

Status of *Vesperus sinensis* Peters, 1880 and remarks on the genus *Vespertilio**

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Abstract. *Vesperus sinensis* Peters, 1880 has usually been considered a synonym of *Vesperugo plancyi* Gerbe, 1880, a subspecies of *Nyctalus noctula* s. l. Examination of the types confirmed position of *plancyi* within *Nyctalus* but it revealed that *sinensis* is identical with *Vespertilio superans* Thomas, 1899. The name was found valid, and, because of priority, a correct applicable name for all the Oriental forms of the genus (cf. Yoon et al. 1990) is *Vespertilio sinensis* (Peters, 1880). The paper is supplemented with a provisional diagnosis of the genus *Vespertilio*.

Systematics, vespertilionidae, *Vespertilio*, *Nyctalus*, China, Japan

Introduction

A vespertilionid form described by Wilhelm Peters (1880) under the name *Vesperus sinensis* ranks among obscurities the status of which was reconsidered several times and remains unclear until now. Peters described it within the genus *Vesperus* which content can be properly illustrated by a view proposed by Dobson (1878), who treated *Vesperus* as a subgenus, of course (in frame of the large genus *Vesperugo* Keyserling et Blasius, 1839). Since Dobson's (1878) classification illustrates well not only the original meaning of the genus in question, but also its immediate context, it is worth of being reminded. It was as follows:

Genus *Vesperugo* Keyserling et Blasius, 1839

Subgenus: *Vesperus* Keyserling et Blasius, 1839

a: *velatus*, *macrotus*, *montanus*, *magellanicus*

b: *serotinus*, *andersoni*, *hilarii*, *platyrhinus*, *minutus*, *capensis*, *magalurus*, *natusus*, *tenuipinnis*, *pumilus*, *grandidieri*, *propinquus*, *borealis*, *murinus*, *atratu*, *pachyotis*, *albigularis*

c: *pachypus*

* In memory of the late John Edwards Hill (1928–1997)

Subgenus: *Vesperugo* Keyserling et Blasius, 1839

noctula, *leisleri*, *stenopterus*, *imbricatus*, *maurus*, *affinis*, *circumdatatus*, *indicus*, *brachypterus*, *pipistrellus*, *tenuis*, *abramus*, *kuhli*, *maderensis*, *krefftii*, *pulcher*, *temmincki*, *annectens*, *georgianus*, *tylopus*, *nanus*

Subgenus: *Lasionycteris* Peters, 1865 (*noctivagans*)

Subgenus: *Hesperoptenus* Peters, 1868 (*doriae*)

doriae, *tickelli*, *blanfordi*

Subgenus: *Scotozous* Dobson, 1875 (*dormeri*)

dormeri, *schliefenii*

Subgenus: *Rhogeesa* Allen, 1866 (*parvula*)

Keyserling & Blasius (1839) proposed the name *Vesperugo* for 13 species one of which was *discolor* Natterer in Kuhl, 1819, that was, together with *serotinus*, placed in a separate subgenus *Vesperus*. The generic name *Vespertilio* was then applied to genus *Myotis* (in nowadays sense) because the type of the genus, *Vespertilio murinus* Linnaeus, 1758 was quite a logically coincided with the most common species, now named *Myotis myotis*. With discovering identity of Linné's *murinus* with *Vespertilio discolor* Kuhl, 1819 (a possibility substantiated at least due to the absence of *Myotis myotis* in the type area of *murinus*, i. e. Sweden) the generic name *Vesperugo* became a younger synonym of *Vespertilio* Linnaeus, 1758, and of the same reasons this concerned *Vesperus*. Moreover, the name *Vesperus* Keyserling et Blasius, was preoccupied by *Vesperus* Latreille, 1829 and, therefore, replaced by *Adelonycteris* by H. Allen, 1892 (Proc. Acad. Nat. Sci. Philadelphia, 1891: 466).

All these facts were recognized by G. S. Miller (1907) who, as concerned the rank of the named taxa, respected rather the opinions of Peters and/or Mehély (1900) than that of Dobson. Miller's profound rearrangement of vespertilionid genera provided then the classification that with minute changes is applied until now. In the full extent this concerns of the genera *Vespertilio* and *Eptesicus* which composed Peters's *Vesperus* (Peters rearranged *pachypus* in a separate genus *Tyloonycteris* much earlier, already in 1872). In any case, it is clear that Peters (1880) described *sinensis* in context of the genera *Eptesicus* and *Vespertilio* as currently understood.

G. M. Allen (1938) who provided a complete survey of Chinese bats for the first time, placed (of course, purely based on the literary data, i. e. without having examined the types) *sinensis* in synonymy of *Nyctalus noctula plancyi*, described originally as *Vesperugo (Noctula) plancyi* by Gerbe (1880), based on a female specimen sent from Beijing (orig. Peiping, Hopei, China) by V. Collin de Plancy. Allen's (1938) formulation „This was described from Peiping, in Northern China,

first by Gerbe, and again under the name *Vesperus sinensis* by Peters.“ and the way he discussed *sinensis* suggest that even he might believe in the objective synonymy of both the names. Then, since Gerbe’s description was published in 15 March 1880, whereas Peters’ description, although reported at the session of the Academy on March 1, 1880, was printed later, the prior name is that by Gerbe.

Tate (1942) at one place (p. 257) accepted this opinion and retained *sinensis* in synonymy of *plancyi* that he treated as a distinct species (at the same time he replaced the original name *plancyi* with *plancei* – perhaps due to misreading?). Anyhow, at the other place (p. 276) Tate treated *sinensis* as a valid subspecies of *Eptesicus serotinus* diagnosed just by quotation of the Peters’ description. Tate also provided measurements of an AMNH specimen identified as *Eptesicus sinensis* (No. 33135) from Northern China that he actually examined.

In any case, Ellerman & Morrison-Scott (1951) following the Allen’s opinion (and Tate’s misspelling of *plancyi*) placed *sinensis* in synonymy of *Nyctalus noctula plancei* (Gerbe, 1880), and this decision was accepted also by further surveys, including just the recent ones: Pavlinov et al. (1995) retain *sinensis* as a possible synonyme of *N. plancei*, Honacki et al. (1982) or Koopman (in Wilson & Reeder 1993) listed *sinensis*, together with *plancei* and *velutinus*, among numerous synonyms of *Nyctalus noctula*, and, finally, Corbet & Hill (1992) and/or Koopman (1994) do not list *sinensis* (perhaps as an obscurity) in synonymy list of any species, at all.

Results

I had an opportunity to examine the type of *sinensis* in the collections of the Museum für Naturkunde an der Humboldt-Universität zu Berlin, in 1981. The respective item (No. 5624) included a skull and a cadaver in alcohol, both in excellent order. The specimen is a female. Peltage colouration is generally dark reddish brown (paler on belly) with smooth whitish hair tips on back by which it gets somewhat „frosty“ appearance. Auricles and membranes are dark brown with paler spots along elbows. Tail tip is free at length of the terminal vertebra. There is a faint epiblema, much less pronounced than in typical *Nyctalus noctula*. The muzzle is broad, there are apparent lateral glands. The skull is relatively flat with a broad rostrum, dorsally flattened with shallow but well marked concavities in lacrimal region. Mandibular molars are myotodont sensu Menu & Sigé (1971) and Menu (1985). I¹ with an inner cuspid, I² about a half size of I¹, postincisive dentition eptesicoid, P³ absent at all, molars without any more pronounced talons and without epicristas, M³ fairly unreduced, with retained metacristas. Mandible is massive with spacious ramus mandibulae and broadly pointed processus coronoideus. Despite of apparent compression of the unicuspid dentition P₄ is square on section almost as high as C, P₃ being of less than a half height of P₄. My measurements are: HB 65, Tail 44.5, FA 50.6, tibia 16.8, femur 17.3, foot 8.4,

Hr. W. Peters machte eine Mittheilung über neue Flederthiere (*Vesperus*, *Vampyroptera*).

Unter verschiedenen, in Weingeist erhaltenen Gegenständen, welche aus Peking herkommen, befindet sich eine zu der Gattung *Vesperus* gehörige Art, die von allen bisher beschriebenen verschieden ist und von der ich mir erlaube, eine Mittheilung vorzulegen.

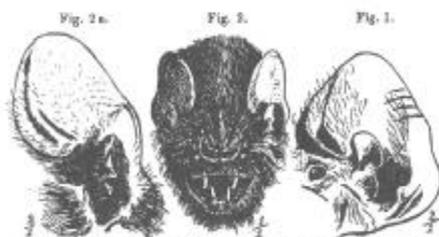


Fig. 1 linkes Ohr von *Vesp. sinensis*. Fig. 2 *Vampyroptera tylosus*.
Fig. 2a linkes Ohr desselben.

Vesperus sinensis n. sp. (Fig. 1.)

V. auriculis capite brevioribus, trago abbreviato scuriformi; opice caudae libero; dente incisivo superiore externo brevissimo, unicuspidato. Long. antibrachii ca. 5.

Habitatio: Peking (China).

Durch die Form der Ohren hat diese Art Ähnlichkeit mit *Vesperugo noctula*, indem sie eine viereckig abgerundete Gestalt haben. Sie sind jedoch dünnhäutiger und haben die Vorsprünge an der inneren Seite des unteren Theils der Ohrmuschel äusserst wenig entwickelt und den vorderen Rand der beilförmigen Ohrklappe etwas weniger concav. Die Schnauze ist breit und abgeplattet. Der erste Schneidezahn ist hoch und zweispitzig, während der äussere sehr kurze nur wenig das Cingulum von jenem überragt. Die Behaarung des Körpers ist fein und mässig lang. Der Schwanz ragt mit seiner knorpeligen Spitze frei aus der Schenkel-Flughaut hervor. Die Flughäute sind dünn und nackt mit Ausnahme der den Körper umgebenden Theile und sind bis zur Basis der Zehen angewachsen. Der Sporn ist knorpelig und von der Länge der Tibia, der Spornlappen wenig vorspringend.

Oben braun; die einzelnen Haare dunkelbraun, an der Spitze heller. Die Bauchseite ist blassbraun.

Von der Schnauze bis zur Schwanzbasis 70^{mm}; Kopf 2^{mm}; Ohrhöhe 10^{mm}; Ohrbreite 15^{mm}; vord. Ohrrand 13^{mm}. Schwanz 45^{mm}; Antibrachium 49^{mm}; Tibia 18^{mm}; Fuss 11^{mm}.

Ein Weibchen aus Peking (China) M. B. No. 5624.

finger II 43–6, finger III 44–18.5–12.2–7, finger IV 43–17.3–9–1, finger V 40–10.3–7–2. CrL 16.7, CbL 16.6, Zyg 11.03, IO 4.4, InfO 5.75, Width of braincase 8.23, Mast. W 9.75, Height of braincase 5.4, I–M³ 6.60, C–M³ 6.05, M¹–M³ 4.14, C–C 5.36, P⁴–P⁴ 5.73, M³–M³ 6.85, MdL 12.36, C–M₃ 6.43, P₄–M₃ 5.20, M₁–M₃ 4.42. Original Peter's data were: HB 70, Tail 45, FA 49, Ear 19, foot 11, tibia 18. In general, Peters's description (Fig. 1) characterizes the specimen quite a well and also in respect of the formal requirements it is without any doubt valid. Also the Peters's drawing of the auricle that supplements the description fits excellently to the actual appearance of the specimen.

The examination of the type specimen revealed that for several reasons *sinensis* can not be placed in *Nyctalus*. First, because it is a myotodont what contrasts to all *Nyctalus* spp. I examined (i. e. *noctula*, *leisleri*, *lasiopterus*, *velutinus*, *labiatus*, *azoreum*, *plancyi*, *maderensis*, *montanus*, *stenopterus*, *joffreyi*) which are nyctalodont, of course. The forms of *Nyctalus* corresponding to *sinensis* in size (i. e. those of *N. noctula* group) possess apparently a higher rostrum as well as relatively higher and more rounded braincase. Intermaxillary notch is considerably broader in *Nyctalus* and particular differences are in modelation of the lacrimal region. In *Nyctalus* it is heavily build with a convex orbital wall without dorsal concavities and any prominent lacrimal crest but with particularly massive margo frontalis ossis zygomatici, and, consequently, markedly shallow frontolateral base of the orbit. The opposite is the case in *sinensis*: lacrimal region is dorsally flattened with a broad but distinct lacrimal crest, base of orbit is deep in the lacrimal region and margo frontalis of os zygomaticum is as thin as in other vespertilionids.

Nevertheless, considerable differences can be found also between *sinensis* and any form of *Eptesicus serotinus* group with which *sinensis* shares some other characters (myotodonty, lack of P³, flattened rostrum, etc.). Namely, the unicuspid dentition is apparently more compressed in *sinensis* while, in contrast, this does not concern the distal section of the dentition. In *Eptesicus serotinus* group, both M³ and M₃ are fairly reduced. Talonid of M₃ is extremely reduced in *serotinus* group (including *Ia io*) while it is fairly unreduced in *sinensis*. Coronoid process is considerably high in *serotinus* group (indicating its carnivoroid predation for a larger prey) but low and pointed in *sinensis*.

In contrast to both *Nyctalus* and *Eptesicus* (as well as the other genera that may come here in account, viz. *Scotophilus*, *Scotomanes*, *Hesperoptenus*, *Scotozous*, *Philetor*) there is a complete correspondence, both in cranial and external characters, of *sinensis* with *Vespertilio* sensu stricto, namely with its Oriental form, *Vespertilio superans* Thomas, 1898, a form originally described as *Vespertilio murinus superans* (based on a female specimen from Sesalin, Ichang, Yang-tse-kiang, China – BMNH No. 97.4.21.1). The present comparison has largely been

<< Fig. 1. The original description of *Vesperus sinensis* Peters, 1880. Note Fig. 1 – shape of auricle.

based on a ISZ series of 12 individuals (3m, 9f) of *V. superans* collected in Buir Nur Lake, Mongolia in 1979 by V. Lobachev that was kindly purchased by I. Ja. Pavlinov and O. L. Rossolimo (Moscow) and one ISZ specimen of *V. orientalis* (Memabetsu, Daito, Hokkaido, Japan, coll. by K. Hattori 1965). Some specimens of this sample (and the cast of the type skull of *sinensis*) were directly compared with the material of *Vespertilio superans* deposited in British museum (NH) London in 1996 and were found to correspond exactly in all the essential characters.

Conclusions and discussion

The Oriental forms belonging to the genus *Vespertilio* were first surveyed in details by Wallin (1963) who paid particular attention to a Japanese form *Vespertilio namiyei* (Kuroda, 1920) which he distinguished from *superans* mainly by absence of calcified psedobaculum. Worth of mentioning is that Kuroda (1920) originally described this form as a subspecies of *Nyctalus noctula*, latter replaced it in *Eptesicus* and finally (Kuroda 1938) in *Vespertilio*. Wallin (1963) stressed the specificities of the continental form corresponding to *namiyei* and described it as a separate subspecies *V. n. andersoni*. In his latter analysis (Wallin 1969) he rejected the supposed differences between *namiyei* and *superans* but described an other new form, *Vespertilio orientalis*, distinguished by a darker pellation colouration, somewhat narrower tragus and by more prominent lacrimal process and cartilaginous psedobaculum. Status of all these forms was recently reexamined by Yoshiuki (1989) and with a particular respect to the penial morphology by Yoon et al. (1990). Their results demonstrated considerable age variation and a broad overlap in all the diagnostic characters and, hence, suggested that all the named forms (including *Vespertilio orientalis* Wallin, 1969) fall in synonymy of *superans*. By the way, the type of *sinensis* exhibits just an intermediate state between the extreme morphotypes (cf. e. g. a „*superans*“ coloration, „*orientalis*“ tragus, etc.).

In respect of the results by Yoshiuki (1989) and Yoon et al. (1990), one can conclude: (a) The present study demonstrated the identity of *sinensis* and the Oriental form of the genus *Vespertilio*, i. e. *V. superans* Thomas, 1899. (b) Since *sinensis* Peters, 1880 is a prior name of *Vespertilio superans* Thomas, 1898 the correct name for the Oriental form of the genus should be *Vespertilio sinensis* (Peters, 1880) and (c) it is to be applied also to all the other Oriental forms named within the present genus *Vespertilio* (viz. *namiyei* Kuroda, 1920, *aurijunctus* Mori, 1928, *montanus* Kishida, 1931, *motoyoshii* Kuroda, 1934, *andersoni* Wallin, 1963, *orientalis* Wallin, 1969).

Nevertheless, the taxonomy of Oriental *Vespertilio* calls for a profound revision that should cover all the materials available and should reveal as much details as possible on the pattern of character variation within the genus, particularly in respect to the geographic variation. It should also include a reexamination of the

species identity in some Oriental materials not explicitly identified as *Vespertilio* (e. g. Tate's *Eptesicus sinensis* and, in particular, the specimens referred to the *Nyctalus noctula* group). The latter is mentioned especially because similarity between *Nyctalus* and *Vespertilio* (*superans* in particular) in general morphology is remarkable indeed and concerns not only the external design but also most of the dental and cranial characters. No wonder that *sinensis* (similarly to *namiyei*) has been arranged just there and, correspondingly, it would not be too surprising if some of the specimens identified as belonging to *Nyctalus noctula* group would represent *Vespertilio* in fact. Worth of mentioning are, in these connections, the

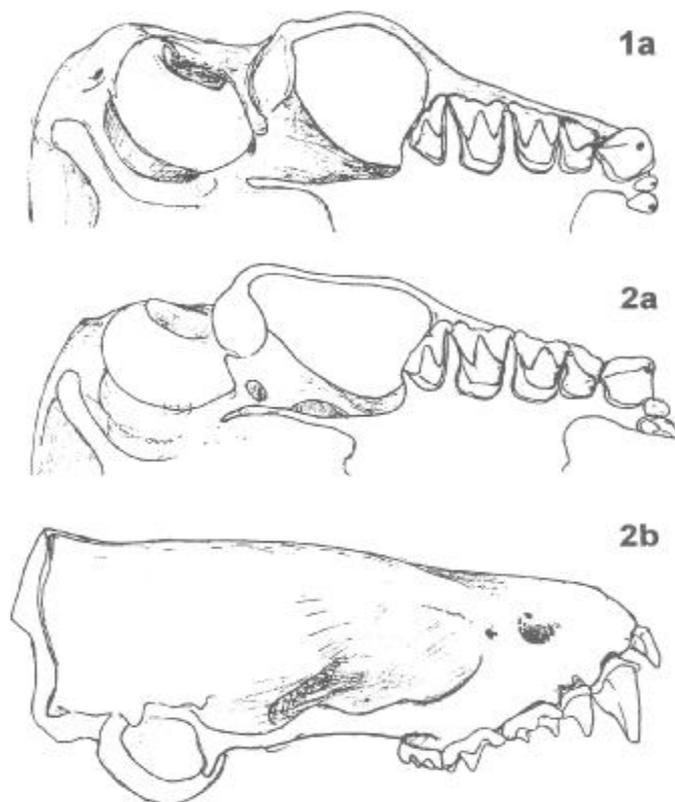


Fig. 2. Skull of (1) *Vesperus sinensis* (MNB No. 5624) and that of (2) *Vespertilio superans* ISZ-vs3, Mongolia. Palatal (a) and lateral (b) views.

doubts expressed on the status of some taxa e. g. by Allen (1938) or the fact that Tate (1942) who treated *plancyi* Gerbe, 1880 and *velutinus* G. M. Allen, 1923 as valid species within *Nyctalus noctula* group (similarly as e. g. Yoshiyuki 1989) doubted that *labiata* Hodgson, 1835 did belong to that genus at all. Based on my own examination, I can confirm, of course, that *labiatus* Hodgson, 1835 and *plancyi* Gerbe, 1880 (at least the specimens indicated as the respective types in the British Museum) do belong to *Nyctalus noctula* group without any doubt. Which is situation with other materials from the Oriental region remains a task of further revision.

Last but not least, there is still another problem that should be elucidated. As mentioned above, Allen (1938, p. 235) suggested that descriptions of both *plancyi* Gerbe, 1880 and *sinensis* Peters, 1880 might be based on one and the same specimen. If it was so, then there is a question: which is the true type and what are then the two specimens indicated as the types of the two species in the respective museum collections? Allen suggested that the type of *plancyi* was presumably in the Paris Museum. The specimen labeled as the type of *plancyi* in the British Museum (82.7.29.6) is a juvenile with a partly destroyed skull (belonging undoubtedly to *Nyctalus*) and apparently just this specimen has been mentioned as the type also by Tate (1942, p. 257 and 293) who examined its photography. Anyhow, it cannot be absolutely excluded that this specimen does not represent the type of *plancyi* Gerbe but the Szechuan specimen reported as such by Thomas (1912) which I did not succeed to find in the BM collections. Unfortunately, it is beyond my chances to solve the question, in the moment. In any case, what can be said for sure is that (1) the Berlin type of *sinensis* (MNB 5624) is undoubtedly identical (not only by the catalogue number) with the specimen mentioned in the original Peters's description, and (2) the description in all respects fits formal requirements of the International Code of Zoological Nomenclature, and consequently, the name is apparently valid. Already by this, *sinensis* provides a solid basis for further comparisons, and then all the consequences resulting of the above discussed study are to be taken in account. Moreover, the Berlin specimens is labeled with a note „von Brandt“ indicating it was provided from the other source than the specimen described by Gerbe. Hence, despite of lack of more detailed information, it seems quite possible to exclude that *plancyi* Gerbe, 1880 and *sinensis* Peters, 1880 are the objective synonyms. Allen (1938) who suggested such a view was (similarly as most of other authors) probably misled by a surprising synchronicity: simultaneous appearance of both descriptions, identity of the type locality and nearly identical measurements and other characters of both. Indeed, it is quite improbable that two quick ad hoc descriptions appearing within 15 days, both reporting a female bat of the same size and general appearance obtained at the same time from one and the same exotic locality did concern not only two different individuals but two different genera which specificities, moreover, characterize in brief most of the peculiarities accompanying systematics of the whole family. Thus, in

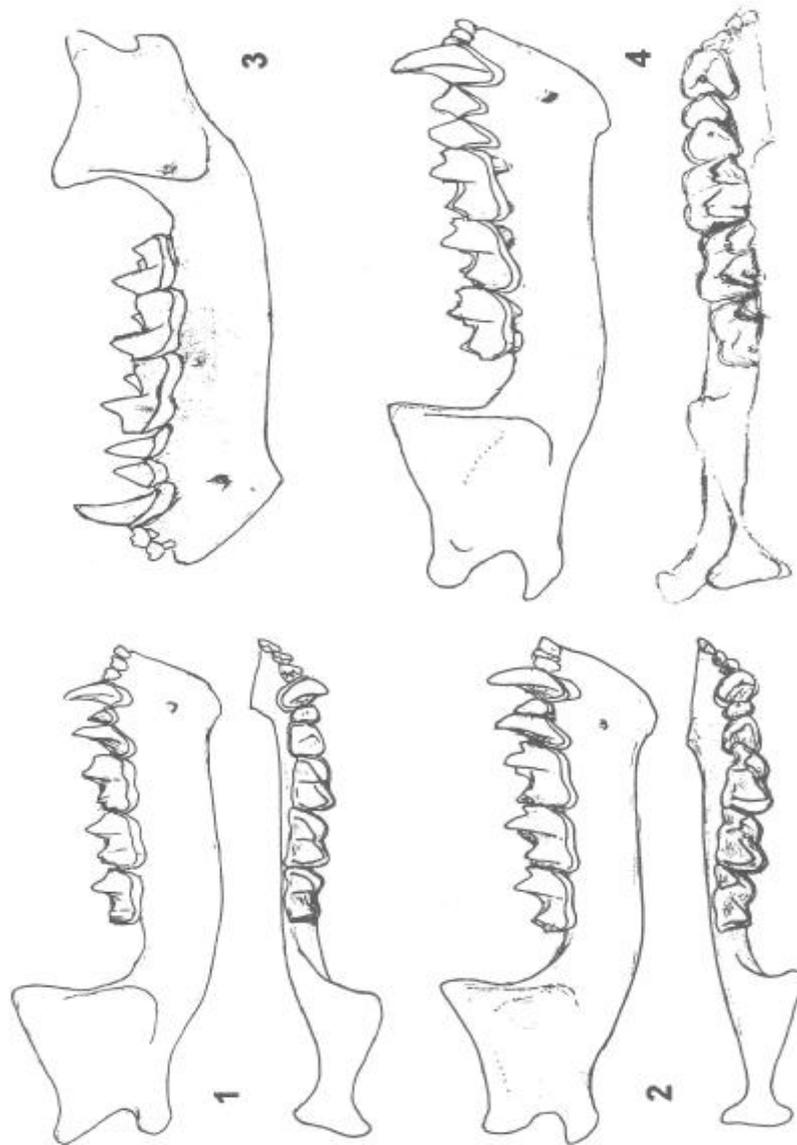


Fig. 3. Mandibles of (1) *Vesperus sinensis*, holotype MNB 5624, (2) *Vespertilio superans*, ISZ-vs3, Mongolia, (3) *Nyctalus labiatus*, NHM Wien No. 28343, Shanghai, China 1858, Coll. J. Zelebor, (4) *Nyctalus noctula meklenburzevi* ISZ-K89, southern Kyrgyzstan.

short, the case of *Vesperus sinensis* demonstrates that the probabilistic explanations are not always just the best ones. At the same time it also shows how much do we like to rely upon self-explanatory power of them, and how deceiving may it be to prefer such explanations before seemingly a little productive dawdling care for often quite obscure primary evidence.

Appendix – Diagnostic remarks on genus *Vespertilio*

For purpose of the above mentioned comparisons, a profound revision of diagnostic characters and establishing differential diagnoses of the genera in question are a necessary prerequisite. This remains, of course, a task of further study. In the moment, I wish to provide only a brief account of some diagnostic characters discriminating the genus *Vespertilio*. It may be, looked upon as a supplement to the previous diagnoses of the vespertilionid genera coming here in account (cf. e. g. Miller 1907, Horáček & Hanák 1985, Hill & Harrison 1987, Koopman 1994).

DIAGNOSIS OF THE GENUS: The medium sized forms of the pipistrelloid-nyctaloid appearance, aerial insectivores, with relatively narrow wing (narrower than *Pipistrellus* or *Eptesicus* but broader than *Nyctalus*), relatively long tail, distinct epiblema, massive short auricles with particularly well developed broad basal lobe that reach up to the level of eye, short rounded tragus and more or less marked „frosted“ pattern in peltage colouration on back.

(a) Myotodont (i. e. postcrisids connect hypoconids with entoconids), (b) compressed unicuspid dentition with reduced P_3 , (c) P^3 absents, (d) molar row unreduced, M^3 with well preserved metacristas, M_3 with an unreduced talonid, (e) skull flattened, rostrum broad, (f) no (or faint) basal pits, (g) ramus mandibulae broad with almost horizontal incisura sigmoidea superior and low faintly pointed processus coronoideus, (h) an unique penial morphology: *the body of corpora cavernosa terminated at about the proximal third length of penis with *Eptesicus*-like discoid baculum that is along the terminal part of urethra prolonged with a *psedobaculum which is either completely calcified (in *murinus*) or soft (in *sinensis* subadults and juveniles) and/or ?partly calcified (viz. *orientalis*), *preaputium enlarged longitudinally and internally folded along the pseudobaculum. For chromosomal characters and possible relationship of the genus see Harada et al. (1987) and Volleth (1989).

DIFFERENTIAL DIAGNOSES. The most of the penial characters are distinct autapomorphies of *Vespertilio*, the characters a, b, c, and g (partim) are partly shared with *Eptesicus*, *Hypsugo* or *Hesperoptenus*, the characters b and d with *Nyctalus*, *Philetor* or *Pipistrellus* (sensu Horáček & Hanák 1985).

Nyctalus differs from *Vespertilio* mainly in: (1) Nyctalodony (postcrisids connect hypoconids and hypoconulids, entoconids staying apart), (2) stick-like baculum lying above the urethra, bifurcated at the distal tip, (3) more robust skull particularly in lacrimal and orbital region, with a higher and rounded braincase,

and (4) P³ retained. In most characters, *Nyctalus* also fits the diagnosis of *Pipistrellus* as proposed by Horáček & Hanák (1985), except for more pronounced wing tip (and more shortened Vth finger), generally higher and more compressed dentition, the above mentioned specificities in lacrimal and orbital region, and lack of thickening of praeputium at distal tip of penis.

CONTENT OF THE GENUS (fossils omitted): *Vespertilio murinus* Linnaeus, 1758, and *Vespertilio sinensis* (Peters, 1880).

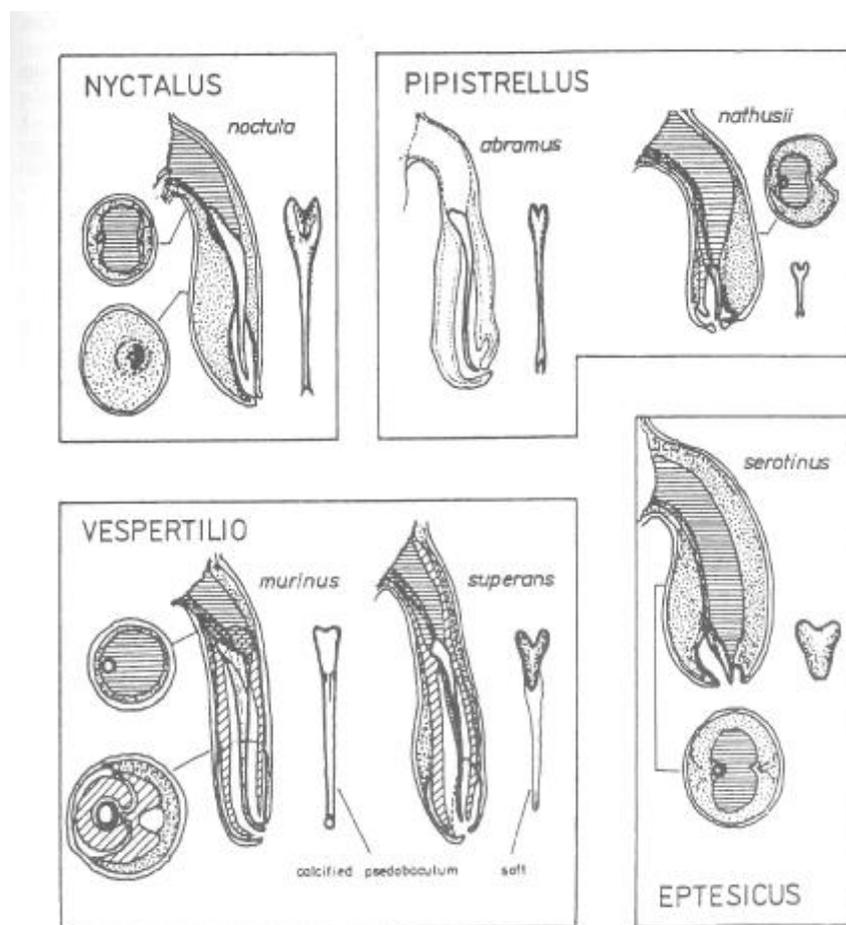


Fig. 4. A sketch of penial morphology and shape of baculum in the genera *Vespertilio*, *Nyctalus* and *Pipistrellus*. Slightly simplified after situation in more dissected sample specimens. Horizontally dashed: main body of corpora cavernosa, dotted: accessory cavernous tissue.

DISTRIBUTION. Among all chiropteran genera, the genus *Vespertilio* is, in the most sense of the word, the Palaearctic element. Its marginal records correspond quite exactly to the margins of the Palaearctic region, and the vicariance pattern revealed by the two species composing the genus (viz., *V. murinus* – from Britain to C-Asia and C-Siberia, *V. sinensis* – N-China, Far East, Japan) is a very characteristic also for more other Palaearctic clades (cf. e. g. *Myotis nattereri* group, *Hypsugo savii* s. l., etc.).

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Souhrn

Statut *Vesperus sinensis* Peters, 1880 a poznámky k rodu *Vespertilio*. Forma popsaná v roce 1880 vynikajícím německým chiropterologem Wilhelmem Petersem jako *Vesperus sinensis* patří k četným obskuritám, které prostupují systematikou nejpočetnější netopýří čeledi řádu – Vespertilionidae – již od samých počátků vědeckého zájmu. Ilustrativní ukázkou je již nominátní rod čeledi – *Vespertilio*. Jeho typový druh *Vespertilio murinus* byl jako nejhojnější zástupce skupiny popsán již Linnéem. V průběhu minulého století, s vystávající potřebou rozlišení výrazně odlišných forem na rodové úrovni (Blasius, Keyserling), bylo zcela logicky jméno *Vespertilio murinus* přiřazeno druhu, který středoevropské výzkumníci znali jako nejběžnější – dnešnímu netopýru velkému. Rodové jméno *Vespertilio* bylo tedy vztaženo na dnešní rod *Myotis*, zatímco krátkouché formy s redukovanou denticí byly Keyserlingem & Blasiem (1839) zařazeny do samostatného rodu *Vesperugo*. Jako samostatná skupina v rámci tohoto rodu byl vyčleněn podrod *Vesperus* zahrnující formy s absencí drobného premoláru v horní čelisti – dnešní rody *Eptesicus* a *Vespertilio*. Sem byl zařazen také druh *Vespertilio discolor* Kuhl, 1819, jehož popis již velice přesně vymezuje formu, dnes označovanou jako *Vespertilio murinus*. V takovémto případě jsou ovšem rodová jména *Vesperugo* i *Vesperus* pouze mladšími jmény Linnéova rodu *Vespertilio* a musí být nahrazena jinými. I když Linnéův popis *V. murinus* nezohledňuje žádné, z dnešního pohledu podstatné diskriminační znaky, proti identitě a *V. murinus* a *M. myotis* existuje přinejmenším jeden velmi silný argument. Totiž skutečnost, že v typové oblasti *V. murinus* – ve Švédsku, *Myotis myotis* nežije. Nejasnosti stran obou jmen přetrvávaly ovšem až do nedávné doby a definitivně byly vyřešeny teprve závazným rozhodnutím Mezinárodní komise pro zoologickou nomenklaturu v r. 1958 (1F-98). V každém případě je zřejmé, že Peters popsal druh *Vesperus sinensis* v kontextu dnešních rodů *Eptesicus* a *Vespertilio*.

Popis tohoto druhu provází ovšem pozoruhodná shoda náhod. S rozdílem 15 dnů se objevil rovněž popis netopýra *Vesperugo plancyi* Gerbe, 1880. V obou případech šlo o bleskové předběžné popisy jediného kusu čerstvě dodaného z Pekingu. V obou případech šlo o samici, prakticky shodných rozměrů, se stejnými externími i lebečnými charakteristi-

kami. Allen (1938), který ve své monografii o čínských savcích na tuto skutečnost upozorňuje, usuzoval celkem logicky, že velmi pravděpodobně jde o dvojí popis jednoho a téhož jedince. Přestože Peters ústně ohlásil nový druh na zasedání Pruské královské akademie věd již 1. března 1880, tištěná verze se objevila později než popis Gerbeho v magazínu *Le Naturaliste* z 15. března. Prioritu má tedy jméno Gerbeho a správné označení obou je tedy *Nyctalus plancyi* (Gerbe, 1880). Tento závěr byl v zásadě přijat všemi dalšími autory. Se jménem *sinensis* Peters, 1880 setkáme se tedy v seznamu synonym *Nyctalus noctula* (kam bývá *plancyi* – zpravidla pod chybně přepisovaným jménem *plancei* – většinou zahrnován), případně jako obskurita nebývá nyní již vůbec uváděno. Postupem let se mi podařilo zrevidovat typový materiál většiny kritických forem uvedeného rodového okruhu. Mohl jsem tak např. konstatovat, že typus *Nyctalus plancyi* (uložený ve sbírkách Britského musea v Londýně) náleží nepochybně příslušníku druhového okruhu *Nyctalus noctula*. Typový kus *sinensis* objevil jsem zhruba sto let po Petersově práci, ve sbírkách Přírodovědeckého musea v Berlíně, přesně v tom stavu jaký Peters popisuje. Zjistil jsem ovšem nejen to, že jde o jiný kus než typus *plancyi*, ale i to, že rozhodně nejde o příslušníka rodu *Nyctalus*. Ve všech znacích je *sinensis* identický s východoasijským zástupcem rodu *Vespertilio* – s druhem *Vespertilio superans*, do jehož široké variační šíře spadají (jak dokládají např. Yoshiuki 1989 nebo Yoon et al. 1990) také všechny další formy rodu *Vespertilio*, popsané z východní Asie (*namiyei*, *andersoni*, *orientalis*, atd.). *Vespertilio superans* byl popsán Thomasem v roce 1898, tedy o 18 let později *sinensis*. Protože Petersův popis je bez všech pochybností platný, platné jméno pro asijskou formu rodu *Vespertilio* je *Vespertilio sinensis* (Peters, 1880).

Případ *Vesperus sinensis* ilustruje nejen spletitosti alfa-taxonomické práce, a zkušenost, že popisy obskurních taxonů bývají provázány neméně obskurními peripetemiemi. Skýtá varování, že pravděpodobností interpretace (typu Allenova vysvětlení časové a věcné shody obou popisů) nemusí být vždy ty nejméně nejšťastnější a spoléhat na ně se ne vždy vyplácí.

References

- ALLEN G. M., 1938: *The Mammals of China and Mongolia. Natural History of Central Asia, Vol. II, Part I.* Amer. Mus. Natur. Hist., New York, 620 pp.
- CORBET G. B. & HILL J. E., 1992: *The Mammals of the Indomalayan Region: a Systematic Review.* Oxford Univ. Press, New York, 488 pp.
- DOBSON G. E., 1878: *Catalogue of the Chiroptera in the collection of the British Museum.* Brit. Mus. Nat. Hist., London, 567 pp.
- ELLERMAN J. R. & MORRISON-SCOTT T. C. S., 1951. *Checklist of Palaearctic and Indian mammals 1758 to 1946.* Brit. Mus. Nat. Hist., London, 810 pp.
- GERBE Z., 1880: On a new bat from China, *Vesperugo (Noctula) plancyi*. *Le Naturaliste*, 2me année, 24: 187.
- HARADA M., ANDO K., UCHIDA T. A. & TAKADA S., 1987: Karyotypic evolution of two Japanese *Vespertilio* species and its taxonomic implications (Chiroptera: Mammalia). *Caryologia*, 40: 175–184.
- HILL J. E. & HARRISON D., 1987: The baculum in the Vespertilioninae (Chiroptera: Vespertilionidae) with a systematic review, a synopsis of *Pipistrellus* and *Eptesicus*, and the description of a new genus and subgenus. *Bull. Brit. Mus. Natur. Hist. (Zool.)*, 52: 225–305.

- HONACKI J. H., K. E. KINMAN & KOEPL J. W. (eds.), 1982: *Mammal species of the world: A taxonomic and geographic reference*. Allen Press, Inc. and The Association of Systematics Collections, Lawrence, Kansas, 694 pp.
- HORÁČEK I. & HANÁK V., 1985: Generic status of *Pipistrellus savii* and comments on classification of the genus *Pipistrellus* (Chiroptera, Vespertilionidae). *Myotis*, **23–24**: 9–16.
- KEYSERLING A. & BLASIUS I. H., 1839: Die Übersicht der Gattungs- u. Artcharaktere d. europäische Fledermäuse. *Archiv für Naturgeschichte*, **5**(1).
- KOOPMAN K. F., 1994: *Chiroptera: Systematics. Handbuch der Zoologie, VIII, 60*. W. Gruyter, Berlin-New York, 217 pp.
- KURODA N., 1920: On a collection of Japanese and Formosan mammals. *Annot. Zool. Japan.*, **9**: 599–611.
- KURODA N., 1938: *A List of Japanese Mammals*. Tokyo, 122 pp.
- MEHÉLY L., 1900: *Monographia chiropterorum Hungariae*. Budapest, 371 pp.+tabs.
- MENU H., 1985: Morphotypes dentaires actuels et fossiles des Chiroptères Vespertilionines. Iere Partie: Étude des morphologies dentaires. *Palaeovertebrata*, **15**: 71–128.
- MENU H. & SIGÉ B., 1971: Nyctalodontie et myotodontie, importants caracteres de grade évolutifs chez les chiropteres entomophages. *C. R. Acad. Sci. Paris*, **272 D**: 1735–1738.
- MILLER G. S., 1907: The Families and Genera of Bats. *US Natur. Mus. Bull.*, **57**: 1–282.
- PAVLINOV I. JA, BORISENKO A. V., KRUSKOP S. V. & JAHONTOV E. L., 1995: Mlekopitajuščie Evrazii. II. Non-Rodentia. *Arch. Zool. Mus. Moscow State Univ.*, **33**: 1–336.
- PETERS W., 1880: Über neue Flederthiere (*Vesperus, Vampyrops*). *Monatsb. Kön. Preuss. Akad. Wiss. Berlin*, **1880**: 258–259.
- TATE G. H. H., 1942: Results of the Archbold Expeditions. No. 47. Review of the vespertilionine bats, with special reference to genera and species of the Archbold Collections. *Bull. Amer. Mus. Natur. Hist.*, **80**: 221–297.
- THOMAS P., 1912: The Duke of Bedford's zoological exploration of Eastern Asia. XV. On mammals from the provinces Szechuan and Yunnan, western China. *Proc. Zool. Soc. Lond.*, **1912**: 127–141.
- VOLLETH M., 1989: *Karyotypeevolution und Phylogenie der Vespertilionidae (Mammalia: Chiroptera)*. Dissertation, Univ. Erlangen-Nürnberg, 262 pp.
- WALLIN L., 1963: Notes on *Vespertilio namiyei* (Chiroptera). *Zool. Bidrag. Uppsala*, **35**: 397–416.
- WALLIN L., 1969: The Japanese Bat Fauna. *Zool. Bidrag. Uppsala*, **37**: 223–440.
- WILSON D. E. & REEDER D. A. M. (eds.), 1993: *Mammals species of the world: a taxonomic and geographic reference*. Smithsonian Institution Press, Washington-London, 1207 pp.
- YOON M. H., ANDO K. & UCHIDA T. A., 1990: Taxonomic Validity of Scientific Names in Japanese *Vespertilio* Species by Ontogenetic Evidence of the Penile Pseudobaculum. *J. Mamm. Soc. Japan*, **14**: 119–128.
- YOSHIUKI M., 1989: *A Systematic Study of the Japanese Chiroptera*. Natl. Sci. Museum, Tokyo, 242 pp.

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