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Observations, Discussions and Updates

Recent changes in African Bat Taxonomy (2015 – 2017)

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†NECROMANTIDAE Sigé, 2011

†*Necromantis* Weithofer, 1887

†*Necromantis fragmentum* Ravel, in Ravel, Adaci, Bensalah, Charruault, Essid, AMmar, Marzougui, Mahboubi, Mebrouk, Merzeraud, Vianey-Liaud, Tabuce and Marivaux, 2016

Locality and Horizon: Chambi (CBI) loci 1, 2 and 3, late lower Eocene - middle Eocene, Djebel Chambi, situated in the Kasserine region, Tunisia.

Etymology: From the Latin 'fragmentum', meaning fragment or debris, referring to the fragmentary character of the material attributed to this taxon.

†AEGYPTONYCTERIDAE Simmons, Seiffert and Gunnell, 2016

The suite of traits seen in *Aegyptonycteris knightae* is unique and justifies recognition of this taxon as a distinct chiropteran family, Aegyptonycteridae (type genus and species = *Aegyptonycteris knightae*).

†*Aegyptonycteris* Simmons, Seiffert and Gunnell, 2016

†*Aegyptonycteris knightae* Simmons, Seiffert and Gunnell, 2016

Locality and Horizon: Fayum Quarry BQ-2, 23 meter level, Birket Qarun Formation, Fayum Depression, Western Desert, Egypt (Fig. 1-2). Age: Late Eocene, Priabonian, ~37 Ma.

Etymology: From Aegyptus, Latinized Greek for 'Egypt', and nycteris, Greek for 'bat'.

The genus name refers to the country in which this new taxon was discovered. The specific epithet is given in honour of Mary Knight, Managing Editor of the American Museum of Natural History Scientific Publications, in recognition of the enormous contributions she has made to dissemination of the results of scientific research over the years, as well as her lifelong devotion to the people and culture of Egypt.

Eidolinae Almeida, Giannini and Simmons, 2016

This subfamily was created by ALMEIDA *et al.* (2016: 84) to distinguish monophyletic groups within the Pteropodidae.

Currently recognized genera of Eidolinae: *Eidolon* Rafinesque, 1815.

Pteropodinae Gray 1821

Subfamily arrangement based on ALMEIDA *et al.* (2016: 83).

Currently recognized genera of Pteropodinae: *Acerodon* Jourdan, 1837, *Macroglossus* F. Cuvier, 1824, *Melonycteris* Dobson, 1877, *Neopteryx* Hayman, 1946, *Notopteris* Gray, 1859, *Pteralopex* Thomas, 1888, *Pteropus* Brisson, 1762, *Styloctenium* Matschie, 1899, *Syconycteris* Matschie, 1899.

Rousettinae Andersen, 1912

Subfamily arrangement based on ALMEIDA *et al*. (2016: 83).

Currently recognized tribes and genera of Rousettinae: Rousettini (*Rousettus* Gray, 1821), Eonycterini (*Eonycteris* Dobson, 1873), Scotonycterini (*Casinycteris* Thomas, 1910, *Scotonycteris* Matschie, 1894), Epomophorini (*Epomophorus* Bennett, 1836, *Epomops* Gray, 1870, *Hypsignathus* H. Allen, 1861, *Micropteropus* Matschie, 1899, *Nanonycteris* Matschie, 1899), Stenonycterini (*Stenonycteris* Gray, 1870), Myonycterini (*Lissonycteris* K. Andersen, 1912, *Megaloglossus* Pagenstecher, 1885, *Myonycteris* Matschie, 1899),

Plerotini (*Plerotes* K. Andersen, 1910).

***Epomophorus dobsonii* Bocage, 1889**

The phylogenetic analyses by ALMEIDA *et al.* (2016: 83) suggest that *dobsonii* is closely related to *Epomophorus wahlbergi* and they transferred the species from the genus *Epomops* to *Epomophorus*.

HIPPOSIDERIDAE

†*Palaeophyllophora* Revilliod, 1917

†*Palaeophyllophora tunisiensis* Ravel in Ravel, Adaci, Bensalah, Charruault, Essid, AMmar, Marzougui, Mahboubi, Mebrouk, Merzeraud, Vianey-Liaud, Tabuce and Marivaux, 2016

Locality and Horizon: Chambi (CBI) loci 1 and 2, late lower Eocene - middle Eocene, Djebel Chambi, situated in the Kasserine region, Tunisia.

Etymology: The species name refers to the country of origin: Tunisia.

†*Pseudorhinolophus* Schlosser, 1887

Described as a subgenus of *Hipposideros*.

†*Hipposideros* (*Pseudorhinolophus*) *africanum* Ravel in Ravel, Adaci, Bensalah, Charruault, Essid, AMmar, Marzougui, Mahboubi, Mebrouk, Merzeraud, Vianey-Liaud, Tabuce and Marivaux, 2016

Locality and Horizon: Chambi (CBI) loci 1, 2 and 3, late lower Eocene - middle Eocene, Djebel Chambi, situated in the Kasserine region, Tunisia.

Etymology: The species name refers to the continent Africa and underlines the geographic originality of the of species which belongs to a genus that is otherwise only found in Europe.

***Hipposideros cryptovalorona* Goodman, Schoeman, Rakotoarivelo and Willows-Munro, 2016**

Madagascar cryptic leaf-nosed bat (Eng.). La Phyllorhine cryptique de Madagascar (Fr.).

Analysing the cyt *b* sequences of 148 Madagascan *H. commersoni* s.l. specimens, GOODMAN *et al.* (2016: 428) found three well-supported monophyletic clades: A, B, and C. Clades B and C form a monophyletic lineage, which they were able to refer to *H. commersoni* s.s. Clade A showed a 9 to 11 % sequence variation with *H. commersoni* s.s., enough to warrant a separate species status. This new species is known from two adult females only.

Locality: Madagascar, Province de Fianarantsoa, Parc Nation- al de l'Isalo, along Sahanafa River, near foot of Bevato, 28 km south-east of Berenty-Betsileo, 22°19.0′S, 45°17.6′E, 550 m a.s.l.

Etymology: The name *cryptovalorona* is derived from the Greek 'kryptos', meaning hidden or concealed, and from the Sakalava dialect of Malagasy 'valorona', which is the local vernacular name of *Hipposideros* and refers to its distinct nasal structure, and can be translated as 'eight nose', referring to the complicated and multiple layers of the nose structure.

EMBALLONURIDAE

†*Vespertiliavus* Schlosser, 1887

†*Vespertiliavus kasserinensis* Ravel in Ravel, Adaci, Bensalah, Charruault, Essid, AMmar, Marzougui, Mahboubi, Mebrouk, Merzeraud, Vianey-Liaud, Tabuce and Marivaux, 2016

Locality and Horizon: Chambi (CBI) loci 1, 2 and 3, late lower Eocene - middle Eocene, Djebel Chambi, situated in the Kasserine region, Tunisia.

Etymology: The species name refers to the city of Kasserine, which is situated at the foot of the Djebel Chambi.

†*Vespertiliavus aenigma* Ravel in Ravel, Adaci, Bensalah, Charruault, Essid, AMmar, Marzougui, Mahboubi, Mebrouk, Merzeraud, Vianey-Liaud, Tabuce and Marivaux, 2016

Locality and Horizon: Chambi (CBI) loci 1, 2 and 3, late lower Eocene - middle Eocene, Djebel Chambi, situated in the Kasserine region, Tunisia.

Etymology: From the Latin 'aenigma' meaning riddle or puzzle and referring to the originality of the morphological characters of the specimens and the difficult systematics.

†*Pseudovespertiliavus* Ravel in Ravel, Adaci, Bensalah, Charruault, Essid, AMmar, Marzougui, Mahboubi, Mebrouk, Merzeraud, Vianey-Liaud, Tabuce and Marivaux, 2016

Etyomology: The generic name refers to the numerous morphological similarities with the genus *Vespertiliavus*.

†*Pseudovespertiliavus parva* Ravel in Ravel, Adaci, Bensalah, Charruault, Essid, AMmar, Marzougui, Mahboubi, Mebrouk, Merzeraud, Vianey-Liaud, Tabuce and Marivaux, 2016

Locality and Horizon: Levels HGL50 and HGL50' of the Glib Zegdou, late lower Eocene - middle Eocene, situated in the Gour Lazib region (Sahara, Hammada du Dra), Algeria.

Etymology: From the Latin 'parva' meaning small, referring to the small size of this bat species.

NYCTERIDAE

†*Khoufechia* Ravel in Ravel, Adaci, Bensalah, Charruault, Essid, AMmar, Marzougui, Mahboubi, Mebrouk, Merzeraud, Vianey-Liaud, Tabuce and Marivaux, 2016

Etymology: The generic name refers to the arab word 'Khoufèche' for bat.

†*Khoufechia gunnelli* Ravel in Ravel, Adaci, Bensalah, Charruault, Essid, AMmar, Marzougui, Mahboubi, Mebrouk, Merzeraud, Vianey-Liaud, Tabuce and Marivaux, 2016

Locality and Horizon: Chambi (CBI) loci 1, 2 and 3, late lower Eocene - middle Eocene, Djebel Chambi, situated in the Kasserine region, Tunisia.

Etymology: In honour of Gregg Gunnell for his numerous contribution to the study of paleogenic bats.

VESPERTILIONOIDEA

Family indeterminate

†*Drakonycteris* Ravel in Ravel, Adaci, Bensalah, Charruault, Essid, AMmar, Marzougui, Mahboubi, Mebrouk, Merzeraud, Vianey-Liaud, Tabuce and Marivaux, 2016

Etymology: The generic name is a combination of the Greek words 'drakon' (δράκων) and 'nycteris' (Νυχτερίδες), meaning dragon and bat respectively. The name of the genus is an allusion to the general context that emerges from the discovery of this fossil bat on the hillside of the Glib Zegdou. In addition, it highlights the robust but original morphology of the dental equipment attributed to it.

†*Drakonycteris glibzegdouensis* Ravel in Ravel, Adaci, Bensalah, Charruault, Essid, AMmar, Marzougui, Mahboubi, Mebrouk, Merzeraud, Vianey-Liaud, Tabuce and Marivaux, 2016

Locality and Horizon: Level HGL50 of the Glib Zegdou, late lower Eocene - middle Eocene, situated in the Gour Lazib region (Sahara, Hammada du Dra), Algeria.

Etymology: The name of the species refers to the Glib Zegdou, located in Gour Lazib, Algeria.

†*Chambinycteris* Ravel in Ravel, Adaci, Bensalah, Charruault, Essid, AMmar, Marzougui, Mahboubi, Mebrouk, Merzeraud, Vianey-Liaud, Tabuce and Marivaux, 2016

Etymology: The generic name refers to the locality (Chambi) where the specimens were collected.

†*Chambinycteris pusilli* Ravel in Ravel, Adaci, Bensalah, Charruault, Essid, AMmar, Marzougui, Mahboubi, Mebrouk, Merzeraud, Vianey-Liaud, Tabuce and Marivaux, 2016

Locality and Horizon: Chambi (CBI) loci 2 and 3, late lower Eocene - middle Eocene, Djebel Chambi, situated in the Kasserine region, Tunisia.

Etymology: The specific name comes from the Latin 'pusilli', meaning puny, because of the small size and the fragile aspect of this species.

VESPERTILIONIDAE

Neoromicia stanleyi Goodman, Kearney, Rakotoarivelo and Hassanin, 2017

Stanley's serotine (Eng.) serotine de Stanley (Fr.)

This undescribed species has been known in the literature for the past 23 years. RAUTENBACH *et al.* (1993) while documenting the karyotypes of southern African bats, found a large *Neromicia capensis* form in the eastern parts of southern Africa – which was similar in description to *Neoromicia melkorum* Roberts 1926. KEARNEY *et al.* (2002) collected bats at the type locality of *N. melkorum* in the Northern Cape and found that these larger animals had the same karyotype as *Neoromicia capensis* (A. Smith, 1829), with this species becoming smaller in size in an eastward direction (KEARNEY 2005). Hence *Neoromicia melkorum* was synonomized with *Neoromicia capensis*. But the larger sized individuals in the eastern parts of southern Africa - with a different karyotype - were recognized as a distinct species often referred to as *Neoromicia* cf. *melkorum*. ('cf.' from the Latin 'confer', meaning 'compare') so this species was like the description given, but is clearly not the same. The name cf. *melkorum* has been used in a number of publications (see appendix 1).

GOODMAN *et al.* (2016) have now formally described and named this species in honour of William ("Bill") Stanley (ca. 1957 – 2015). Bill was the mammal collection manager at the Field Museum of Natural History from 1989 to 2015, until his sudden death in the Ethiopia Highlands where he was conducting fieldwork.

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Appendix 1: Publications referring to "cf. *melckorum*":

± These publications only refer to the usage of "cf. *melckorum*" in other papers.

± BATES P. J. J., RATRIMOMANARIVO F. H., HARRISON D. L. and GOODMAN S. M. 2006. A description of a new species of *Pipistrellus* (Chiroptera: Vespertilionidae) from Madagascar with a review of related Vespertilioninae from the island. *Acta Chiropterologica* **8(2)**: 299 - 324. doi: 10.3161/1733-5329(2006)8[299:ADOANS]2.0.CO;2.

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± GOODMAN S. M., TAYLOR P. J., RATRIMOMANARIVO F. and HOOFER, S. R. 2012. The genus *Neoromicia* (Family Vespertilionidae) in Madagascar, with the description of a new species. *Zootaxa* **3250**: 1 - 25.

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