

measurements between the skulls of the type-specimen of *R. damarensis* and the present subspecies :—

| | <i>R. damarensis</i> , ♀ (skull imperfect). | <i>R. d. variani</i> , ♂. |
|--|--|------------------------------|
| | mm. | mm. |
| Total length of skull | .. | 113 |
| Basal length | .. | 99 |
| Condyllo-basal length | .. | 105 |
| Greatest width | .. | 56 |
| Anterior edge of orbit to gnathion.. | 57 | 53 |
| Posterior " " " .. | 86 | 81 |
| Length of nasals | 23·5 | 19 |
| Width " " | 10·5 | 10 |
| Least width between orbits..... | 41 | 38 |
| Upper cheek-teeth | 38·5 | 39 |
| Length of palate in middle line | 55 | 52·5 |
| Greatest width of palate | 18·5 | 18·5 |
| Tip of nasals to gnathion | 32 | 32 |
| Anterior part of interparietal suture to gnathion | 89 | 84 |

In the skull of *R. damarensis variani* there is a very well-marked interparietal suture.

Mr. Varian has very kindly presented the above specimen, which includes skin, skull, and entire skeleton, to the British Museum of Natural History.

LIX.—*Descriptions of Five new Cichlid Fishes from Africa.*

By G. A. BOULENGER, F.R.S.

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Tilapia steindachneri.

Depth of body nearly equal to length of head, $2\frac{1}{2}$ to 3 times in total length. Head a little more than twice as long as broad; snout with convex upper profile, as long as broad or a little longer than broad, as long as postocular part of head; eye $3\frac{2}{3}$ (young) to $4\frac{1}{2}$ times in length of head, equal to interorbital width or to suborbital depth; mouth moderate, about $\frac{2}{3}$ width of head, extending to between nostril and eye; teeth small, in 3 series, 40 to 60 in outer row of upper jaw; 4 series of scales on the cheek, width of scaly part equal to or a little less than diameter of eye. Gill-rakers short, 12 to 14 on lower part of anterior arch. Dorsal XIV–XV 12–13; spines equal in length from the sixth or seventh, $\frac{1}{3}$ to not quite $\frac{1}{2}$ length of head; longest soft rays about $\frac{1}{2}$ length of

head. Anal III 8-9; third spine as long as and stronger than last dorsal. Pectoral $\frac{3}{4}$ to $\frac{4}{5}$ length of head, nearly reaching vertical of origin of anal. Ventral reaching vent or anal. Caudal truncate. Caudal peduncle as long as or slightly longer than deep. Scales cycloid, 31-33 $\frac{3\frac{1}{2}-4}{11}$; lateral lines $\frac{20-22}{12-16}$. Brownish above, silvery white beneath; soft dorsal and caudal with small red spots.

Total length 125 mm.

Several specimens from Dongwenna Swamp and Que River, Angola, obtained by Dr. W. J. Ansorge in 1907.

Closely allied to *T. ovalis*, Stdr.

Tilapia lucullæ.

Depth of body equal to length of head, 3 times in total length. Head a little more than twice as long as broad; snout with straight upper profile, as long as postocular part of head, longer than eye, which is 4 times in length of head, equals interorbital width, and a little exceeds least depth of præorbital; mouth rather large, $\frac{3}{4}$ width of head, extending nearly to below anterior border of eye; end of maxillary exposed; teeth in 3 series, outer moderately large, 46 in outer row of upper jaw; 3 or 4 series of scales on the cheek, width of scaly part a little less than diameter of eye. Gill-rakers short, 9 on lower part of anterior arch. Dorsal XVI 9-10; last spine longest, not quite $\frac{1}{2}$ length of head, longest soft rays $\frac{1}{2}$ to $\frac{2}{3}$. Anal III 8-9; third spine nearly as long as last dorsal. Pectoral $\frac{3}{4}$ length of head, not extending to vertical of origin of anal. Ventral reaching vent or origin of anal. Caudal rounded. Caudal peduncle $1\frac{1}{3}$ times as long as deep. Scales finely denticulate, 32-33 $\frac{3\frac{1}{2}}{11}$; lateral lines $\frac{20-22}{12-13}$. Brownish; dorsal and caudal with round blackish spots, the former with a dark brown longitudinal band in its upper portion; male with the mouth and ventrals blackish (dark blue in life), and a few large bright ocellar spots on the anal.

Total length 115 mm.

Three specimens from the Luculla River, Angola, collected by Dr. W. J. Ansorge in 1910.

Allied to *T. calliptera*, Gthr.

Paratilapia corbali.

Depth of body $2\frac{1}{4}$ to $2\frac{1}{3}$ times in total length, length of head $2\frac{3}{4}$ times. Head twice as long as broad, with steep, nearly straight upper profile; snout rounded, as long as

broad or a little broader than long, shorter than postocular part of head; eye as long as snout, $3\frac{1}{2}$ times in length of head, equal to interorbital width and exceeding præorbital depth; mouth extending to below anterior border of eye; teeth rather small, in 5 or 6 series, 50 to 56 in outer series of upper jaw; 4 series of scales on the cheek, width of scaly part equal to or a little less than diameter of eye. Gill-rakers short, the largest bifid, 9 on lower part of anterior arch. Dorsal XIV 11-12; spines equal from the eighth, a little less than $\frac{1}{2}$ length of head, longest soft rays $\frac{2}{3}$ to $\frac{3}{4}$ length of head. Anal III 8; third spine $\frac{1}{3}$ to $\frac{2}{5}$ length of head. Pectoral as long as or a little longer than head, extending to vertical of origin of anal. Ventral produced into a long filament, extending beyond origin of anal. Caudal truncate. Caudal peduncle much deeper than long. Scales cycloid, $29\frac{2\frac{1}{2}-3}{10}$; lateral lines $\frac{18-19}{11-12}$. Brownish, young with five indistinct darker cross-bars, and a large dark brown blotch below the last rays of the spinous dorsal; a black opercular spot; small light spots on the dorsal and caudal.

Total length 150 mm.

Two specimens from the Corbal River at Chitole, Portuguese Guinea, obtained by Dr. W. J. Ansorge in 1910.

Apparently nearly related to *P. dorsalis*, Pellegr.

Pelmatochromis multiocellatus.

Depth of body equal to length of head, which is $2\frac{4}{5}$ times in total length. Head $2\frac{1}{4}$ times as long as broad; snout as long as broad, with slightly convex upper profile, $1\frac{1}{3}$ times as long as eye, which is 4 times in length of head, equals interorbital width, and slightly exceeds præorbital depth; mouth rather large, extending to below anterior border of eye; 2 series of teeth, outer rather large, 50 in upper jaw; 4 series of scales on the cheek, width of scaly part equal to diameter of eye. Gill-rakers very short, 9 on lower part of anterior arch. Dorsal XVI 10; spines increasing in length to the last, which measures $\frac{2}{3}$ length of head; longest soft ray about $\frac{2}{3}$ length of head. Anal III 9; third spine stronger but a little shorter than last dorsal. Pectoral $\frac{2}{3}$ length of head, not reaching vertical of origin of anal. Ventral reaching vent. Caudal rounded. Caudal peduncle a little longer than deep. Scales strongly denticulate, $32\frac{3\frac{1}{2}}{11}$; lateral lines $\frac{21}{13}$. Brown above, whitish beneath; a blackish opercular spot; a blackish bar below anterior third of eye; dorsal and caudal fins with very numerous small ocellar spots forming single series between the rays; anal fin with a few large ocelli.

Total length 120 mm.

A single specimen from the Luculla River, Angola, obtained by Dr. W. J. Ansorge in 1910.

Closely allied to *P. darlingi*, Blgr.

Pelmatochromis annectens.

Depth of body $2\frac{3}{5}$ to $2\frac{3}{4}$ times in total length, length of head $2\frac{4}{5}$ times. Head twice as long as broad; snout rounded, with convex upper profile, broader than long, as long as eye, which is $3\frac{1}{2}$ times in length of head, equals interorbital width, and exceeds præorbital depth; mouth moderate, extending to between nostril and eye; teeth in 3 or 4 series, outer rather large, 50 to 66 in upper jaw; 3 or 4 series of scales on the cheek, width of scaly part less than diameter of eye. Gill-rakers short, 9 or 10 on lower part of anterior arch. Dorsal XV 9-10; spines gradually increasing in length to the last, which measures nearly $\frac{1}{2}$ length of head; median soft rays produced, as long as head. Anal III 7-8; third spine a little shorter than last dorsal. Pectoral $\frac{3}{4}$ length of head, not reaching vertical of origin of anal. Ventral reaching origin of anal or beyond. Caudal rounded. Caudal peduncle much deeper than long. Scales cycloid, 28-29 $\frac{2\frac{1}{2}}{10-11}$; lateral lines $\frac{18-19}{9-10}$. Dark brown, with four blackish vertical bars on the side; blackish spots may be present on the back, alternating with the bars; a black opercular spot; fins dark grey, posterior part of dorsal and anal, and greater part of caudal with numerous small dark and light spots.

Total length 85 mm.

Two specimens from the Lower Niger, presented by Mr. J. Paul Arnold (*cf.* his article in *Wochenschr. Aq.-Terr.* 1913, no. 37, p. 661, fig.).

Connects *P. arnoldi*, Blgr., with *P. ansorgii*, Blgr.

LX.—*Undescribed Species of Cicadidæ.*

By W. L. DISTANT.

THE principal material for the present short paper is a small collection of Cicadidæ made by Mr. Horace Brown at Cue, N.W. Australia, and forwarded to me by my friend Mr. Walter W. Froggatt of the Entomological Branch of the Department of Agriculture, Sydney, N.S.W. The types of these new species are all in the British Museum.

Pycna nigeriana, sp. n.

Head, pronotum, and mesonotum ochraceous, lateral and



Boulenger, George Albert. 1913. "Descriptions of five new cichlid fishes from Africa." *The Annals and magazine of natural history; zoology, botany, and geology* 12, 482–485.

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