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Published from 1950 to 2004, the short papers of the *Postilla* series reported on original research by the Yale Peabody Museum of Natural History's curators, staff, and research associates, and their colleagues, in the natural science disciplines represented by the collections of the Museum's curatorial divisions.

The *Postilla* series, which ceased publication with Number 232 (2004), was incorporated into the journal *Bulletin of the Peabody Museum of Natural History*, available from BioOne Complete at <https://bioone.org/>.

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YALE PEABODY MUSEUM

OF NATURAL HISTORY

Number 34

March 7, 1958

New Haven, Conn.

NOTES ON AN ADDITIONAL EXAMPLE
OF THE FRUIT BAT,

SCOTONYCTERIS OPHIODON POHLE

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In the Peabody Museum collection of bats there is a single specimen of a fruit bat which appears to be closely allied with *Scotonycteris ophiodon* Pohle (1943) and *Scotonycteris ophiodon cansdalei* Hayman (1945), both of which are known only from the type specimens.

Scotonycteris ophiodon Pohle. Skin and part of skull, Y.P.M. #9442, collected in Liberia, 1928(?), by G. P. Cooper.

Most of the cranial portions of the skull are missing, including the posterior and ventral borders of the orbits and the zygomata. This specimen is similar to *Scotonycteris ophiodon* Pohle and to *S. o. cansdalei* Hayman in general size and in external and dental characters. Like *cansdalei* it has conspicuous white patches at the posterior angles of the eye and extremely faint and inconspicuous white tufts at the anterior base of the ears (both spots lacking in *ophiodon*). The white border of the upper lips is conspicuous for only two-thirds of the way forward towards the nostrils but can be traced faintly

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all the way to the nostrils. In *ophiodon* the white border is said to include the nostrils; in *cansdalei* it reaches two-thirds of the way to the nostrils. These two forms have otherwise been distinguished by cranial features which can not be assessed in this specimen. Neither author has mentioned the conspicuous yellowness of the skin ventral and anterior to the orbit and the small bright yellow patches of fur ventral to the postorbital patches of white seen in this specimen. The skin of the rostrum is faintly yellow; the skin under the jaw and extending back to the breast is also yellow, darker anteriorly and fading to a faint yellow posteriorly. Otherwise Hayman's description of the fur and color of *cansdalei* agrees in detail with the present specimen.

The measurements of the three specimens are compared in Table 1. The present specimen differs markedly from the other two in total length but this measurement is unreliable in prepared specimens. The hindfoot is somewhat longer as are all of the metacarpals while the forearm and pollex are in the same range. The palate is similar in total length but the post dental palate is slightly longer. The breadth m^1 — m^1 is greater but the breadth c — c and the interorbital constriction are only slightly greater. The mandible is distinctly longer and is also higher at the coronoid. The teeth are all but identical in size and form with those of the previously described specimens. Thus this bat differs most interestingly from *cansdalei* in having increased yellowness of the skin of the head with the appearance of yellow tufts of fur posterior to the eyes. Furthermore it differs in having a longer hind foot, longer metacarpals, and a longer and higher mandible.

REMARKS

In 1943, Pohle described *S. ophiodon* from Bipindi, Cameroons, as the second species of the genus, previously known only from the genotype, *S. zenkeri*, whose range included the Cameroons and Fernando Po. *S. ophiodon* was characterized by its much greater size and by striking dental peculiarities, of which the most important are the secondary cusps on the inner edges of upper and lower canines and the heightening of the canines and

cheekteeth; the latter also being provided with prominent inner cusps. *S. o. ophiodon* also lacks the white spot behind the eye found in *zenkeri* but agrees in most other respects in markings and color.

Pohle considered that some of the characters of *ophiodon*, particularly those of the cheekteeth, showed affinity to *Casinycteris argynnis*, whose close external similarity to *Scotonycteris* has been discussed by Andersen (1912). Pohle felt that the palatal characteristics of *Casinycteris* by which the genus is principally defined were unstable and proposed to relegate the genus to synonymy with *Scotonycteris*. Hayman (1945), however, has convincingly defended the independent position of the genus *Casinycteris*. Thus the three species belonging to two genera—*Scotonycteris zenkeri*, *S. ophiodon*, and *Casinycteris argynnis*—present an interesting group. The heightening of the inner cusps of the cheekteeth of *ophiodon* is a feature very closely approaching the dentition of *Casinycteris argynnis*, rather than *S. zenkeri*. The normal palate is shared by the two species of *Scotonycteris* but not by *Casinycteris*. The secondary cusps of the canines of *ophiodon* are found neither in *zenkeri* nor in *Casinycteris*. Externally these three are very similar, being distinguished only by details (which may well be variable) of the facial markings. The white ear tuft which is characteristic of all other epomophorine bats disappears in *zenkeri* and *ophiodon* but reappears in *cansdalei*, in the present specimen, and in *Casinycteris*; the white spot behind the eye is not found in *ophiodon*. Yellow postorbital spots appear only in the present specimen.

It appears that these three species form a natural group as judged by external appearance, dentition, cranial characteristics, wing membrane insertion, and many other considerations. The material at present is too sparse to attempt a clear analysis of the larger group when so few specimens represent most of the forms. It appears that its aberrant palate justifies retaining the genus *Casinycteris*. I am not prepared any more than was Hayman to erect a new genus for *ophiodon* because of its dentition. I feel that its clear dental separation from *zenkeri* should be emphasized by the erection of a new subgenus.

Hayman chose to express the position of *cansdalei* as a subspecies of *ophiodon* with the comment that the differences might be of specific value. I am reluctant to name a new form from the present specimen in view of its incomplete skull and of its being a single specimen to be compared with only single specimens of both *ophiodon* and *cansdalei*. The differences, nevertheless, between the Peabody Museum specimen and the types of *ophiodon* and *cansdalei* appear to be slightly greater than the differences between the latter two. For the time, I suggest considering this specimen to be a variant of *Scotonycteris ophiodon* Pohle. Its discovery in Liberia increases the known range of this fruit bat to include Liberia, Gold Coast, and the Cameroons.

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TABLE 1

All measurements are in millimeters. Where a blank appears, the portion concerned could not be measured. The measurements of *ophiodon* and *cansdalei* are taken from Hayman (1945).

	<i>Scotonycteris o. ophiodon</i>	<i>S. o. cansdalei</i>	Y. P. M. #9442
Head and Body	105	115	143
Tail	1	...	palpable
Hindfoot	14	15	19
Ear	20.5	22	...
Forearm	75	76	73.8
Pollex	36.5	31	35.2
2nd metacarpal	39	35	43.2
3rd metacarpal	54	52	58.5
4th metacarpal	50	49	55.5
5th metacarpal	51	50	54.9
Skull, total length	36	36	...
Palation to inc. foramina	17.6	17	17.7
Palation to basion	12.2	13	...
Post-dental palate	6.4	6	7.0
Rostrum	9.2	10	9.6
Braincase at zygomatic root	16	15	...
Zygomatic breadth	21	22.5	...
Breadth m ¹ —m ¹	12.6	12	13.4
Breadth c—c	6.7	7.5	7.8
Breadth of postorbital processes	11.2	14	...
Interorbital constriction	6.4	7	7.2
Diameter of orbit	9	9	...
Length of mandible	26.5	26.5	29.5
Height at coronoid	11.2	12	14
Upper tooth row c—m ³	11.9	12	11.9
Height c ¹	6.1	5.5	6.0
Height p ³	3.8	4	4.1
Height p ⁴	3.1	3	2.8
Height m ¹	2.3	2	2.3
Height c ₁	4.1	4	4.1
Height p ₃	4.1	4	3.9
Height p ₄	3	3	3.2
Height m ₁	2.4	2.1	2.2
Height m ₂	1.1	1.2	1.3