

NOTE VII.

CHRYSOPTERON BARTELSII,
NOVUM GENUS ET NOVA SPECIES, FROM JAVA

BY

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Mr. Bartels forwarded to me some small Mammals from Java, for identification. It appears that a Bat belongs to a hitherto not recognized species.

This Bat, found at the top (10,000 feet) of the Pange-rango-mountain, March 22. 1908, strongly reminds by its bright colours the splendid *Kerivoula Weberi* from Celebes, described by me in „Weber's Zoologische Ergebnisse“, Band I, p. 129, and figured on Tab. XI (1890—91). When I described the latter, I had not extracted the skull of this type-specimen, and so the middle lower incisors made the impression of having each three cusps, like many other *Kerivoula*-specimens; these incisors are so imbricated that, as a matter of fact, only three cusps are to be seen when the skull is in the flesh. Having, however, now extracted the skull for comparison with Bartels' bat, I see not only that the middle lower incisors have *four* cusps each, but that moreover the second ones also have *four* cusps; further that the second upper premolar is very small and invisible from without, and that the skull is flat, not inflated. The skull of Bartels' bat presents the very characters. As they call in mind some *Kerivouline*-species by external appearance as well as by the four-cusped middle lower incisors, at the same time, however, they have some characters in common with true *Vespertilionidae*, especially with *Myotis*¹⁾; by the flatness of the skull and the smallness

1) Miller's „Families and genera of bats“, 1907, p. 201.

of the second upper premolar, it is evident that Weber's and Bartels' bat cannot be brought under one of the named or other existing genera. I propose to create for their reception a new genus, viz.:

Chrysopteron, n. g.

Dental formula: $i. \frac{2-2}{3-3}, c. \frac{1-1}{1-1}, pm. \frac{3-3}{3-3}, m. \frac{3-3}{3-3} = 38.$

Braincase normal; second upper premolar very small and not to be seen from without; middle and second lower incisors with four cusps.

Type of the genus is *Weberi* Jentink.

Bartels' bat being distinct from *Weberi*, I describe it as:

Chrysopteron Bartelsii, n. sp.

Our new species is larger in all dimensions than *Weberi*; the orange color is broader along the fingers, meanwhile the black of the membranes is of a deeper tint, and the ears are more broadly bordered with black.

Tragus and ear like in *Weberi*; wings closer to the base of the toes than in that species; projecting tip of tail shorter than in *Weberi*; in the latter the calcaneum ends free — cf. Tab. XI in Weber's „Ergebnisse” — meanwhile in *Bartelsii* there is no free projection of calcaneum; like in *Weberi* so in *Bartelsii* the membranes and extremities are almost quite naked.

Dentition almost as in *Weberi*; middle upper incisors in both species with a well-developed internal rather sharp cusp, in *Weberi* moreover the other upper incisors too have such an internal well-developed cusp, not to be observed in *Bartelsii*; canines strong, especially the upper ones; like in *Weberi* the small second upper premolar is not to be seen from without, but internal, and very small compared with the so well developed anterior upper premolar; anterior and second lower premolars of about the same size as in *Weberi*, the anterior one in *Bartelsii*, however, is

nearly of double the size in vertical extent if compared with the second lower premolar. Lower incisors very much crowded and so imbricated that it is very difficult to count from without the cusps on them; after having removed, for better comparison, the skulls from *Bartelsii* and *Weberi*, I see that what seemed to be, seen from without when the *Weberi*-specimen was in the flesh, *three* cusps in reality is *four* cusps, and that not only the middle lower incisors in both species have *four* cusps, but also the second ones, meanwhile the third pair (placed near the canines) present two anterior cusps beside a smaller cusp more inwards (not to be seen from without).

Some measurements of the type-specimens of *Bartelsii* and *Weberi*, in millimeters:

	<i>Bartelsii</i> ♀.	<i>Weberi</i> ♂.
tail.	43	42.5
ear.	20	16.5
tragus.	10	9
forearm	53	49 ¹⁾
second finger, metacarp	51	46.5
" " 1 st phalanx	5	3.5
third finger, metacarp	53	47.5
" " 1 st phalanx	22	20
" " 2 nd phalanx	15	14
" " 3 rd phalanx	5.5	5.5
fourth finger, metacarp	50	43
" " 1 st phalanx	14	13.5
" " 2 nd phalanx	14	11
fifth finger, metacarp.	49	44
" " 1 st phalanx.	13	12
" " 2 nd phalanx.	10	9.5
tibia	27	25
foot	12	12
calcaneum	16	14

1) not 59 mm. as in Weber's „Ergobnisse”.

Hodgson described in J. A. S. B. IV, 1835, p. 700, a bat from Nipal, later on figured in P. Z. S. L. 1858, Tab. LX, by Tomes; this bat, *Vespertilio formosus*, presents the same beautiful mode of coloration as *Weberi* and *Bartelsii*; it very likely is a species of our new genus *Chrysopteron*; as however the teeth of *formosus* have not sufficiently been studied till now, it only is with a hypothetical degree of certainty that I suggest it to be a *Chrysopteron*.

In the collection of our Museum there is a specimen labelled *Vespertilio formosus*, with Java als locality, without any further indication; the animal has been stuffed and is in a very bad state of conservation, being bleached out; the imperfect skull certainly indicates that the bat is not a *Vespertilio*, but a *Kerivoula*, perhaps a *K. papillosa*. I never saw a true *formosus*-specimen.

Remark. By the imbricated and crowded position of the lower incisors it only is after a long and careful study, that, under a certain light, the number of the cusps can be stated; this perhaps may be the reason why generally so very few mention has been made of the mentioned teeth in *Kerivoula*-species; at best the authors record the number of cusps of the two central lower incisors; Dobson (Catalogue, 1878) described the lower incisors of the *Kerivoula*-species as follows:

picta: lower incisors distinctly *trifid*,

brunnea: outer lower incisors on each side have a blunt cusp, rising considerably above the others,

africana: no history,

Hardwickii: no history,

papillosa: similar to *Hardwickii*,

pellucida: the two central lower incisors with *four* distinct cusps each; those on each side with *three*, whilst those next canines have a small cusp on their inner sides only,

Jagorii: no history,

papuensis: all the lower incisors *trifid*,

aerosa: no history,

lanosa: no history.

Later on Mr. Oldfield Thomas has described some new *Kerivoula*-species; as to the lower incisors he remarked:

Smithii: first and second lower incisors trilobate, outer ones unicuspidate,

javana: the teeth are quite similar to those of *K. papuensis* (therefore lower incisors *trilobate*, see above),

Harrisonii: no history,

pusilla: outer lower incisors *tricuspid* and longer (horizontally) than either of the two middle ones,

Whiteheadi: apparently as in *Hardwickii*.

Finally Mr. Miller described a *Kerivoula*-species, viz.:

minuta: two lower incisors *trifid* and each considerably smaller than the *unicuspid* outer incisor.

In the Proc. Biol. Soc. Washington, 1905, p. 229, Mr. Miller described a new bat from Sumatra, the type-species of a new genus, allied to *Kerivoula*, viz. *Phoniscus atrox*; *Phoniscus* and *Kerivoula* are the two genera which represent the subfamily *Kerivoulinae* (cf. Miller, the families and genera of bats, 1907, p. 232), which he distinguishes as follows:

Kerivoula: upper canine normal; middle lower incisor with *three* cusps,

Phoniscus: upper canine with shaft elongated and laterally compressed; middle lower incisor with *four* cusps.

To the true *Kerivoula*-genus, perhaps constantly with *three*-cuspidate anterior and middle lower incisors, apparently belong: *Hardwickii*, *picta*, *papillosa*, *papuensis*, *Jagori*, *Smithii*, *javana*, *Whiteheadi*, *pusilla* and *minuta*; as to *pellucida* however, with *four*-cusped anterior and *three*-cusped middle lower incisors, I only can suggest that it may belong again to another genus, a question however better to settle by the study of the type-specimen in the Zool. Soc. Coll. (Dobson, Catalogue, 1878, p. 338); perhaps it may turn out to be a *Phoniscus*? We know nothing of the lower incisors of *brunnea*, *africana*, *aerosa*, *lanosa* and *Harrisonii*.