

Changes from the WA Checklist 2015 (updated Oct 2015)

Mammals

(compiled by K. Travouillon)

Two new taxonomic levels have been added, 'suborder' and 'subfamily', which has rearranged several taxa in the list. The taxonomic listing follows revisions made by Jackson and Groves (2015) in their latest book "Taxonomy of the Mammals of Australia". Previously, species present in WA were listed followed by a list of subspecies present in WA. Here, the subspecies are listed without the 'species' presence listing above it.

Additions of subspecies based on Jackson and Groves (2015)

Based on Jackson and Groves (2015), the following recognised subspecies were added:

Balaenoptera borealis schlegelii
Conilurus penicillatus penicillatus
Chaerephon jobensis colonicus
Dasyurus geoffroii fortis
Delphinus delphis delphis
Isodon macrourus macrourus
Globicephala melas edwardii
Lagostrophus fasciatus fasciatus
Macroglossus minimus pygmaeus
Macropus fuliginosus melanops
Mesembriomys gouldii gouldii
Myrmecobius fasciatus fasciatus
Notomys alexis alexis
Onychogalea unguifera unguifera
Perameles bougainville bougainville
Petrogale brachyotis brachyotis
Phascogale tapoatafa wambenger
Phascogale tapoatafa kimberleyensis
Pseudomys albocinereus albocinereus
Pseudomys albocinereus squalorum
Pseudomys nanus nanus
Pseudomys nanus ferculinus
Pteropus alecto gouldii
Rattus fuscipes fuscipes
Rattus tunneyi tunneyi
Saccolaimus saccolaimus nudicluniatus
Sminthopsis macroura froggatti
Sminthopsis macroura stalkerii
Stennella attenuate attenuate
Stennella longirostris roseiventris
Tachyglossus aculeatus acanthion
Trichosurus vulpecula hypoleucus
Tursiops truncates truncates

Additions of new *Planigale* species and additional undescribed subspecies of *Bettongia lesueur*, *Petrogale lateralis* and *Rhinonicteris aurantia*

Painter *et al.*, 1995 and Blacket *et al.* 2000 reported two new species of *Planigale* in the Pilbara. The two new species are currently being described by Aplin *et al.* in prep. Several unnamed subspecies of marsupials have also been reported, including the Barrow Island *Bettongia lesueur* (Clayton *et al.* 2006), the West Kimberley form and MacDonnell Range form of *Petrogale lateralis* (Briscoe *et al.* 1982), and the Pilbara *Rhinonicteris aurantia* (Armstrong, 2006).

Painter, J., Krajewski, C., and Westerman, M. (1995). Molecular phylogeny of the marsupial genus *Planigale* (Dasyuridae). *Journal of Mammalogy* **76**: 406–413.

Blacket, M.J., Adams, M. Krajewski, C., and Westerman, M. (2000). Genetic variation within the dasyurid marsupial genus *Planigale*. *Australian Journal of Zoology* **48**: 443–459.

Clayton, M. Wombery, J.C., Mason, I.J., Chesser, R.T., and Wells, A. (2006). *CSIRO List of Australian Vertebrates: A Reference with Conservation Status*. CSIRO Publishing, Melbourne.

Briscoe, D.A., Calaby, J.H., Close, R.L., Maynes, G.M., Murtagh, C.E., and Sharman, G.B. (1982). Isolation, introgression and genetic variation in rock-wallabies. Pp. 73–87, in RH Groves & WDL Ride (eds.) *Species at Risk: Research in Australia*. Australian Academy of Science, Canberra.

Armstrong, K.N. (2006). Resolving the correct nomenclature of the orange leaf-nosed bat *Rhinonicteris aurantia* (Gray, 1845) (Hipposideridae). *Australian Mammalogy* **28**: 125–130.

Revision of *Sminthopsis griseoventer*

Jackson and Groves (2015) reviewed the history of the taxonomy of *Sminthopsis griseoventer* and concluded that is a junior synonym of *Sminthopsis fuliginosus fuliginosus*.

Status of the Golden bandicoot

The Golden bandicoot, which was listed as *Isoodon obesulus auratus*, has been recognised as a full species for quite some time, *Isoodon auratus*, and supported by molecular work (Westerman *et al.* 2012). There are two subspecies, one from the Kimberley, *Isoodon auratus auratus*, and one from Barrow Island, *Isoodon auratus barrowensis*.

Westerman, M., Kear, B.P., Aplin, K., Meredith, R.W., Emerling, C. and Springer, M.S. (2012) Phylogenetic relationships of living and recently extinct bandicoots based on nuclear and mitochondrial DNA sequences. *Molecular Phylogenetics and Evolution* **62**: 97–108.

Addition of *Bettongia anhydra*

This species was originally described from a skull from the Northern Territory. A recent study showed that it used to occur in the Nullarbor region.

McDowell, M., Haouchar, D., Aplin, K., Bunce, M., Baynes, A. and Prideaux, G.J. (2015). Morphological and molecular evidence supports specific recognition of the recently extinct *Bettongia anhydra* (Marsupialia: Macropodidae) *Journal of Mammalogy* **96**(2): 287–296.

Revision of *Macropus*

Jackson and Groves (2015) reviewed the molecular evidence presented by Meredith *et al.* 2008 and Phillips *et al.* 2013, and concluded that *Macropus* should be split into its former three genera, *Osphranter*, *Notamacropus* and *Macropus*.

Meredith, R.W., Westerman, M. and Springer, M.S. (2008). A phylogeny and timescale for the living genera of kangaroo and kin (Macropodiformes: Marsupialia) based on nuclear DNA sequences. *Australian Journal of Zoology* **56**: 395–410.

Phillips, M.J., Haouchar, D., Pratt, R.C., Gibb, G.C. and Bunce, M. (2013). Inferring kangaroo phylogeny from incongruent nuclear and mitochondrial genes. *PLoS ONE* **2**(2): 1–12.

Addition of new species of *Notomys* and *Pseudomys*

Start *et al.* (2011) identified two new species of *Notomys* and one new species of *Pseudomys* from subfossils from the south-west Kimberley. These are yet unnamed but represent recently extinct species.

Start, A.N., Burbidge, A., McDowell, M.C. and McKenzie, N. (2011). The status of non-volant mammals along a rainfall gradient in the south-west Kimberley, Western Australia. *Australian Mammalogy* **34**: 36–48.

New family *Rhinonycteridae*

Foley *et al.* 2014 elevated the subfamily *Rhinonycterinae* to family level, for species of *Rhinonycteris* and relatives.

Foley, N.M., Thong, V.D., Soisook, P., Goodman, S.M., Armstrong, K.N., Jacobs, D.S., Puechmaille, S.J. and Teeling, E.C. (2014). How and why overcome the impediments to resolution: Lessons from rhinolophid and hipposiderid bats. *Molecular Biology Evolution* **32**: 313–333.

Change of name for *Tadarida australis*

Reardon (2009) suggested that *Tadarida* does not occur in Australia, suggesting the change of name to *Austronomus australis*, a name recognised previously.

Reardon, T. (1999). Nomenclature of *Tadarida australis* (Gray 1838). *Australasian Bat Society Newsletter* **12**: 22–24.

Revision of *Mormopterus*

Reardon *et al.* 2014 described new subgenera for the Australian *Mormopterus*. As Jackson and Groves (2015) do not recognise subgenera, these have been elevated to full genus. These include *Micronomus norfolkensis*, *Setirostris eleryi*, and seven species of *Ozimops*.

Reardon, T.B., McKenzie, N.L., Cooper, S.J.B., Appleton, B., Carthew, S. and Adams, M. (2014). A molecular and morphological investigation of species

boundaries and phylogenetic relationships in Australian free-tailed bats *Mormopterus* (Chiroptera: Molossidae). *Australian Journal of Zoology* **62**: 109–136.

Revision of *Miniopterus schreibersii*

Molecular studies by Appleton *et al.* (2004) and Tian *et al.* (2004) suggested that the Australian species of *Miniopterus schreibersii*, *Miniopterus schreibersii oriana* should be elevated to its own species, *Miniopterus oriana oriana*.

Appleton, B. R., McKenzie, J. A. and Christidis, L. (2004). Molecular systematics and biogeography of the bent-wing bat complex *Miniopterus schreibersii* (Kuhl, 1817) (Chiroptera: Vespertilionidae). *Molecular Phylogenetics and Evolution* **31**: 431–439.

Tian, L., Liang, B., Maeda, K., Metzner and W., Zhang, S. (2004). Molecular studies on the classification of *Miniopterus schreibersii* (Chiroptera: Vespertilionidae) inferred from mitochondrial cytochrome b sequences. *Folia Zoologica* **53**: 303–311.