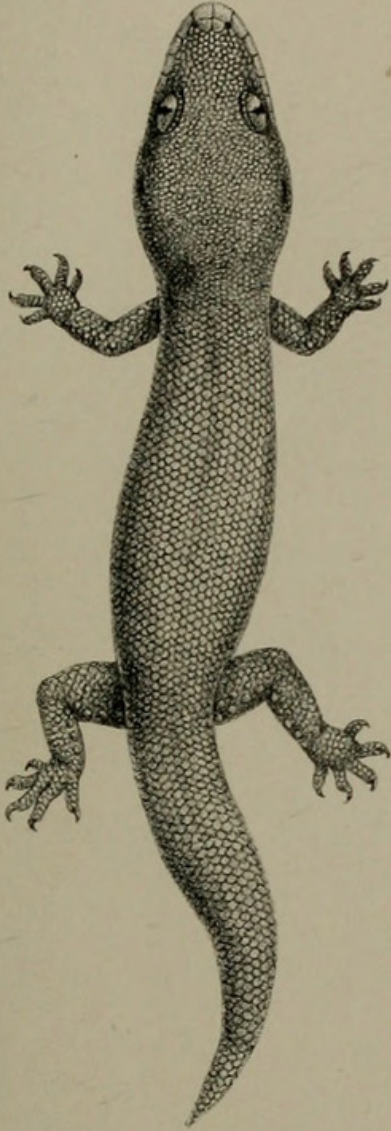
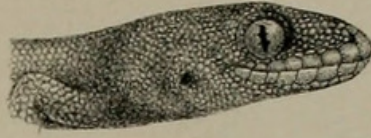
4. Report on the Collection of Reptiles and Fishes made by Dr. J. W. Gregory during his Expedition to Mount Kenia. By Dr. A. GÜNTHER, Keeper of the Zoological Department, British Museum.

[Received January 12, 1894.]

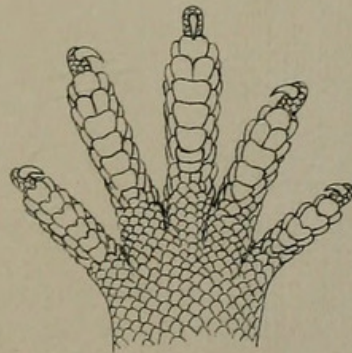
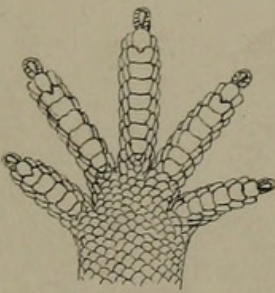
(Plates VIII.–XI.)

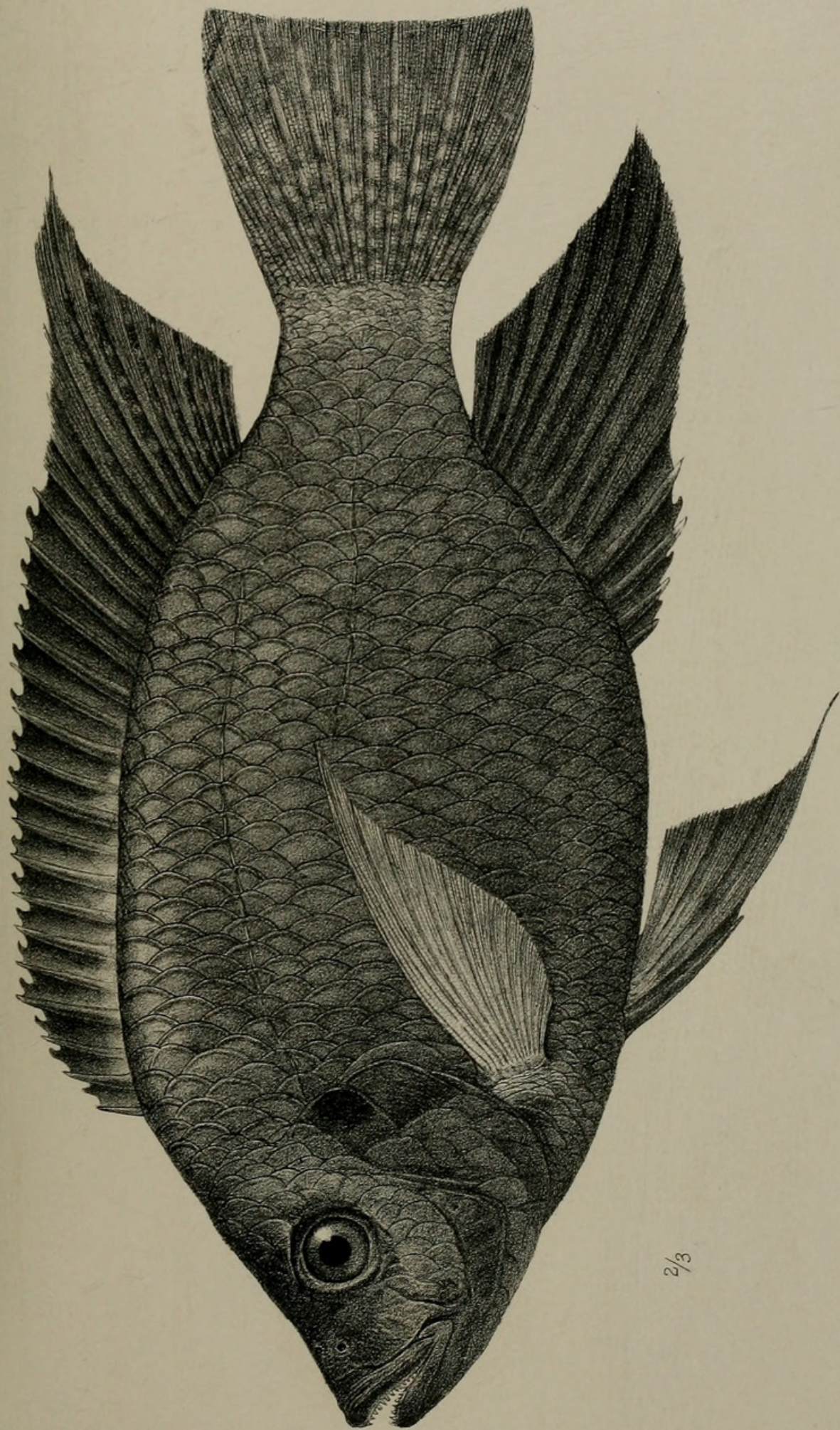
Considering the difficulties Dr. Gregory had to overcome in attending unaided to the various duties of a scientific traveller, and the fact that the formation of zoological collections was but a secondary object of his expedition, we may be very well satisfied with the series of Reptiles and Fishes which he was able to bring home.

The Reptiles are referable to 38 species, the majority being well-known forms of the Central East-African Fauna, but they nevertheless form a valuable contribution to our knowledge of the range of the several species, inasmuch as the collector took great care in noting the localities where the specimens were obtained, and



$\times \frac{1}{2}$



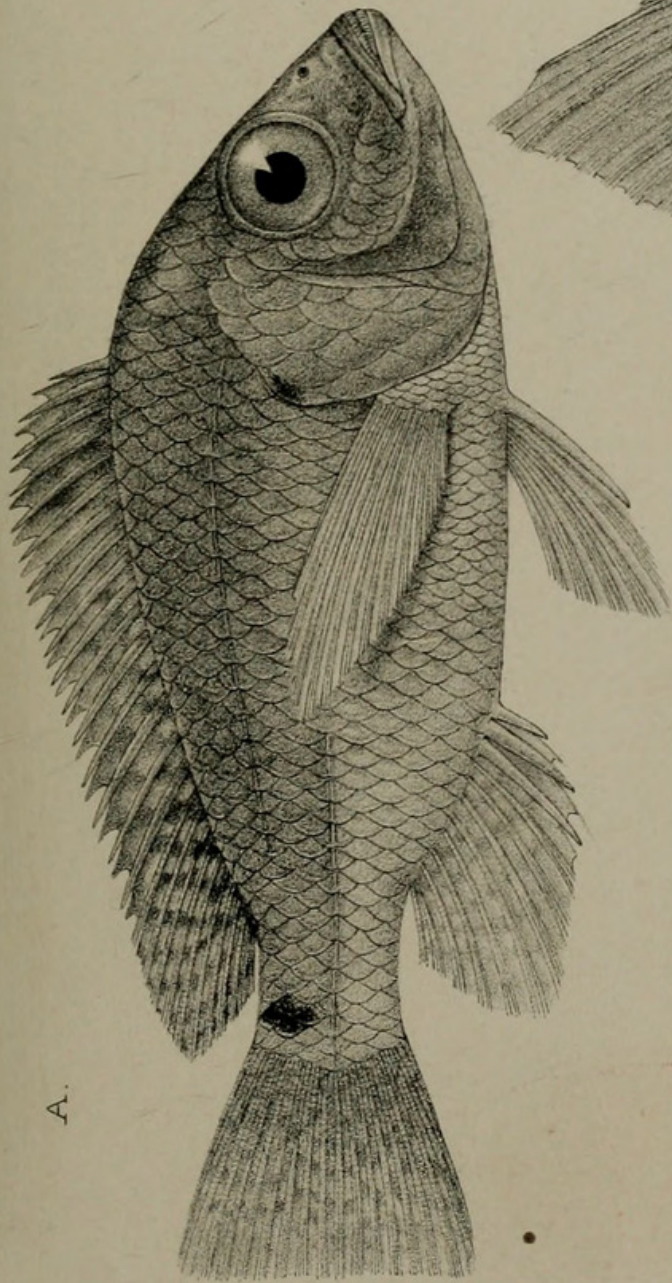


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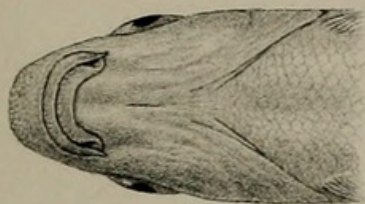
R. Minton del. et lith.

OREOCHROMIS NIGER.

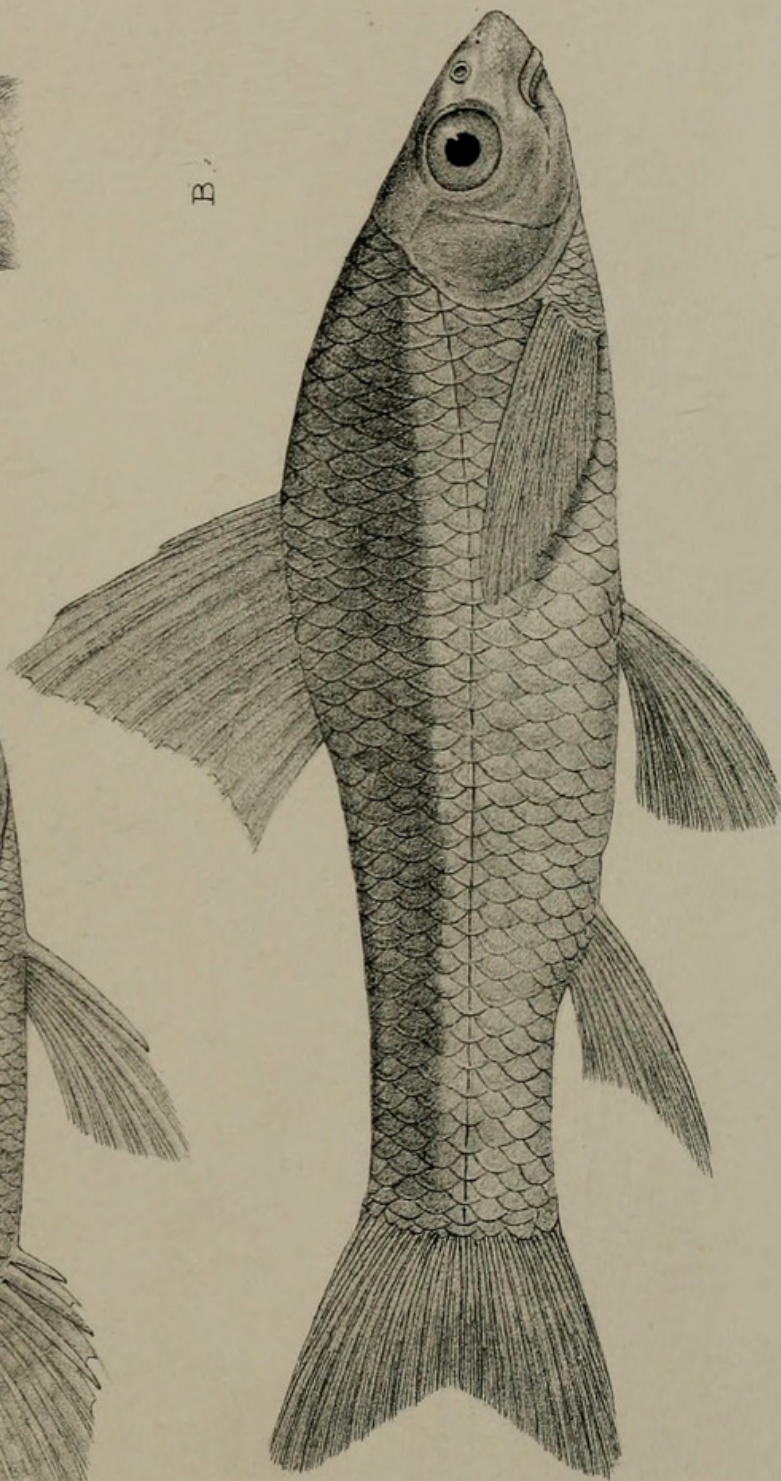
Minton Bros. imp.

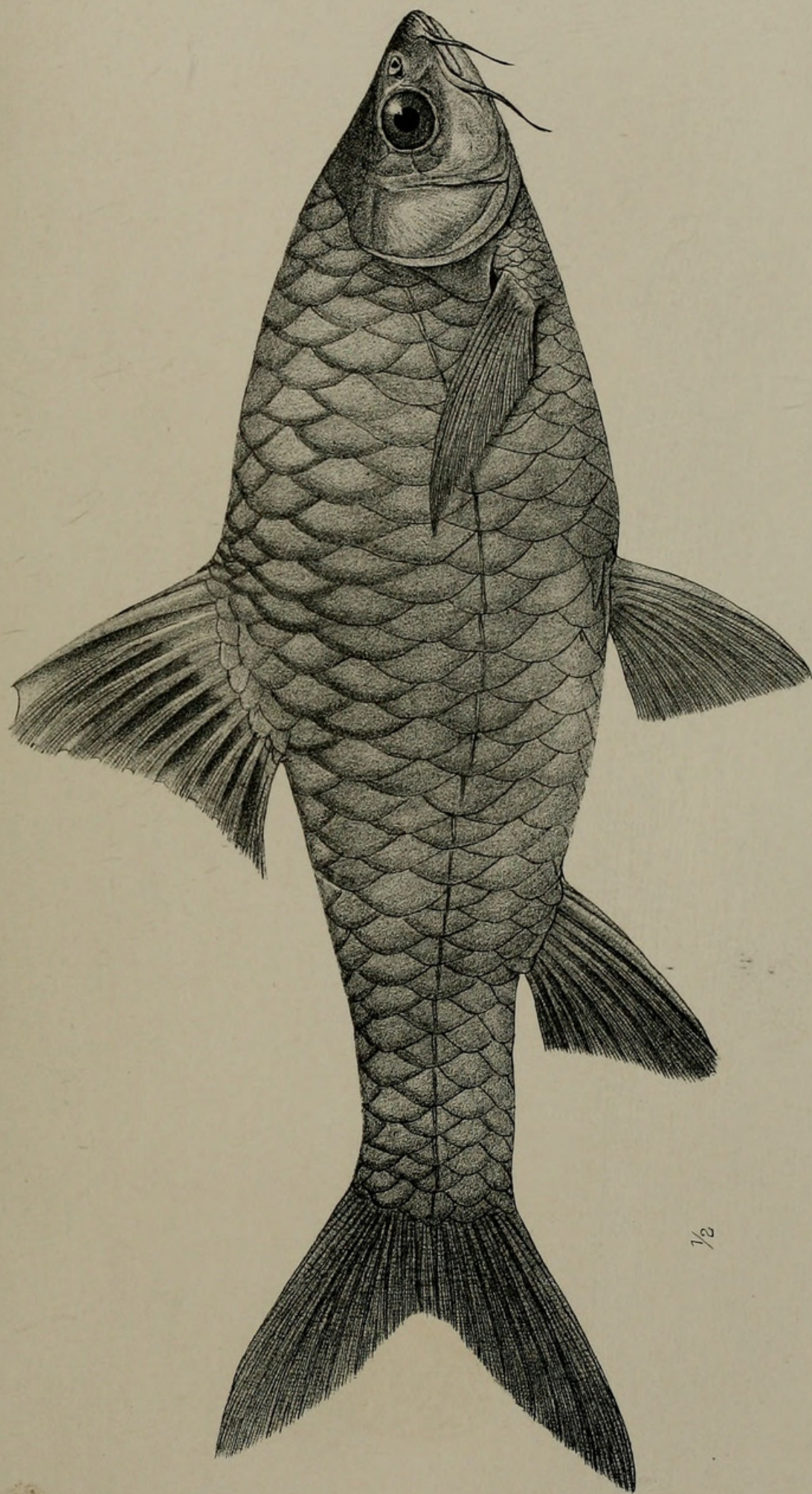


A.



B.





$\frac{1}{2}$

these will be fully explained in his forthcoming itinerary of his expedition¹. Besides, he discovered two new forms, one of the polytypic genus *Agama*, and the other a singular new genus of Geckoids. Several of the species had been previously known from one or two other localities only: the Egyptian *Dipsas obtusa* has been discovered by him to extend southwards to the Equator, and the West-African *Hemidactylus brookii* proves to be one of those which extend right across the Continent. This is also the case with *Dermophis thomensis*, one of the seven Batrachians collected by Dr. Gregory.

So far as we know at present, some of the genera of Fishes inhabiting Tropical Africa, like *Chromis* and *Barbus*, preponderate over the others as regards the number of species. Not only are the various fresh waters inhabited by distinct local forms of the genera mentioned, but almost every piece of fresh water harbours several species of the same genus. Six out of the thirteen species of which specimens have been collected by Dr. Gregory are new, and my examination of them has been greatly facilitated by the large size of the specimens and the excellent state of their preservation.

REPTILES.

1. *TESTUDO PARDALIS*. On the Kikuyu escarpment south of Lake Naivasha.

2. *CINYXIS BELLIANA*, Gray. East of Taro, west of Witu.

3. *STERNOTHERUS SINUATUS*, Smith. Upper Athi R.

4. *PELOMEDUSA GALEATA*, Schoepff. Kapte Plains, Ukambani, alt. 3300 ft.

5. *HEMIDACTYLUS MABUIA*, Moreau. Ngatana.

6. *HEMIDACTYLUS BROOKII*, Gray. Kibibi Basin.

Hitherto known from various localities on the West Coast.

BUNOCNEMIS, g. n. Geckot.

Body and tail covered with small, smooth, imbricate scales. Digits and toes free, with the terminal phalanges short and clawed, those of the digits being much shorter than those of the toes. The lamellæ on the lower side of the fingers and toes are mostly undivided, though many have a more or less shallow notch in their anterior margin. A complete division takes place only in the lamellæ of the outer toe and in the penultimate lamella of the other toes. The hinder part of the legs with large tubercles. Præanal pores. Pupil vertical.

7. *BUNOCNEMIS MODESTUS*, sp. n. (Plate VIII.)

Snout rather depressed, moderately long, longer than the

¹ Geogr. Journ. vol. iii. (1894).

distance between eye and ear-opening and twice as long as the eye; ear-opening small. Lepidosis of the head granular. Rostral quadrangular, with a median cleft above, and with a pair of small shields behind; nostril pierced between the rostral, post-rostral, first labial, and two small granular shields; eight upper and seven lower labials; mental large, pentagonal, with two large chin-shields behind. The scales surrounding the body are nearly of the same size; about eighty-six longitudinal series may be counted round the middle of the body. Tail conical, with a median series of larger scutes below. The fore part of the hind limbs is covered with small imbricate scales like the body, whilst the posterior part is granular with large subconical tubercles. Similar tubercles, but fewer in number and flatter, are seen on the hinder side of the forearm. Fifteen pores in the præanal series, which extends for some distance on the thigh. Thumb with six lamellæ, of which the penultimate is deeply notched; seven lamellæ under the second, eight under the third, and seven under the fourth fingers. Inner toe with three lamellæ, of which the middle is notched; second toe with four lamellæ, the penultimate being divided; fourth toe with six lamellæ, the penultimate being divided; fifth toe with six lamellæ, all of which are more or less notched.

Upper parts uniform brownish, lower whitish.

Total length.....	78 millim.
Head	11 „
Width of head.....	8 „
Distance of snout from vent	45 „
Tail, partly reproduced	33 „
Fore limb.....	11 „
Hind limb	15 „

A single specimen was obtained at Ngatana.

8. *LYGODACTYLUS PICTURATUS*, Ptrs. Ngatana, Tzavo.

9. *AGAMA DORIE*, Blgr. Fuladoya (Aug. 16).

10. *AGAMA GREGORII*, sp. n.

Allied to *Agama cyanogaster*.

Nostril lateral, not tubular, and below the canthus rostralis. The anterior of the upper scutes of the head are smooth, but the posterior surmounted by a small spine; occipital not enlarged; small, conical spinous scales on the sides of the throat, about the ear, and on the neck; ear larger than the eye-opening. A deep fold across the throat, but no gular pouch. Body depressed, without fold on the side of the back; back with numerous larger scales mixed among the small ones, the largest forming a tolerably regular series on each side of the median line; the two series passing into two rows of very large scutes which protect the median line of the tail. All the larger scales are keeled. Ventral scales smaller than the largest on the back, keeled, the keels terminating behind in a spine.

Limbs moderately elongate, the scales in front and on the upper part of the hind limb imbricate and strongly keeled; scales on the hinder side of the thigh small, with larger ones mixed. The third and fourth fingers nearly equal in length; fourth toe very slightly longer than the third, fifth extending beyond the first. Tail longer than the body, its scales strongly keeled, with the margins denticulated and disposed in annuli. Male with a double row of anal pores.

Upper parts bluish, with the largest scales yellow; also the head and the basal portion of the tail are yellow; throat blue; a black band across the shoulder.

	inches.	lines.
Total length	11	6
Head	1	5
Distance between vent and snout	5	2
Length of fore limb	2	6
Length of hind limb	3	6

One specimen was obtained at Mkonumbi, a grassy coast-district with salt-swamps.

11. MONITOR NILOTICUS, L. Tzavo, east of Witu.
12. MONITOR ALBOGULARIS, Daud. Taro plains.
13. MABUIA MACULILABRIS, Gray. Ngatana.
14. SEPACONTIAS MODESTUS, Gthr. On the Athi plains, woodless grass-steppes; formerly known from Mpwapwa.
15. LATASTIA LONGICAUDATA, Reuss. Fuladoya.
16. CHAMÆLEON ROPERI, Blgr. Taro plains, Ukambani.
17. CHAMÆLEON BITÆNIATUS, Fisch., = *Chamæleon hoehnelii*, Steind. Kibibi Basin, Elmeteita Basin, Gopo lal Maru (June 9), Guaso Laschau.
18. RHAMPHOLEON KERSTENII, Ptrs. Ndara, Teita Mountains, Matiliko (Aug. 3).
19. TYPHLOPS PUNCTATUS, Leach. Mkonumbi, Guaso Narok and Guaso Nairotia in Leikipia, Tzavo.
20. TYPHLOPS UNITÆNIATUS, Ptrs. Kibwezi.
21. URIECHIS CAPENSIS, Smith. Steppes south of Tzavo.
22. AMBLORHINUS NOTOTÆNIA, Gthr. Eastern Ukikuyu.
23. CORONELLA OLIVACEA, var. DUMERILII, Gthr. Ngatana.
24. DASYPELTIS SCABRA, L. Eastern Ukikuyu.
25. RHAGERRHIS TRITÆNIATA, Gthr. Kibibi Basin.

26. *RHAGERRHIS OXYRHYNCHUS*, Rnhrdt. Taro Plains.
27. *PSAMMOPHIS SIBILANS*, L. Coast-districts and Teita Mountains.
28. *PSAMMOPHIS BISERIATUS*, Ptrs. Kurawa (coast-district).
29. *AHETULLA NEGLECTA*, Ptrs. Mkonumbi.
30. *AHETULLA PUNCTATA*, Ptrs. Mkonumbi, Kurawa, Melindi.
31. *BOODON LINEATUS*, D. & B. Kapte Plains.
32. *LYCOPHIDIUM HORSTOCKII*, Schleg. Camp at Kariti, Mkonumbi, near Fuladoya.
33. *LEPTODIRA RUFESCENS*, Gm. Coast-districts.
34. *DIPSAS OBTUSA*, Reuss. Ngatana.
An Egyptian species, previously not known to extend so far southwards.
35. *CAUSUS JACKSONII*, Gthr. Ngatana, Mkonumbi.
36. *NAJA NIGRICOLLIS*, Rnhrdt. Leikipia.
37. *DENDRASPIIS POLYLEPIS*, Gthr. Steppes south of the Kiboko River; found to live in holes of the sides of deserted termite-hills.
38. *CLOTHO ARIETANS*, Merr. Valley of the Thika-thika.

AMPHIBIANS.

1. *BUFO REGULARIS*, Reuss. Common everywhere.
2. *RANA MASCARENIENSIS*, D. & B. Kibibi Basin, north of Rangan Ndari, Lamu Island.
3. *RANA GALAMENSIS*, D. & B. Mkonumbi.
Previously known from Senegambia.
4. *PYXICEPHALUS DELALANDII*, Tschudi. Kibwezi.
5. *CHIROMANTIS PETERSII*, Blgr. Taro Plains.
6. *PHRYNOMANTIS BIFASCIATA*, Smith. Mkonumbi.
7. *RAPPIA CONCOLOR*, Hallow. Guaso Nyuki near Njemps, alt. 3400 ft.
8. *MEGALIXALUS FORNASINI*, Bianconi. Ngatana.
9. *DERMOPHIS THOMENSIS*, Bocage. Ngatana.
Previously known from the West Coast.

FISHES.

1. *PROTOPTERUS ANNECTENS*, Owen. Tidal creeks at Mko-numbi.

2. *OREOCHROMIS NIGER*, sp. n. (Plate IX.)

D. $\frac{17}{11}$. A. $\frac{4}{9}$. L. lat. 29. L. transv. $\frac{4}{12}$.

Teeth very small, indistinctly bicuspid, the inner cusp being much larger than the outer; about 45 teeth on each side of the outer series of the upper jaw. Scales below the eye in two series. In a specimen eleven inches long the diameter of the eye is less than the width of the præorbital, one half of the width of the interorbital space, and equal to the depth of the scaly portion of the cheek. The height of the body is contained twice and a third in the total length (without caudal), the length of the head one third. Pectoral fin extending to the anal; series of minute scales cover the rays of the caudal fin. Scales smooth. Greenish black; vertical and ventral fins and a spot on the operculum deep black.

Two specimens, of which the larger is 11 inches long, were obtained from pools on the Kibwezi River below its reappearance.

One of these two specimens has distinctly three series of scales on the cheek, but on one side of the head only.

Closely allied to *Oreochromis hunteri*, Proc. Zool. Soc. 1889, p. 70.

3. *CHROMIS SPILURUS*, sp. n. (Plate X. fig. A.)

D. $\frac{15-16}{10}$. A. $\frac{3}{8}$. L. lat. 30. L. transv. $\frac{4}{8+x \text{ small ones}}$.

Teeth distinctly bicuspid, with the inner cusp broadest, brown at the tip, small, about thirty-six on each side of the outer series of the upper jaw. Scales smooth, those below the eye in two series. The diameter of the eye of a specimen $4\frac{1}{2}$ in. long is less than the width of the interorbital space, and more than the width of the præorbital or than the depth of the scaly portion of the cheek. Interorbital space flat. The height of the body is somewhat more than the length of the head, and contained twice and two-thirds or twice and a half in the total length (without caudal). The pectoral fin extends to or a little beyond the origin of the anal. Caudal nearly scaleless. Greenish, silvery on the sides; a blackish spot on the end of the operculum, and another on the side of the caudal peduncle, just below the upper profile and close to the root of the fin. Dorsal and caudal fins with blackish spots arranged in rows.

Several specimens were obtained from the Mwangaden River in N. Giriama; the largest is $4\frac{1}{2}$ inches long.

4. *CLARIAS LAZERA*, C. V. Ngatana.

A Nilotic species.

5. *EUTROPIUS DEPRESSIROSTRIS*, Ptrs. Ngatana.

6. *CLAROTES LATICEPS*, Rüpp. Ngatana.

Known from the Nile and West Coast.

7. *SYNODONTIS ZAMBEZENSIS*, Ptrs. Ngatana.8. *ALESTES AFFINIS*, sp. n.

Allied to *Alestes imberi*.

D. 11. A. 18-19. L. lat. 21. L. transv. $\frac{5}{3}$.

The height of the body is one third of the total length (without caudal); the length of the head two sevenths. The origin of the dorsal fin is distinctly behind the base of the ventrals; pectoral reaching the ventral. Silvery, with an indistinct shining band along the side; a blackish spot behind the shoulder and another at the root of the caudal.

Three specimens, $3\frac{1}{2}$ inches long, were obtained at Merifano on the Tana River.

9. *LABEO GREGORII*, sp. n. (Plate X. fig. B.)

D. 14. A. 7. L. lat. 37. L. transv. $\frac{5}{5}$.

Mouth broad, crescent-shaped; lower lip thick and fringed with an inner fold which is covered with horny substance. Snout thick, produced, obtuse in front, much projecting beyond the lower jaw, without lateral lobe; maxillary barbel small, hidden in a deep lateral groove. Eye rather large, two sevenths of the length of the head, rather shorter than the snout, and somewhat nearer to the end of the snout than to the gill-opening. The length of the head is contained thrice and two thirds in the total length (without caudal), the depth of the body thrice and a half. Interorbital space broad, scarcely convex, its width being one half of the length of the head. There are four longitudinal series of scales between the lateral line and the root of the ventral fin. Upper margin of the dorsal fin oblique; anal extending to the caudal, the pectoral to the ventral. Greenish above, silvery on the sides and below.

One specimen, 5 inches long, was obtained at Merifano on the Tana River.

10. *BARBUS TANENSIS*, sp. n. (Plate XI.)

D. 12. A. 7 or 8. L. lat. 25. L. transv. $\frac{4\frac{1}{2}}{4\frac{1}{2}}$.

The osseous dorsal ray is strong, not serrated, its stiff portion being rather shorter than the head. There are one and a half longitudinal series of scales between the lateral line and the root of the ventral fin. Body compressed, its greatest depth contained twice and three fourths in the total length (without caudal). Head rather small, one fifth of the total length, measured to the end of the middle caudal rays. Snout of moderate length, with the upper jaw overlapping the lower, and with four barbels, of which the posterior reaches to the angle of the præoperculum. The diameter of the eye is two ninths of the length of the head and two thirds of that of the snout. Origin of the dorsal fin opposite to the root of the ventral and nearly midway between the end of the snout and the root of the caudal. Caudal fin deeply

forked; pectoral extending to or nearly to the root of the ventral. Coloration uniform.

Numerous specimens were collected in the Thika-thika, in the Kibwezi River, below its reappearance, and in the Guaso el Narua. The largest specimens are fifteen inches long.

11. *BARBUS TAITENSIS*, sp. n.

D. 10. A. 8. L. lat. 31. L. transv. $\frac{5}{5}$.

The osseous dorsal ray is of moderate strength, finely serrated, and but little shorter than the head. There are two and a half longitudinal series of scales between the lateral line and the root of the ventral fin. Body compressed, its depth being equal to the length of the head and one fourth of the total length (without caudal). The diameter of the eye equals the length of the snout and is one fourth of the length of the head. The upper barbel is shorter than the lower, which is as long as the eye. Jaws of equal length. Interorbital space convex, wider than the eye. Dorsal fin about as high as the body, its origin being somewhat in advance of that of the ventral and equidistant from the end of the snout and from the root of the caudal. Fork of the caudal of moderate depth. Silvery, with a bluish band along the middle of the side, the band terminating in a small black spot on the root of the caudal fin.

I take this opportunity of describing this species here from two specimens which were collected at Teita by Mr. Wray, and of which the larger is only 3 inches long.

12. *BARBUS INTERMEDIUS*, Rüpp.

Previously known from Abyssinia. Adult specimens have the lower lip dilated into broad lobes, of which the median is divided from the lateral by a deep notch.

From the Rivers el Narua, Nyuki, and Kiroruma.

13. *ANGUILLA BENGALENSIS*, Gray.

From the Thika-thika, Athi, and Tana Rivers.

EXPLANATION OF THE PLATES.

PLATE VIII.

Bunocnemis modestus, nat. size. Fingers and toes enlarged.

PLATE IX.

Oreochromis niger.

PLATE X.

Fig. A. *Chromis spilurus*.

B. *Labeo gregorii*.

PLATE XI.

Barbus tanensis.



Günther, Albert C. L. G. 1894. "Report on the collection of reptiles and fishes made by Dr. J. W. Gregory during his expedition to Mount Kenia [sic]."
Proceedings of the Zoological Society of London 1894, 84–91.

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