

Nomenclatural notes on the Asian forms of *Barbastella* bats (Chiroptera: Vespertilionidae)

Nomeklatorické poznámky k asijským formám rodu *Barbastella*
(Chiroptera: Vespertilionidae)

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Abstract. The following names based on *Barbastella* bats from Asia were found available for nomenclatural purposes, and their type series and type localities were specified: *Vespertilio leucomelas* Cretzschmar, 1830, *Plecotus darjelingensis* Hodgson, 1855, *Barbastella caspica* Satunin, 1908, *Barbastella blanfordi* Bianki, 1917, *Barbastella walteri* Bianki, 1917, and *Barbastella beijingensis* Zhang, Han, Jones, Lin, Zhang, Zhu, Huang et Zhang, 2007. On the other hand, *Barbastellus dargelinensis* Dobson, 1875 has never been created as a new name, and *dargelinensis*, *darjelinensis* and *darjilingensis* used by DOBSON (1875, 1876, 1879) in combination with the genera *Barbastellus* Gray, 1838 or *Synotus* Keyserling et Blasius, 1839 are merely incorrect subsequent spellings of HODGSON'S (1855) *darjelingensis*, being thus not available for nomenclatural purposes.

Key words. Bats, *Barbastella*, Asia, nomenclature.

INTRODUCTION

According to modern taxonomic reviews (e.g. CORBET 1978, CORBET & HILL 1980, KOOPMAN 1993, 1994, HORÁČEK et al. 2000, SIMMONS 2005), the genus *Barbastella* Gray, 1821 (syn. *Barbastellus* Gray, 1825 and *Synotus* Keyserling et Blasius, 1839), consists of two species, *B. barbastellus* (Schreber, 1774) and *B. leucomelas* (Cretzschmar, 1830), which live mainly in the subtropic and temperate zones of the Palaearctic, reaching also northern parts of the Oriental region (BATES & HARRISON 1997, HORÁČEK et al. 2000, SIMMONS 2005). The alleged occurrence of *Barbastella* bats in the Afrotropics has been convincingly rejected (see GRUBB & ANSELL 1996). However, two recent papers suggested that this genus is more diversified. In particular, a new species, *B. beijingensis* Zhang, Han, Jones, Lin, Zhang, Zhu, Huang et Zhang, 2007, was described from north-eastern China (ZHANG et al. 2007) and the nominotypical Arabian form

of *B. leucomelas* was separated at the species level from the rest of the species (ZHANG et al. 2007, BENDA et al. 2008). A question arose as to which name should be applied the remaining barbastelle populations living in Asia from Transcaucasia through Central Asia and the Himalayas to Taiwan, which were generally considered a subspecies named *Barbastella leucomelas darjelingensis* (Hodgson, 1855) (e.g. SIMMONS 2005).

These populations were originally included in the seemingly widespread Eurasian species *Barbastellus communis* (Gray, 1838) (e.g. BLYTH 1863, HUTTON 1872, JERDON 1874), currently known as *Barbastella barbastellus* (Schreber, 1774). However, DOBSON (1875, 1876, 1878, 1879) suggested that *Plecotus darjelingensis* Hodgson, 1855 is a barbastelle bat, not a *Plecotus*, and that Indian barbastelle bats should bear the name *Barbastella darjelingensis* (Hodgson, 1855). His view has been widely accepted by subsequent authors, who listed HODGSON'S *darjelingensis* in combination with the genus *Synotus* Keyserling et Blasius (e.g. ANDERSON 1881, SCULLY 1881, BLANFORD 1888, RADDE 1899, KAŠENKO 1905) or, later, with the genus *Barbastella* Gray (e.g. SATUNIN 1905, 1908, 1914, MILLER 1907, THOMAS 1911, TATE 1942, KUZĀKIN 1950, BOGDANOV 1953, STRELKOV 1963). ELLERMAN & MORRISON-SCOTT (1951) merged *Plecotus darjelingensis* Hodgson, 1855 with *Vespertilio* (= *Barbastella*) *leucomelas* Cretzschmar, 1830, and this view was accepted by many subsequent authors (e.g. ETEMAD 1964, 1967, KUZĀKIN 1965, MEYER-OEHME 1968, WALLIN 1969, GAISLER 1971, NEUHAUSER & DEBLASE 1974, CORBET 1978, STRELKOV et al. 1978, DEBLASE 1980, YOSHIYUKI 1989, KOOPMAN 1993, 1994, BORISENKO & PAVLINOV 1995, BATES & HARRISON 1997, ZHANG et al. 1997, HORÁČEK et al. 2000, ALFRED et al. 2002, LIN et al. 2002, WANG 2003, SIMMONS 2005, ZHANG et al. 2007), most of who, however, recognized *Barbastella leucomelas darjelingensis* as a valid subspecies, covering Indian and Central Asian populations of this species.

BIANKI (1917) disagreed with DOBSON, suggesting that HODGSON'S *Plecotus darjelingensis* indeed applies to a *Plecotus* bat as assumed by HODGSON (in HORSFIELD 1855), and proposing for the Indian barbastelle bat a new name, *Barbastella blanfordi*. BOBRINSKOJ (1925) agreed with BIANKI (1917) as regards the application of *Plecotus darjelingensis* Hodgson, 1855, but observed that *caspica* Satunin, 1908 has precedence over *blanfordi* Bianki, 1917 and corrected the name of the bat accordingly (from BIANKI'S *Barbastella blanfordi* to *Barbastella caspica*). The name *Barbastella caspica* was applied to Central Asian and Indian barbastelle bats by some Russian authors of the 1920s and 1930s (BOBRINSKOJ 1926, 1929, OGNEV 1927, 1928, KUZĀKIN 1934, ARGIROPOULO 1939), but TATE (1942) rejected BIANKI'S (1917) reasoning and subsequent authors thus continued to apply to these populations the name *Plecotus darjelingensis* Hodgson, 1855, following DOBSON (1875, 1876, 1878, 1879).

Below, we discuss nomenclatural status and applicability of these names, where appropriate. A full list of names based on barbastelle bats from Asia is presented in a subsequent chapter. Relevant portions of the rare BIANKI'S (1917) publication are given in the Appendix. The expression 'barbastelle bats' is used solely for bats of the genus *Barbastella* Gray throughout this paper.

Museum acronyms. BMNH = Natural History Museum, London, UK [formerly: British Museum (Natural History)]; EICML = East India Company Museum, London, UK; IMC = Indian Museum, Kolkata, India; IOZB = Institute of Zoology, Chinese Academy of Sciences, Beijing, China; SGMT = State Georgian Museum, Tbilisi, Georgia; SMF = Forschungsinstitut und Museum Senckenberg, Frankfurt am Main, Germany.

RESULTS AND DISCUSSION

Plecotus darjelingensis Hodgson

The name *Plecotus darjelingensis* was first proposed by HODGSON in HORSFIELD (1855), where it was accompanied by the following text (HORSFIELD 1855: 103): “Nearly allied to the former [i.e. to *Plecotus homochrous* Hodgson, 1847], but considered distinct by Mr. Hodgson. The dimensions are the same in all points; the colour is deeper, inclining to blackish. The lobes of the ear are spreading, with a small appendicule at the bases. The tragus is narrow.” In addition to *Plecotus homochrous* and *P. darjelingensis*, HORSFIELD (1855) listed also typical representatives of the genus *Barbastella* under the name *Barbastellus Daubentonii* [Bell, 1836] [= *Barbastella barbastellus* (Schreber, 1774)] with a note: “Examined by R. F. Tomes, Esq., who considers it identical with the European species, although somewhat darker in colour from its preservation in spirits.” From these two descriptions and other noted circumstances, it seemed to be apparent, that the name *darjelingensis* Hodgson, 1855 applied rather to bats from the genus *Plecotus* than to those from the genus *Barbastella*.

HORSFIELD (1855) did not specify the type locality of this new species, but it probably originated from the region the paper dealt with, i.e. “Nepal, Darjeling, Tibet and other parts of India near the Himalayan range” (HORSFIELD 1855: 101). A closer look at HODGSON’s activities in India and at the fate of his collections allows specification as to on which specimens HODGSON based his *Plecotus darjelingensis*, their geographic origin, and, finally, their taxonomic identity.

Brian Houghton HODGSON (1801–1894) spent two long periods of his life in India: he lived in Kumaon, Nepal, and Calcutta between 1818–1844, and in Darjeeling between 1845–1858 (see WATERHOUSE 2004, DICKINSON 2006). Shipments of mammals received by the BMNH from HODGSON’s first period did not contain barbastelle bats (see GRAY & GRAY 1847, THOMAS 1906). The specimens mentioned by HORSFIELD (1855, 1856) were thus collected, with a high probability, during the second period of HODGSON’s stay in India.

In 1858, the third consignment of the HODGSON collection (of mammals) arrived in London (THOMAS 1906: 8), resulting from his stay in “Darjiling” [= Darjeeling, West Bengal, India]. GRAY & GRAY (1863) published a catalogue of this collection, in which they mentioned no relevant bat specimens, but a drawing: “*Plecotus? darjilingensis*, Hodgson, n. sp. *Hab.* – India House, Nov. 1852, no. 9. Drawing, no. [none] – The Paskan (with skull and stomach).” This drawing still exists in the archives of the BMNH in London (BMNH Z 88 ff H). It is a watercolor showing a bat from its ventral side with stretched left wing and half-stretched right wing, and two pen drawings showing the head of the bat from lateral view and its stomach, respectively (Fig. 1). The sheet bears the following inscription in ink: “*Plecotus? Darjilingensis. mihi. Hd. // The Paskan // India House Nov. 1852 // No. 9*”. The first line of the text clearly indicates HODGSON’s authorship of the drawings and of the name (*mihi* = of mine, *Hd.* = Hodgson). These drawings thus show a specimen upon which HODGSON based his *Plecotus darjelingensis*.

The type specimens of *Plecotus darjelingensis* were “presented to the Hon. East India Company by B. H. Hodgson, Esq., in 1853” (HORSFIELD 1856: 393). The fate of these specimens is unknown in detail, but a specimen, apparently from the original HODGSON’s series, was registered at the BMNH in September 1854 as BMNH 54.9.1.13. The whole collection of the EICML was moved to the BMNH in 1860, but the latter consignment did not include any specimens of barbastelle bats (GRAY & GRAY 1863, THOMAS 1906). The specimen BMNH 1854.9.1.13 (an alcohol specimen with extracted skull) was recognized as a type of *Plecotus darjelingensis* Hodgson by WROUGHTON (1918) and later studied as such by TATE (1942) who, however, mis-

quoted the final figure in its number as “3” (instead of “13”), he was followed in this error by e.g. WALLIN (1969) and YOSHIYUKI (1989). This specimen is still kept in the mammal collection of the BMNH, where one of us (PB) revised it in January 2004 (see also BENDA et al. 2008).

In 1879, a consignment of mammals from the IMC arrived at the BMNH. It included HODGSON's specimens from Darjeeling, but there is no evidence that a barbastelle bat was among them (THOMAS 1906). HORSFIELD (1856) said that the specimens of *Plecotus darjelingensis* received from B. H. HODGSON originated from “Nepal; Central Hills”. The surviving specimen (BMNH 1854.9.1.13) was said to have originated from “Nepal” by WROUGHTON (1918) and TATE (1942). A label attached to it bears an inscription “Nepal, B. H. Hodgson” (PB, pers. observation). This seems to be an error for Darjeeling, probably introduced by George Robert GRAY (1808–1872), the then curator at the BMNH (cf. SHARPE 1906: 386). Both the drawing and the BMNH specimen of *Plecotus darjelingensis* were obtained from HODGSON by London institutions in the time when he resided in Darjeeling and also the name given by HODGSON to the bat (*darjelingensis*) indicates that the specimens originated from Darjeeling. We have thus



Fig. 1. Facsimile of B. H. HODGSON's unpublished drawing of *Plecotus? Darjilingensis* [BMNH Z 88 ff H] presented by him to the EICML, London, and now deposited in the BMNH, London. The drawing was mentioned by GRAY & GRAY (1863). © Natural History Museum, London, UK.

Obr. 1. Faksimile nepublikovaného obrázku *Plecotus? Darjilingensis*, který B. H. HODGSON namaloval podle typového jedince *Plecotus darjelingensis* a věnoval Museu Východoindické společnosti v Londýně. Dnes je obrázek archivován v Přírodovědném muzeu v Londýně pod číslem BMNH Z 88 ff H, jeho existenci zmiňuje katalog GRAYE & GRAYE (1863).

no doubt that Darjeeling is the proper type locality of *Plecotus darjelingensis* Hodgson, as has been already assumed by THOMAS (1911) and many others (e.g. ALLEN 1938, KUZÁKIN 1950, ELLERMAN & MORRISON-SCOTT 1951, WALLIN 1969, DEBLASE 1980, YOSHIYUKI 1989, CORBET & HILL 1992, BATES & HARRISON 1997, HORÁČEK et al. 2000).

ALLEN (1938: 256) arrived at a different opinion as regards the type of *Plecotus darjelingensis* Hodgson: “This bat was described from a specimen collected by Hodgson in Darjeeling, India, near the borders of Sikkim. It is presumably this specimen that furnished the basis of the brief description, by Dobson, in 1876, and if so, it is perhaps still in the Indian Museum at Calcutta [= Kolkata].” However, no relevant specimens in the IMC were mentioned by BLYTH (1863), DOBSON (1876) or ANDERSON (1881), so ALLEN’s (1938) assumptions seem to have been incorrect.

One of us (PB) revised both the syntype specimen (BMNH 1854.9.1.13) and the watercolor with associated pen drawings (BMNH Z 88 ff H) with the following results: The drawings apparently show a bat of the genus *Barbastella*, the affiliation to this genus being obvious from the shape of the face and ears as well as from the coloration. Bats of the genus *Plecotus* do not have such a dark ventral side, but have much longer and relatively narrower ears and tragi (cf. figures in any identification key to Eurasian bats – e.g. OGNEV 1928, KUZÁKIN 1950, 1965, STRELKOV 1963, DEBLASE 1980, BATES & HARRISON 1997). The restudy of the specimen BMNH 1854.9.1.13 resulted in the same conclusions as that previously reported by TATE (1942) (see also BENDA et al. 2008). Herewith, it has been established that both the surviving syntype of *Plecotus darjelingensis* Hodgson, 1855 and its syntype painted by HODGSON (Fig. 1) belong to the Indian (s. l.) populations of *Barbastella* bats and the definition of the name has been thus fixed. This observation fully supports DOBSON’s (1875) taxonomic opinion, confirming that *darjelingensis* Hodgson belongs in the genus *Barbastella* instead in *Plecotus*. HODGSON himself was uncertain about the generic position of his *darjelingensis*, which is indicated by the question mark he added to the genus name on the drawing (Fig. 1). HODGSON’s (1855) error is understandable, because *Plecotus* and *Barbastella* resemble each other and are conspicuous in having joined pinnae above the eyes.

***Barbastellus darjelingensis* Dobson**

DOBSON (1875, see also DOBSON 1876, 1878, 1879) suggested that HODGSON’s *darjelingensis* is a barbastelle bat, not a *Plecotus*, and, accordingly, transferred the species to the genus *Barbastellus* Gray, 1838 (DOBSON 1875) and later, on nomenclatural grounds, to the genus *Synotus* Keyserling et Blasius, 1839 (DOBSON 1876, see also DOBSON 1878, 1879). BIANKI (1917) suggested that HODGSON’s (in HORSFIELD 1855) *Plecotus darjelingensis* indeed is a *Plecotus* bat and that DOBSON (1876, 1878), by applying the name to a different bat species, created a new name available for nomenclatural purposes. DOBSON’s action can be traced back to DOBSON (1875), which was unknown to BIANKI (1917). However, BIANKI’s (1917) interpretation is at variance with the currently valid International Rules of Zoological Nomenclature (ICZN 1999, Art. 49). Neither *Barbastellus darjelingensis* “Dobson”, nor *Synotus darjelingensis* “Dobson” are available for nomenclatural purposes (contra e.g. ANDERSON 1881, SCULLY 1881, OGNEV 1927, 1928, BOBRINSKOJ 1929, KUZÁKIN 1950, ELLERMAN & MORRISON-SCOTT 1951, BOGDANOV 1953, STRELKOV 1963, YOSHIYUKI 1989, SIMMONS 2005). Note that DOBSON, in addition to creating new combinations of the species name *darjelingensis* Hodgson, misspelled the species name as “*dargelingensis*” (DOBSON 1875, 1876), “*darjelinensis*” (DOBSON 1876) and “*darjilingensis*” (DOBSON 1879). All of these are subsequently incorrect spellings, which are not in prevailing use and which thus have no standing in zoological nomenclature (ICZN 1999, Art. 33.3).

SYSTEMATIC LIST

Vespertilio leucomelas Cretzschmar

Vespertilio leucomelas CRETZSCHMAR, 1830: 73.

Plecotus leucomelas (Cretzschmar): GRAY 1838: 495. [New combination]

Synotus leucomelas (Cretzschmar): RÜPPELL 1842: 156. [New combination]

Barbastella darjelingensis leucomelas (Cretzschmar): TATE 1942: 265. [New combination and new rank]

Barbastella leucomelas Cretzschmar: RYBERG 1947: 94. [New taxonomic opinion]

Barbastella barbastellus leucomelas Cretzschmar: KOCK 1969: 176. [New taxonomic opinion]

TYPE SERIES. CRETZSCHMAR (1830) did not indicate any specimen. However, all material described by CRETZSCHMAR (1826–1830) was collected by Eduard RÜPPELL (1794–1884) during his journey to north-eastern Africa and adjacent regions in 1822–1827. RÜPPELL (1842: 156) mentioned two SMF specimens collected by himself, under catalogue numbers SMF II.M.1a (now SMF 4373 – see MERTENS 1925: 21) and SMF II.M.1b (now SMF 12393 – see KOCK 1969: 177). The former specimen was designated as the lectotype of *Vespertilio leucomelas* by MERTENS (1925: 21).

TYPE LOCALITY. “Das petraeische Arabien” [= Arabia Petraea] according to CRETZSCHMAR (1830). Restricted by BENDA et al. (2008) to “the area of the Sinaitic peninsula to the south of the connecting line between the towns of Suez and Aqaba”, i.e. a triangular area between Suez [= As Suways], Egypt (29° 58' N, 32° 32' E), Aqaba [= Al 'Aqaba], Jordan (29° 31' N, 35° 01' E) and the Ras Muhammad Cape, Egypt (27° 43' N, 34° 15' E). See BENDA et al. (2008) for details.

NOW. *Barbastella leucomelas* (Cretzschmar, 1830). See ELLERMAN & MORRISON-SCOTT (1951), KOOPMAN (1993), SIMMONS (2005), ZHANG et al. (2007), and BENDA et al. (2008).

REMARKS. Several authors (e.g. ALLEN 1939: 83; ELLERMAN & MORRISON-SCOTT 1951: 176; SANBORN & HOOGSTRAAL 1955: 117; HOOGSTRAAL 1962: 146; STRELKOV 1963: 175; ETEMAD 1964: 653, 1967: 278; HARRISON 1964: 176; KUZÂKIN 1965: 100; MEYER-OEHME 1968: 98; WALLIN 1969: 337; GAISLER 1971: 102; NEUHAUSER & DEBLASE 1974: 91; CORBET 1978: 60; STRELKOV et al. 1978: 35; DEBLASE 1980: 231; QUMSIYEH 1985: 63, 1996: 110; HARRISON & MAKIN 1988: 594; YOSHIYUKI 1989: 179; HARRISON & BATES 1991: 103; KOOPMAN 1993: 199, 1994: 109; BORISENKO & PAVLINOV 1995: 102; HORÁČEK et al. 2000: 134; ALFRED et al. 2002: 52; LIN et al. 2002: 315; HOATH 2003: 64; SIMMONS 2005: 480; ZHANG et al. 2007: 1393) believed that the name *Vespertilio leucomelas* was published in 1826, i.e. in the year when “Rüppell’s Atlas” (see CRETZSCHMAR 1826) began to be issued. According to MERTENS (1925: 19), the sheets 18–19 associated with Tables 27–30 of CRETZSCHMAR (1826–1830), containing also the description of *V. leucomelas* (sheet 18 and Table 28, respectively), were published in 1830 (see also KOCK 1969, CORBET & HILL 1992, BATES & HARRISON 1997, and/or RYDELL & BOGDANOWICZ 1997).

Plecotus darjelingensis Hodgson

Plecotus Darjilingensis “mihi. Hd.” [= HODGSON, 1845–1852] [Inscription on the painting BMNH Z 88 ff H; unpublished name]

Plecotus darjelingensis Hodgson in HORSFIELD, 1855: 103. [Note that the spelling of this species name differs from HODGSON’s inscription on the painting. It remains unclear, whether the change is due to a printer’s error or HORSFIELD’s intention. In any case, the spelling *darjelingensis* is the correct original spelling of the name (see ICZN 1999, Art. 32.2)]

Barbastellus dargelinensis (Hodgson): DOBSON 1875: 85. [New combination, species name misspelled]

Synotus dargelinensis (Hodgson): DOBSON 1876: 86. [New combination, species name misspelled]

Synotus darjelinensis (Hodgson): DOBSON 1876: 218. [Species name misspelled]
Synotus darjilingensis (Hodgson): DOBSON 1879: 12. [Species name misspelled]
Barbastella darjelingensis (Hodgson): SATUNIN 1905: 13. [New combination]
Barbastella darjilingensis (“Hodson”): SATUNIN 1914: 17. [Species name misspelled]
Barbastella leucomelas darjelingensis (Hodgson): ELLERMAN & MORRISON-SCOTT 1951: 176. [New rank]

AUTHORSHIP. The binomen *Plecotus darjelingensis* was first published in an article authored by HORSFIELD (1855), who cited HODGSON as the author of the name (and nominal taxon). The painting BMNH Z 88 ff H (Fig. 1) evidences that HODGSON both recognized the species and provided the name. Also, HODGSON has been generally accepted as the author of *Plecotus darjelingensis* and there is no reason to cast any doubts on the authorship. BIANKI’S (1917: 75; see Appendix) suggestion that HODGSON supplied just the name and that the description was provided by HORSFIELD (who would thus become the author of the species name) is unsupported.

TYPE SERIES. HODGSON (in HORSFIELD 1855) did not indicate on which specimens he based this species. Circumstantial evidence suggests that the type series consisted of at least two syntypes. HODGSON lived between 1845–1858 in Darjeeling, but visited London in 1853 (see DICKINSON 2006), when he presented a large collection of natural history specimens to the EICML (HORSFIELD 1856). HORSFIELD (1855: 103) listed *Plecotus darjelingensis* as present in this collection and remarked that “the specimens of this [species] are few and not well preserved”. The plural indicates that at least two syntypes existed, but certainly not many more. In September 1854, an alcohol specimen of this bat was registered at the BMNH as BMNH 1854.9.1.13, which was received by the BMNH either directly from HODGSON or via EICML. In addition, the BMNH contains a painting of this bat inscribed by HODGSON’S hand as “Plecotus? Darjilingensis. mihi. Hd.” (Fig. 1). The specimen illustrated in this painting is also a syntype of *Plecotus darjelingensis* Hodgson, but is probably identical with one of the specimens mentioned by HORSFIELD (1855). Today, to our best knowledge, only the specimen BMNH 1854.9.1.13 and the painting BMNH Z 88 ff H survive. That conclusion represents an indication of the types by the present designation and conforms with the opinions presented by WROUGHTON (1918: 584) and TATE (1942: 264).

TYPE LOCALITY. Darjeeling, West Bengal, India; 27° 02’ N, 88° 16’ E (see above for discussion).
NOW. *Barbastella darjelingensis* (Hodgson, 1855). See ZHANG et al. (2007), BENDA et al. (2008), and P. BENDA (this paper).

***Barbastella barbastella caspica* Satunin**

Barbastella barbastella caspica SATUNIN, 1908: 43.
Barbastella blanfordi caspica Satunin: BIANKI 1917: 75.
Barbastella caspica Satunin: BOBRINSKOJ 1925: 341. [New rank]

TYPE SERIES. Two unspecified specimens, collected by P. SCHMIDT [ŠMIDT’] and Aleksandr Bebutovič ŠELKOVNIKOV’ on 6 April 1907 [= 19 April 1907 NS] at the type locality (SATUNIN 1908: 43). At least a skin (lacking skull) is still deposited in the SGMU (S. GAZARYAN, pers. comm. 2008).

TYPE LOCALITY. “Dolina r. Pirsagat’, sel. Kubaly” (SATUNIN 1908: 43), i.e. Pirsagat River valley, Qubalıbalaoğlan village, Hacıqabul District, Azerbaijan; 40° 07’ N, 49° 03’ E.

NOW. *Barbastella darjelingensis* (Hodgson, 1855). See STRELKOV (1981) and BENDA et al. (2008).

REMARKS. SATUNIN (1908, 1914) believed that the species name *barbastellus* is an adjective and changed its ending to agree in gender with the generic name. This would be correct if the name would be an adjective, because the genus name *Barbastella* is feminine (MILLER 1897, 1907) and the provisions of Art. 34.2 of the ICZN (1999) would apply. However, SCHREBER'S (1774) *barbastellus* is a noun in apposition as already stressed by MILLER (1897: 385), which must not be changed to agree in gender with the generic name (ICZN 1999, Art. 31.2.1, 34.2.1). SATUNIN'S (1908) species name *barbastella* is thus just an incorrect subsequent spelling without standing in zoological nomenclature (ICZN 1999, Art. 33.3).

***Barbastella blanfordi* Bianki**

Barbastella blanfordi BIANKI, 1917: 75.

Barbastella caspica blanfordi "Bianchi" [= Bianki]: BOBRINSKOJ 1925: 341. [New rank]

TYPE SERIES. BIANKI (1917) believed that *Synotus dargelinensis* was applied by DOBSON (1876, 1878) in a different sense than by HODGSON (in HORSFIELD 1855). Hence, he created a new replacement name (his "nom. emend.", see Appendix) for *Plecotus darjelingensis* Hodgson, 1855 sensu DOBSON (1876, 1878). *Synotus dargelingensis* Dobson, 1876 is not an available name and the type series of *Barbastella blanfordi* Bianki thus consists of specimens denoted by this unavailable name (ICZN 1999, Art. 72.4.4). They include seven specimens then deposited in the IMC, reported by DOBSON (1876: 218–220, 222) under Nos. 706–711 and 745, and two unnumbered specimens deposited in the BMNH, reported by DOBSON (1878). ANDERSON (1881) mentioned only six specimens in IMC under numbers 138a–f, which correspond with DOBSON'S (1876) specimens 706–710 and 745.

TYPE LOCALITY. The type locality encompasses collection localities of all syntypes (ICZN 1999, Art. 76.1), i.e. the following sites (DOBSON 1876: 218, 220, 222; 1878: 177): "Masuri" [= Mussoorie, Uttarakhand, India; 30°27' N, 78°05' E], "Darjeeling" [= Darjeeling, West Bengal, India; 27° 02' N, 88° 16' E], "Laching, Sikkim, 8000 ft." [= Lachung, Sikkim, India; 27° 41' N, 88° 45' E], "Simla" [= Shimla, Himachal Pradesh, India; 31° 04' N, 77° 11' E], and "Yangihissar" [= Yengisar, Xinjiang Uygur Zizhiqu, China; 38° 56' N, 76° 10' E]. In addition, one syntype was collected from an unknown locality in "India" (DOBSON 1878) in the sense of the then British India [ca. 8°–37° N, 60°–101° E].

NOW. *Barbastella darjelingensis* (Hodgson, 1855). See KUZÁKIN (1950), STRELKOV (1963) and BENDA et al. (2008).

REMARKS. BIANKI'S (1917) paper is sometime dated as from the year 1916 (e.g. BOBRINSKOJ 1925: 341; OGNEV 1928: 588; RYBERG 1947: 93; KUZÁKIN 1934: 325, 1950: 311; ELLERMAN & MORRISON-SCOTT 1951: 176; STRELKOV 1981: 42; YOSHIYUKI 1989: 179; BORISENKO & PAVLINOV 1995: 102; SIMMONS 2005: 480), because the journal volume bears the date '1916' on the cover, but BIANKI'S paper bears a printed date 'May 1917', which means that it was probably published between 14 May – 13 June 1917 (NS).

***Barbastella blanfordi walteri* Bianki**

B[arbastella blanfordi] walteri BIANKI, 1917: 75.

Barbastella caspica walteri "Bianchi" [= Bianki]: BOBRINSKOJ 1925: 341.

Barbastella caspica valteri "Bianchi" [= Bianki]: KUZÁKIN 1934: 325. [Species name misspelled]

TYPE SERIES. Three specimens (= syntypes), collected by Gustav RADDE and Alfred WALTER on 9 April 1887 [= 21 April 1887 NS] at the type locality (RADDE 1899, see also RADDE & WALTER 1890, BIANKI 1917, STRELKOV et al. 1978).

TYPE LOCALITY. “Tahta-Bazar” (RADDE & WALTER 1890, STRELKOV et al. 1978), i.e. Tagtabazar, Mary Province, Turkmenistan; 35° 58' N, 62° 54' E.

NOW. *Barbastella darjelingensis* (Hodgson, 1855). See KUZÁKIN (1950), STRELKOV (1963), and BENDA et al. (2008).

REMARKS. OGNEV (1928) and KUZÁKIN (1934) suggested that this name is a nomen nudum, but BIANKI (1917: 75) specified that this is a “large form” [of *Barbastella*]. This description, although almost useless, is sufficient for making the name available for nomenclatural purposes (see ICZN 1999). Although both BIANKI’s names, *blanfordi* and *walteri*, were proposed in one paragraph on the same page in BIANKI’s (1917) paper (see also Appendix), some authors gave the year of publication as 1917 for *blanfordi* and, incorrectly, 1916 for *walteri* (e.g. RYBERG 1949: 93; BORISENKO & PAVLINOVA 1995: 102; SIMMONS 2005: 480). For the correct date of publication of BIANKI’s (1917) paper see under *Barbastella blanfordi* Bianki.

***Barbastella formosanus* Lin, Zheng et Maeda**

Barbastella formosanus Lin, Zheng et Maeda in LIN et al. 1997: 71. [Manuscript name]
Barbasoella formosanus Lin, Zheng et Maeda: WANG 2003: 53. [Genus name misspelled]

REMARKS. This is a manuscript name proposed by LIN, ZHENG & MAEDA and listed by LIN et al. (1997) and WANG (2003). ZHANG et al. (2007: 1394) observed that it is a nomen nudum. We concur with his opinion, because the only relevant in LIN et al. (1997) reads: “This species was first recorded in Meifeng at an altitude of 2160 m in the Nantou County in 1995. It is a new endemic forest species distributed in the mountains at medium and high altitudes. In a paper submitted by Liang-Kong Lin, Hsi-Chi Zheng and Kishio Maeda, for press, the bat was temporarily named [*Barbastella*] *formosanus*, the Formosan barbastelle.”

***Barbastella beijingensis* Zhang, Han, Jones, Lin, Zhang, Zhu, Huang et Zhang**

Barbastella beijingensis Zhang, Han, Jones, Lin, Zhang, Zhu, Huang et Zhang, 2007: 1397.

HOLOTYPE. IOZB BRG00054, adult male, collected by Jie MA and Li-Biao ZHANG on 25 September 2003 at the type locality (ZHANG et al. 2007).

TYPE LOCALITY. San-Liu-Shui village, Fangshan District, Beijing, China; 30° 43' N, 115° 45' E.

NOW. *Barbastella beijingensis* Zhang, Han, Jones, Lin, Zhang, Zhu, Huang et Zhang, 2007.

SOUHRN

Z Asie jsou k dispozici následující jména náležející rodu *Barbastella* použitelná pro nomenklatorické účely: *Vespertilio leucomelas* Cretzschmar, 1830, *Plecotus darjelingensis* Hodgson, 1855, *Barbastella caspica* Satunin, 1908, *Barbastella blanfordi* Bianki, 1917, *Barbastella walteri* Bianki, 1917 a *Barbastella beijingensis* Zhang, Han, Jones, Lin, Zhang, Zhu, Huang et Zhang, 2007. Pro všechna tato jména jsou v příspěvku uvedeny typové série a typové lokality. Naopak jméno *Barbastellus dargelinensis* Dobson, 1875 nebylo vytvořeno jako nové jméno a jeho formy *dargelinensis*, *darjelinensis* a *darjilingensis* použité

DOBSONEM (1875, 1876, 1879) v kombinaci s rodovými jmény *Barbastellus* Gray, 1838 nebo *Synotus* Keyserling et Blasius, 1839 jsou pouze nesprávným pozdějším způsobem psaní HODGSONOVA (1855) jména *darjilingensis*, a tudíž nejsou použitelná pro nomenklatorické účely.

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APPENDIX

BIANKI'S (1917) text on the genus *Barbastella*

ORIGINAL TEXT (BIANKI 1917: 74–75). “Формы рода *Barbastella* распадаются на две группы; у одной из них, куда относиться только *B. barbastellus*, несколько выше середины наружного края уха имеется небольшая, но резко выступающая округлая лопастинка, которой нет и следа у представителей другой группы. У описанного Сатуниным *B. barbastella caspica* нет этой лопастинки, а потому непонятно, почему авторь считает эту форму за подвидь *B. barbastella*. Типом группы безь лопастинки является ‘*Plecotus darjelingensis* Hodgs.’ Horsfield. 1855 (Ann. & Mag. Nat. Hist., (2) XVI, 103), но название *darjelingensis* не может остаться за нею. Hodgson только назваль форму, описалъ ее впервые (l. c.) Horsfield, а онъ говоритъ ‘Nearly allied to the former {т. е. *Plecotus homochrous* Hodgs., J. As. Soc. Bengal, XVI, p. 894}, but considered distinct by Mr Hodgson. The dimensions are the same in all points; the colour is deeper, inclining to blackish ...’ Изъ этого ясно, что первоначально подь *darjelingensis* разумелась форма рода *Plecotus*, а никакъ не рода *Barbastella*, размеры котораго, хотя бы ушей, никакъ не могутъ быть тождественными съ размерами какого бы то ни было *Plecotus*. Это подтверждается еще и темъ, что въ описываемой Horsfield’омъ коллекци Hodgson’а былъ и *Barbastella*, несколькими строками выше названный ‘*Barbastella daubentonii*’, о которомъ Horsfield говоритъ: ‘Examined by R. F. Tomes, Esq., who considers it identical with the European species, although somewhat darker in colour from its preservation in spirits’. Какимъ образомъ *Plecotus darjelingensis* Hodgson (lege Horsfield) превратился у Dobson’а (Monogr. As. Chiropt., p. 86, 1876; Cat. Chiropt. Brit. Mus., p. 177, 1878) въ *Synotis darjelingensis* – совершенно непонятно. Вероятнее всего, что въ British Museum попалъ изъ East Indian Company Museum дублетъ *Synotis*, въ который была по ошибке вложена этикетка *Plecotus darjelingensis*. Ведь принялъ же Dobson целый рядъ индйскихъ формъ (*Vespertilio africanus* = *Myotis blythi*, *V-lio megalopus* = *Myotis megalopus*) за африканскія. Такимъ образомъ *B. darjelingensis* Dobson’а и др. авторовъ (non ‘Hdgs.’ f. Horsfield) нуждается въ названіи и я крещу его въ *Barbastella blanfordi*, ном. emend. – Кроме *B. blanfordi*, распространеннаго отъ Кашгаріи и южныхъ отроговъ Каракорума (Gilgit) по Гималаямъ до Си-чуани, къ безлопастной группе относятся еще три формы, изъ которыхъ две продолжаютъ все еще смешиваться одна съ *B. barbastella*, другая съ *B. blanfordi*. Во-первыхъ уже одного взгляда на рисунокъ *Vespertilio leucomelas* Cretschm. (Rüppel’s Atlas Reis. N. Afr., p. 73, tab. 28, fig. 6) изъ Каменистой Аравіи достаточно, чтобы сказать, что форма эта, не имеющая лопастинокъ на ухе, не можетъ относиться къ *B. barbastella*, какъ толкуеть ее Dobson (1878), а въ новейшее время de Winton (Zool. Egypt., Mamm. p. 132); по всей вероятности это вполне самостоятельная мелкая форма весьма характерной темной сверху окраски. Во-вторыхъ Закаспійской области и ю.-з. части Туркестана свойственна крупная форма, которую Сатунин определялъ по экземпляру, добытому Радде и Вальтеромъ въ Тахта-базаре, за ‘*darjelingensis*’ т. е. за *B. blanfordi*. Она также нуждается въ названіи и я называю ее *B. walteri* subsp. nov. Наконецъ третья форма – это уже упомянутый выше *B. caspica* Satun. Въ противоположность *B. leucomelas* последнія две формы – *B. walteri* и *B. caspica* – представляютъ повидимому лишь подвиды *B. blanfordi*.”

TRANSLATION (our comments are added in brackets). “The forms of the genus *Barbastella* [inhabiting the Russian Empire] fall into two groups; in one of them, which includes only *B. barbastella*, a small but distinct, rounded protrusion is present above the center of the outer ear margin, of which no trace is present in the representatives of the second group. Such a protrusion is absent in *B. barbastella caspica* described by Satunin, and it is therefore not clear, why that author regards this form as a subspecies of *B. barbastella*. Typical for the group without the projection is ‘*Plecotus darjelingensis* Hodgs.’ Horsfield. 1855 (Ann. & Mag. Nat. Hist., (2) XVI, 103 [= HORSFIELD 1855]), but the name *darjelingensis* cannot be used for it. Hodgson only named the form, but Horsfield (l. c.) described it, and he says ‘Nearly allied to the former {i.e. *Plecotus homochrous* Hodgs., J. As. Soc. Bengal, XVI, p. 894 [= HODGSON 1847]}, but considered distinct by Mr Hodgson. The dimensions are the same in all points; the colour is deeper, inclining to blackish ...’. It is clear from this, that *darjelingensis* was originally applied to a form of the

genus *Plecotus*, and in no circumstances one of the genus *Barbastella*, the measurements of which, incl. those of ears, could never correspond with the measurements of any *Plecotus* form. This is also confirmed by the fact, that the Hodgson's collection mentioned by Horsfield also contained a *Barbastella*, some lines below named as '*Barbastella daubentonii*', about which Horsfield says: 'Examined by R. F. Tomes, Esq., who considers it identical with the European species, although somewhat darker in colour from its preservation in spirits'. Why *Plecotus darjelingensis* Hodgson (lege Horsfield) was changed by Dobson (Monogr. As. Chiropt., p. 86, 1876; Cat. Chiropt. Brit. Mus., p. 177, 1878 [= DOBSON 1876, 1878]) to *Synotus darjelingensis* – is entirely unclear. Most probably, a doublet of *Synotus* came in the British Museum from the East Indian Museum, which was erroneously labeled as *Plecotus darjelingensis*. To be sure, Dobson has mistaken a number of Indian forms (*Vespertilio africanus* = *Myotis blythi*, *Vespertilio megalopus* = *Myotis megalopus*) for African ones. Therefore, the *B. darjelingensis* of Dobson and other authors (non 'Hdgs.' f. Horsfield) needs a name and I christen it *Barbastella blanfordi*, nom. emend. – In addition to *B. blanfordi*, which is distributed from Kashgaria and the southern slopes of Karakorum (Gilgit) to the Himalayas and to Sichuan, three forms belong to the group without the [ear] projection, two of which still used to be confused, one with *B. barbastella*, and the other one with *B. blanfordi*. First, a glance at the picture of *Vespertilio leucomelas* Cretschm. (Rüppel's Atlas Reis. N. Afr., p. 73, tab. 28, fig. 6 [= CRETZSCHMAR 1830]) from the Arabia Petraea is clearly sufficient for concluding that this form, which has no projection on its ear, cannot belong to *B. barbastella*, as suggested by Dobson (1878) and recently also de Winton (Zool. Egypt., Mamm. p. 132 [= DE WINTON in ANDERSON 1902]); with all probability, it is a separate small form characterized by dark dorsal coloration. Second, a separate large form inhabits the Transcaspian Province and south-western parts of Turkestan, which was identified by Satunin on the basis of a specimen collected by Radde and Walter in Tahta-Bazar, as '*darjelingensis*', i.e. *blanfordi*. It also needs a name and I name it *B. walteri* subsp. nov. Finally, the third form is the above mentioned *B. caspica* Satun. Unlike *B. leucomelas*, the latter two forms – *B. walteri* and *B. caspica* – obviously represent only subspecies of *B. blanfordi*."