

5th Session of the Meeting of Parties

Ljubljana, Slovenia, 4 – 6 September 2006

Review of Species to be listed on the Annex to the Agreement

(prepared by A.M. Hutson)



With reference to Resolution 3.7 (Doc.EUROBATS.MoP3.12.Rev.4), the attention of the Advisory Committee is drawn to the following matters, which may affect the Annex of bat species occurring in Europe to which the Agreement applies. The Advisory Committee may wish to propose amendments to the Annex at the next MoP.

This updates similar documents produced for MoP4 (EUROBATS.MoP4.Record. Annex11, Inf.EUROBATS.MoP4.13).

Doc.EUROBATS.AC11.6 presents a list of species revised in accordance with amendments adopted at MoP4 (Sofia, 2003).

This report represents the opinions of members of an 'Advisory Panel' established for the purpose of assessing potential changes to the Annex of species. The panel comprises Stéphane Aulagnier (France), Gabor Csorba (Hungary), Ivan Horáček (Czech Republic), Sergei Kruskop (Russian Federation), Nancy Simmons (USA) and Friederike Spitzenberger (Austria) and co-ordinated by Tony Hutson (UK). This panel is not 'official' in any way, but as 'ex-officio' Peter Lina (chairman of EUROBATS Advisory Committee) and Andreas Streit (Secretariat to EUROBATS) are also circulated for information and comment.

1. Mammal Species of the World. This is regarded by IUCN-The World Conservation Union and CMS as the standard list of mammals. A revised (3rd) edition (with the bats compiled by Nancy Simmons of the American Museum of Natural History) was published in early 2006 (Simmons, 2005).

Recommendation: unless there is over-riding reason, the Agreement should (in line with IUCN and CMS policy) adopt at least the generic (and higher) classification proposed in this work, but may adopt changes to the species list as appropriate.

2. *Myotis punicus* Felten, 1977 (in Felton, Spitzenberger & Storch, 1977)

Castella et al. (2000) suggested that *Myotis myotis* in Morocco should be regarded as a separate species, *M. cf. punicus* (described as a subspecies of *M. blythii* (sic)) and that the populations on Corsica and Sardinia should also be identified with *M. cf. punicus*. They reserved commitment to this classification (and its nomenclature) pending further studies. Subsequent authors have accepted the separation of this form as a species. A number of authors (including Simmons, 2005) have accepted the name *punicus* for this species and the name seems to have become established in the literature.

Recommendation: accept *Myotis punicus* as the name for the species.

3. *Myotis oxygnathus* (Monticelli, 1885)

Simmons (2005) accepted the suggestion of Ruedi & Mayer (2001) that *M. oxygnathus* may be a species separate from *M. blythii* and hence that the name *oxygnathus* would apply to the European populations. This needs further study, including to investigate the validity of other forms, such as *omari*, which could also influence the nomenclature of the species in Europe.

Recommendation: Retain the name *Myotis blythii* for the European populations pending further studies.

4. *Myotis aurascens* Kuzyakin, 1935

Simmons (2005) includes *M. aurascens* as a subspecies of *Myotis mystacinus*. The opinion of European workers is that these should be regarded as separate species.

Recommendation. Retain *Myotis aurascens* as a separate species.

5. *Eptesicus bottae/anatolicus*

Benda (in litt.) advises that he is currently involved in studies that will support the separation of *Eptesicus bottae* (Peters, 1869) and *E. anatolicus* Felten, 1971 as species, both on morphological and DNA evidence.

Recommendation: await publication of evidence of separation of the two species.

6. *Plecotus macrobullaris* Kuzyakin, 1965

Spitzenberger et al. (2003) identified *Plecotus macrobullaris* Kuzyakin 1965 as conspecific with *P. alpinus* Kiefer & Veith 2002 and *P. microdontus* Spitzenberger 2002. As the older name, *macrobullaris* should be used for this species. Garin et al. (2003) and subsequent authors have similarly considered *macrobullaris* the valid name for this form. Note that Spitzenberger et al. (2003) suggest the possibility of a division into an

eastern and western subspecies and that this is more formally adopted (as *M. m. macrobullaris* and *M. m. alpinus* respectively) by Benda et al. (2004). On the basis of further investigation of more material, Spitzenberger (in litt.) no longer supports this view.

Recommendation: accept the name *macrobullaris* Kuzyakin 1965 for *P. alpinus*.

7. *Plecotus kolombatovici* Dulic, 1980

Juste et al. (2004) drew attention to the close relationship of *Plecotus kolombatovici* and *P. teneriffae* Barret-Hamilton, 1907 and proposed that they probably comprised a single species (*P. teneriffae*) occurring from the Canary Islands, through North Africa and the Balkans and eastwards. Benda et al. (2004) supported the conspecificity and separated the species into subspecies *teneriffae* from the Canary Islands, *gaisleri* from Libya, a possibly separate subspecies most closely related to *gaisleri* from Morocco westwards through North Africa to Libya, and *kolombatovici* from the Balkans through to Turkey. Both papers recognise *kolombatovici* as relatively distinct.

Spitzenberger et. Al. (2006) propose that *kolombatovici* (Europe and North Africa) should be regarded as a species separate from *teneriffae* (Canary Islands only). Other members of the panel (including Petr Benda) also feel that the question requires further elucidation. Note also that Dietz & von Helversen (2004) suggest that both *kolombatovici* and *gaisleri* occur on the Italian island of Pantelleria, but give no further data.

Recommendation: *Plecotus kolombatovici* should be retained in preference to a change to *P. teneriffae* pending further studies.

8. Family/ Subfamily for *Miniopterus schreibersii* (Kuhl, 1817)

There have been a number of investigations of the higher classification of bats, including parts of the family Vespertilionidae. This has included the proposal by several authors to raise the status of the subfamily Miniopterinae to that of a family Miniopteridae (e.g. Mein & Tupinier, 1977; Hooper & van den Bussche, 2003; Hutcheon & Kirsch, 2004) while others have retained it as a subfamily. Simmons (2005) argues that more comprehensive analyses that include molecular and morphological data from all families are needed before a number of such changes are adopted. She (op.cit.) retains the genus *Miniopterus* in the subfamily Miniopterinae of the family Vespertilionidae.

Recommendation: retain the genus *Miniopterus* in the subfamily Miniopterinae of the family Vespertilionidae.

9. Annotations to Doc.EUROBATS.AC11.6

Simmons (2005) and others have implicated a few corrections of spelling, dates of description, or use of brackets to the Annex as published in the above document.

Taphozous nudiventris Cretzschmar, 1830. Published in that combination and so brackets should not be used.

Rhinolophus blasii Peters, 1866. Simmons (2005) gives 1867 as the date for this work. Given as 1866 in Ellerman & Morrison-Scott (1951), Corbet (1978) and Koopman (1993) and so left as 1866 pending further clarification.

Barbastella leucomelas (Cretzschmar, 1826). The date should be changed from 1830 to 1826 in line with other publications.

Myotis aurascens Kuzyakin, 1935. The spelling of Kuzyakin should be changed from Kusjakin.

Myotis hajastanicus Argyropulo, 1939. Published in that combination and so brackets should not be used.

Myotis nipalensis (Dobson, 1871). Simmons (2005) removes the brackets from the author and date of this species, but the original combination was *Vespertilio nipalensis* and therefore the author and date should remain in brackets, as in the Eurobats Annex of species.

Otonycteris hemprichii Peters, 1859. Published in that combination and so brackets should not be used.

Recommendation: make appropriate changes to *T. nudiventris*, *B. leucomelas*, *M. aurascens*, *M. hajastanicus*, *O. hemprichii*.

References

Benda, P., Kiefer, A., Hanak, V. & Veith, M. 2004. Systematic status of African populations of long-eared bats, genus *Plecotus* (Mammalia: Chiroptera). *Folia Zoologica* 53 (Monograph 1): 1-47.

Corbet, G.B. 1978. *The Mammals of the Palearctic Region: A Taxonomic Review*. British Museum (Natural History), London. 314pp.

- Dietz, C. & von Helversen, O. 2004. *Illustrated identification key to the bats of Europe*. Electronic publication, Version1, First released 15.12.2004, © Dietz & von Helversen.
- Ellerman, J.R. & Morrison-Scott, T.C.S. 1951. *Checklist of Palaearctic and Indian Mammals 1758-1946*. British Museum (Natural History), London. 810pp.
- Garin, I.J.L.G-M., Aihartza, J.R., Goiti, U. & Juste, J. 2003. Presence of *Plecotus macrobullaris* (Chiroptera: Vespertilionidae) in the Pyrenees. *Acta Chiropterologica* 5: 243-250.
- Hoofer, S.R. & van den Bussche, R.A. 2003. Molecular phylogenetics of the chiropteran family Vespertilionidae. *Acta Chiropterologica* 5 (supplement): 1-63.
- Hutcheon, J.M. & Kirsch, J.A.W. 2004. Camping in a different tree: Results of molecular systematic studies of bats using DNADNA hybridization. *Journal of Mammalian Evolution* 11(1): 17-44.
- Juste, J., Ibanez, C., Munoz, J., Trujillo, D., Benda, P., Karatas, A. & Ruedi, M. 2004. Mitochondrial phylogeography of the long-eared bats (*Plecotus*) in the Mediterranean Palaearctic and Atlantic Islands. *Molecular Phylogenetics and Evolution* 31: 1114-1126.
- Koopman, K.F. 1993. Order Chiroptera. Pp 137-241 in Wilson, D.E. & Reeder, D.M., *Mammal Species of the World; A Taxonomic and Geographical Reference (second edition)*. Smithsonian Institution, Washington.
- Mein, P. & Tupinier, Y. 1977. Formule dentaire et position systematique de Minoptere (Mammalia, Chiroptera). *Mammalia* 41(2): 207-211.
- Simmons, N.B. 2005. Order Chiroptera. Pp 312-529 in Wilson, D.E. & Reeder, D.M., *Mammal Species of the World; A Taxonomic and Geographical Reference (third edition)*. John Hopkins University Press, Baltimore. 2142pp.
- Spitzenberger, F., Strelkov, P. & Haring, E. 2003. Morphology and mitochondrial DNA sequences show that *Plecotus alpinus* Kiefer & Veith, 2002 and *Plecotus microdontus* Spitzenberger, 2002 are synonyms of *Plecotus macrobullaris* Kuzjakin, 1965. *Natura Croatica* 12(2): 39-53.
- Spitzenberger, F., Strelkov, P.P., Winkler, H. & Haring, E. 2006. A preliminary revision of the genus *Plecotus* (Chiroptera, Vespertilionidae) based on genetic and morphological results. *Zoologica Scripta* 35: 187-230.

Summary

The balance of opinion of the panel would suggest the following amendments to the EUROBATS Annex of species occurring in the Agreement area.

1. Policy.

1.1. Unless there is over-riding reason, the Agreement should (in line with IUCN and CMS policy) adopt at least the generic (and higher) classification proposed in Simons (2005), but may adopt changes to the species list as appropriate.

2. Changes and additions

2.1. accept *Myotis punicus* Felten 1977 as the name for the species.

2.2. *Plecotus macrobullaris* Kuzyakin 1965 should replace *P. alpinus*.

3. Corrections to the Annex presented in Doc.EUROBATS.AC11.6

3.1. *Taphozous nudiventris* Cretzschmar, 1830; *Myotis hajastanicus* Argyropulo, 1939; *Otonycteris hemprichii* Peters, 1859. All described in the current combination and so brackets should not be used.

3.2. *Rhinolophus blasii* Peters, 1866. Simmons (2005) gives 1867 as the date for this work. Given as 1866 in Ellerman & Morrison-Scott (1951) and Corbet (1978) and so left as 1866 pending further clarification.

3.3. *Barbastella leucomelas* (Cretzschmar, 1826). The date should be changed from 1830 to 1826 in line with other publications.

3.4. *Myotis aurascens* Kuzyakin, 1935. The spelling of Kuzyakin should be changed from Kusjakin.

4. Potential changes to be deferred pending further developments

4.1. European populations of *M.blythii* may be recognised as a separate species.

4.2. The status of *P. kolombatovici* may need further clarification.

4.3. (Part of) the European populations of *Eptesicus bottae* may be recognised as a separate species, *anatolicus*.

4.4. The subfamily Miniopterinae may be raised to a family Miniopteridae.

Agreed changes will be incorporated into a Resolution for adoption by the 5th Session of the Meeting of Parties to the Agreement (EUROBATS). For the draft Resolution see Doc.EUROBATS.AC11.21.