

## NOTES ON A SMALL COLLECTION OF AMPHIBIA FROM SUMBA.

by

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The present collection was brought back from Sumba by Dr. K. W. DAMMERMAN in 1925. Through different circumstances Prof. VAN KAMPEN who received the collection for identification could not finish this work and permitted the junior author to do this.—

An annotated list of the species is given. One species and a variety are recorded for the first time from this island.

### HYLIDAE.

#### **Hyla everetti** BLGR.

BOULENGER, Ann. Mag. Nat. Hist. (6), 19, 1897, p. 509; VAN KAMPEN, Amph. Indo-Austr. Arch., 1923, p. 51.

Three specimens were collected at Laora, 100 meters above sea-level, April 1925.

### BREVICIPITIDAE, Brevicipitinae.

#### **Kaloula baleata** (S. MÜLL.)

*Bombinator baleatus*, S. MÜLLER, Verh. Bat. Gen. 16, 1836, p. 96.

*Callula baleata*, BOULENGER, Cat. Batr. Sal. Brit. Mus. 1882, p. 169, figs of hand and foot.

*Kaloula baleata*, VAN KAMPEN, Amph. Indo-Austr. Arch., 1923, p. 148, fig. 21. One specimen from Laora, April 1925.

### RANIDAE.

#### **Rana cancrivora verruculosa** ROUX.

*Rana tigrina* var. *verruculosa*, J. ROUX, Zool. Jahrb. Syst. 30, 1911, p. 504.

*Rana verruculosa*, BOULENGER, Rec. Ind. Mus. 20, 1920, p. 16; VAN KAMPEN, Amph. Indo-Austr. Arch. 1923, p. 172; M. A. SMITH, Proc. Zool. Soc. London, 1927, p. 207.

*Rana cancrivora verruculosa*, DUNN, Amer. Mus. Nov. 315, 1928, p. 5.

*Rana verruculosa*, MERTENS, Senckenbergiana 10, 1928, p. 230.

*Rana cancrivora verruculosa*, MERTENS, Abh. Senckenb. natf. Ges. 42, 1930, p. 213-214.

During the last years this frog has been the subject of much discussion. The different characters on which *R. verruculosa* was separated from *R. cancrivora* seem to be only of subspecific value. At the moment it is best to follow DUNN (l.c.) and take *verruculosa* as a variety of *Rana cancrivora*.

Seven specimens from Laora, April 1925.

In one specimen a vertebral band of the skin is bordered by broken-up ridges which are darkly coloured. This gives the impression of a light vertebral band. It is not white, however, as in specimens of *cancrivora* s. str. (in alcohol).

One specimen and seven juv. from Kambera, March 1925.

Two larvae from Kambera were referred to *Rana verruculosa* by the senior author. They agree very well with the description of larvae of *Rana c. cancrivora* (VAN KAMPEN l.c. p. 171).

### **Rana papua** LESS.

*Rana papua*, LESSON, Voyage Coquille, Zool. II, 1, 1830, p. 59, pl. 7, fig. 1.

*Rana papua*, BOULENGER (part.), Cat. Batr. Sal. Brit. Mus. 1882, p. 64.

*Rana florensis*, BOULENGER, Ann. Mag. Nat. Hist. (6), 19, 1897, p. 508.

*Rana florensis*, *varians* and *papua*, BOULENGER, Rec. Ind. Mus. 20, 1920, p. 160, 165, 188.

*Rana papua*, VAN KAMPEN, Amph. Indo-Austr. Arch. 1923, p. 201.

*Rana papua florensis*, MERTENS, Senckenbergiana 9, p. 242.

*Rana florensis*, DUNN, Amer. Mus. Nov. 315, 1928, p. 6.

*Rana papua florensis*, MERTENS, Abh. Senckenb. natf. Ges. 42, 1930, p. 225, pl. 5, fig. 5.

Ten specimens from Kananggar, 700 meters above sea-level, May 1925.

Eight specimens from Mao Marroe, 450 meters above sea-level, May 1925.

This species was not yet recorded from the island. We can not follow MERTENS who describes specimens from the Lesser Sunda-isles as *R. papua florensis*. The difference between specimens from these islands and from New Guinea and Moluccas is only very slight. The tibiotarsal articulation reaches the nostril or beyond the tip of the snout. The characters given by MERTENS (1930) to distinguish the sexes, proved to be quite sufficient. Two specimens were found to be females (eggs) the others were male. All the males had the flat humeral gland and the tubercles on the back. As follows from the table with the measurement the length of the fore-limb is contained 1.6—1.5 × in the length of head and body in the two females. In the males the total length is 1.6—1.3 × the arm-length.

Of the two females one is darkly coloured, the other one light grey above. Two males are also darkly coloured above.

Two larvae were captured at Mao-Marroe. The largest measuring 56 millim. the second one 38 millim. total length. The distance between the eyes is equal to that between the nostrils and to the width of the mouth. In the first specimen the body is one time and a half as long as broad; the tail is four and half times as long as high and twice the body length.

The series of labial-teeth are  $\frac{2}{1} \frac{2}{2}$ .

MEASUREMENTS OF *RANA PAPUA* LESS.

Locality	Kananggar, 700 m above sea-level, V - 1925.										Mao Marroe, 450 m above sea-level, V - 1925.							
	♀	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
Snout to vent	70.-	66.-	51.5	44.-	43.-	42.5	42.-	42.-	41.5	39.-	41.5	41.5	41.5	41.-	40.-	39.-	39.-	38.-
Length of head	24.-	23.5	18.-	16.-	16.5	16.-	16.-	15.5	16.-	14.5	16.-	16.-	15.5	15.-	15.-	16.-	14.5	15.-
Width of head	24.-	24.-	17.5	14.5	15.-	15.5	15.5	13.-	14.5	13.5	15.-	15.-	15.5	15.-	14.5	15.-	13.5	15.-
Snout	9.5	9.5	7.5	6.5	6.-	6.-	6.5	6.-	6.5	5.-	6.5	6.5	7.-	6.-	6.-	6.-	6.-	6.-
Eye	9.5	9.-	7.-	6.5	6.-	6.-	6.5	7.-	6.5	5.5	6.-	6.5	6.-	6.-	6.-	6.-	6.-	6.-
Interorb. width	6.-	6.-	5.-	5.-	4.5	5.-	4.5	5.-	4.5	4.-	4.5	5.-	4.5	5.-	4.-	4.5	5.-	5.-
Tympanum	6.-	6.-	5.-	5.-	4.5	5.-	4.5	5.-	4.5	4.-	4.5	5.-	5.-	5.-	4.-	4.5	5.-	5.-
Fore limb	45.-	43.-	32.5	29.-	30.-	31.5	30.-	31.-	29.5	25.-	30.-	29.5	32.-	29.-	30.-	29.-	30.-	29.-
First finger	10.5	11.5	8.-	7.-	6.5	7.-	6.5	7.-	7.-	7.-	6.5	6.5	6.5	6.5	6.5	6.5	7.-	7.-
Second finger	8.5	9.5	7.-	5.5	5.-	6.-	5.5	5.5	6.-	6.-	5.5	5.-	5.-	5.-	5.-	5.-	5.5	6.-
Third finger	14.-	14.-	10.5	9.-	7.-	8.-	8.-	9.-	8.-	8.-	8.5	8.-	8.5	8.-	8.-	7.-	7.-	8.5
Fourth finger	10.-	9.-	6.5	5.5	5.5	6.-	6.-	5.5	6.5	6.-	5.5	5.5	6.5	5.-	5.-	5.5	5.5	6.5
Hind limb	121.5	118.-	91.-	76.-	77.5	78.5	76.5	71.-	77.5	70.5	71.-	74.-	75.5	68.-	68.-	71.5	69.-	68.-
Tibia	41.-	39.-	29.5	25.-	25.-	25.5	25.-	25.-	24.-	22.-	24.-	23.5	25.-	22.-	21.5	23.-	22.5	24.5
Foot	35.-	33.-	26.-	21.-	22.-	21.5	23.-	23.-	20.-	20.5	20.-	20.-	22.-	18.-	18.-	21.5	19.-	19.-
Third toe	16.-	18.-	16.-	12.-	12.-	12.-	11.5	13.-	12.-	11.5	12.5	12.-	12.-	10.-	10.5	11.-	11.5	10.5
Fourth toe	28.-	26.-	22.5	16.5	18.-	18.5	18.-	20.-	17.5	17.-	16.5	18.-	18.-	15.-	16.-	17.-	18.-	15.-
Fifth toe	20.-	19.5	18.-	12.-	12.5	14.-	13.5	15.-	13.-	13.-	12.-	12.-	12.-	11.-	11.-	12.5	12.-	11.5

In the second specimen the body is nearly twice as long as broad; the tail is one time and a half the body length and four times as long as high. The series of labial teeth are as in the first specimen, the inner series of the lower lip is hardly interrupted.

These larvae agree very well with the description given by VAN KAMPEN (l.c. p. 202). According to MERTENS (1930) the series of labial teeth seem to vary in number to a great extent so that the difference of the larvae as described by DUNN and himself cannot be of specific value.

**Rhacophorus leucomystax** (KUHLE).

*Hyla leucomystax* (KUHLE) GRAVENHORST, *Deliciae Mus. Zool. Vratislav*, Fasc. 1, Lipsiae, 1829, p. 26.

*Rhacophorus maculatus*, BOULENGER (part.), *Cat. Batr. Sal. Brit. Mus.* 1882, p. 83.

*Rhacophorus leucomystax*, VAN KAMPEN, *Amph. Indo-Austr. Arch.* 1923, p. 246.

Two specimens from Kanangar, May 1925.

Five specimens from Laora, April 1925.

**Rhacophorus leucomystax** var. **sexvirgata** (REINW.).

*Hyla sexvirgata* (REINW.) GRAVENHORST, *Deliciae Mus. Zool. Vratislav*, Fasc. 1, Lipsiae 1829, p. 28.

*Rhacophorus maculatus* var. *quadrilineatus*, BOULENGER, *Cat. Batr. Sal. Brit. Mus.* 1882, p. 84.

*Rhacophorus leucomystax* var. *sexvirgata*, VAN KAMPEN, *Amph. Indo-Austr. Arch.* 1923, p. 249, fig. 27.

Three specimens from Laora, April 1925.

This colour variation was not yet recorded from the island.

Leiden and Amsterdam, November 1930.

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