



<http://dx.doi.org/10.11646/zootaxa.3904.2.7>

<http://zoobank.org/urn:lsid:zoobank.org:pub:BA40311E-3E6C-46BF-9A69-86C254367457>

## Taxonomic status of *Podabrus albocaudatus* Krefft, 1872 and declaration of *Sminthopsis granulipes* Troughton, 1932 (Marsupialia: Dasyuridae) as a protected name for the White-tailed Dunnart from Western Australia

HARRY PARNABY, SANDY INGLEBY & ANJA DIVLJAN

Mammal Section, Australian Museum, 6 College Street, Sydney, NSW 2010, Australia.

E-mail: [parn@ozemail.com.au](mailto:parn@ozemail.com.au); [Sandy.Ingleby@austmus.gov.au](mailto:Sandy.Ingleby@austmus.gov.au); [Anja.Divljan@austmus.gov.au](mailto:Anja.Divljan@austmus.gov.au)

### Abstract

The name *Sminthopsis granulipes* Troughton, 1932 has universally and uncontroversially been used for the White-tailed Dunnart since its description in 1932. We regard the forgotten name *Podabrus albocaudatus* Krefft, 1872 to be an available name and demonstrate that it is a disused, neglected senior synonym of *S. granulipes*. The holotype of *granulipes* Troughton is also likely to be the holotype of Krefft's *albocaudatus* and therefore an objective synonym. Consequently, *Sminthopsis granulipes* Troughton, 1932 is declared a *nomen protectum* and *Podabrus albocaudatus* Krefft, 1872 a *nomen oblitum*, as required by Article 23.9.2 of the International Code of Zoological Nomenclature. This action in no way alters current use of *Sminthopsis granulipes* for the White-tailed Dunnart but is required to ensure continued nomenclatural stability.

**Key words:** nomenclature, dasyurid, *nomen protectum*, *nomen oblitum*, Gerard Krefft, Ellis Troughton, George Maxwell, Albany, King George Sound, holotype

### Introduction

Maintaining the stability of zoological nomenclature is a fundamental objective of the International Code of Zoological Nomenclature (ICZN 1999), hereafter the *Code*. The purpose of this note is to ensure continued nomenclatural stability of *Sminthopsis granulipes* Troughton, 1932 as the name applied to the White-tailed Dunnart, a small dasyurid marsupial restricted to south-western Western Australia (McKenzie & Kitchener 2008). Our aim is to foreclose the possibility of re-instatement of *Podabrus albocaudatus* Krefft, 1872—a disused, overlooked or ignored name that we demonstrate, apparently for the first time, to be a senior synonym of *Sminthopsis granulipes*. Although the name *Sminthopsis granulipes* has universally, and uncontroversially been used for the White-tailed Dunnart since its description in 1932, the need for this note stems from the requirements of Article 23.9.2 of the *Code*. It states that, provided certain requirements are met, an author who discovers that a name is an unused, senior synonym of an established younger name, should cite the two names together and state explicitly that the younger name is valid, by declaring it a *nomen protectum*, and thereby prevent future displacement of the name by use of the senior name, which is declared a *nomen oblitum*.

Troughton (1932) based his description of *Sminthopsis granulipes* on a single specimen collected in the 19<sup>th</sup> century that he found in the “old collection” of the Australian Museum (AM), Sydney. To our knowledge, *Sminthopsis granulipes* Troughton, 1932 has been universally applied to this taxon ever since. Troughton (1941) reported that two further specimens found in the collection of the Western Australian Museum, Perth, conformed to his original diagnostic criteria for the species. The White-tailed Dunnart was subsequently known from only ten specimens (Frith 1973) and was considered to be rare until biological surveys that commenced during the 1970s resulted in a revised status of common but localized (Kitchener 1983).

During the preparation of a paper on the mammal type specimens in the Australian Museum by the present authors, we became aware that Troughton's holotype of *granulipes* is most probably also the holotype of *Podabrus*

*The Mammals of Australia*. 3<sup>rd</sup> edition. Reed New Holland, Sydney, pp. 140–141.

- Mahoney, J.A. & Ride, W.D.L. (1975) Index to the genera and species of fossil Mammalia described from Australia and New Guinea between 1838 and 1968 (including citations of type species and primary type specimens). *Western Australian Museum, Special Publication* 6, 1–250. Available from: <http://museum.wa.gov.au/research/records-supplements/special-publications/> (accessed 4 August 2014)
- Mahoney, J.A. & Ride, W.D.L. (1988) Dasyuridae. In: Walton, D.W. (Ed.), *Zoological Catalogue of Australia*. Vol. 5. *Mammalia*. Australian Government Publishing Service, Canberra, pp. 14–33.
- Mueller, F. von. (1880) The late Mr Maxwell. *Gardeners Chronicle (new series)* 13, 433. [3 April]. Available from: <http://biodiversitylibrary.org/page/16491319/> (accessed 4 August 2014)
- Scott, A.W. (1875) Report of the Trustee's of the Australian Museum, for the year ending 31<sup>st</sup> December, 1874. Thomas Richards, Government Printer, Sydney, 57 pp. Available from: <http://australianmuseum.net.au/document/Annual-Report-1874/> (accessed 9 July 2014)
- Strahan, R. (Ed.) (1979) *Rare and Curious Specimens: an Illustrated History of the Australian Museum, 1827–1979*. The Australian Museum, Sydney, 173 pp. Available from: <http://web1.australianmuseum.net.au/document/Preview?assetID=27103> (accessed 9 July 2014)
- Tate, G.H.H. (1947) Results of the Archbold Expeditions. No. 56. On the anatomy and classification of the Dasyuridae (Marsupialia). *Bulletin of the American Museum of Natural History*, 88 (3), 102–155. Available from: <http://hdl.handle.net/2246/1836> (accessed 9 July 2014)
- Thomas, O. (1887) On the specimens of *Phascogale* in the Museo Civico, Genoa, with notes on the allied species of the genus. *Annali del Museo Civico di Storia Naturale di Genova (series 2)*, 4, 502–511. Available from: <http://biodiversitylibrary.org/page/29872406/> (accessed 9 July 2014)
- Thomas, O. (1888) *Catalogue of the Marsupialia and Monotremata in the Collection of the British Museum (Natural History)*. British Museum (Natural History), London, xiii + 401 pp.  
<http://dx.doi.org/10.5962/bhl.title.56181>
- Troughton, E.L.G. (1932) A new species of fat-tailed marsupial mouse, and the status of *Antechinus froggatti* Ramsay. *Records of the Australian Museum*, 18 (6), 349–354.  
<http://dx.doi.org/10.3853/j.0067-1975.18.1932.738>
- Troughton, E.[L.G.] (1941) *Furred Animals of Australia*. Angus & Robertson, Sydney, xxvii + 374 pp.
- Troughton, E.[L.G.] (1965) A review of the marsupial genus *Sminthopsis* (Phascogalinae) and diagnoses of new forms. *Proceedings of the Linnean Society of New South Wales*, 89 (3), 307–321. Available from: <http://biodiversitylibrary.org/page/34904545> (accessed 9 July 2014)
- Westwood, J.O. (1840) *An Introduction to the Modern Classification of Insects: Founded on the Natural Habits and Corresponding Organisation of the Different Families*. Vol. 2. Longman, Orme, Brown, Green, & Longmans, London, 587 pp. + appendix.  
<http://dx.doi.org/10.5962/bhl.title.12455>
- Whitley, G.P. (1969) Gerard Krefft (1830–1881) and his bibliography. *Proceedings of the Royal Zoological Society of New South Wales*, 1967–1968 (1969), 38–42. Available from: <http://biodiversitylibrary.org/page/38791895> (accessed 9 July 2014)
- Whittell, H.M. (1954) *The Literature of Australian Birds: A History and a Bibliography of Australian Ornithology*. Paterson Brokensha, Perth, Western Australia. xi + 140 + 788 pp.

## APPENDIX

The following 25 works published by more than ten authors over the past 50 years cite *Sminthopsis granulipes* Troughton as a valid species, thereby meeting the requirements of Article 23.9.1.2 of the Code.

- Anděra, M. (2010) České názvy živočichů. Savci (Mammalia). Dodatek 1 – Vačnatí (Metatheria). *Lynx, series nova*, 41 (1), 295–304. [Czech vernacular names of animals. Mammals (Mammalia). Appendix 1 – Metatherians (Metatheria)]
- Archer, M. (1976) The dasyurid dentition and its relationships to that of didelphids, thylacinids, borhyaenids (Marsupicarnivora) and peramelids (Peramelina: Marsupialia). *Australian Journal of Zoology*, Supplementary Series 39, 1–34.  
<http://dx.doi.org/10.1071/ajzs039>
- Archer, M. (1979) Two new species of *Sminthopsis* Thomas (Dasyuridae: Marsupialia) from northern Australia, *S. butleri* and *S. douglasi*. *Australian Zoologist*, 20 (2), 327–345.
- Blacket, M.J., Krajewski, C., Labrinidis, A., Cambron, B., Cooper, S. & Westerman, M. (1999) Systematic relationships within the dasyurid marsupial tribe Sminthopsini—a multigene approach. *Molecular Phylogenetics and Evolution*, 12 (2), 140–155.  
<http://dx.doi.org/10.1006/mpev.1998.0604>
- Baynes, A. (1975) The distribution of the native mammals of southwestern Australia. *Australian Mammalogy*, 1, 404–405.
- Brooker, B.M. & Withers, P.C. (1994) Kidney structure and renal indexes of dasyurid marsupials. *Australian Journal of*

- Zoology*, 42 (2), 163–176.  
<http://dx.doi.org/10.1071/zo9940163>
- Calver, M.C., King, D.R., Bradley, J.S., Gardner, J.L. & Martin, G. (1989) An assessment of the potential target specificity of 1080 predator baiting in Western Australia. *Wildlife Research*, 16 (6), 625–638.  
<http://dx.doi.org/10.1071/wr9890625>
- Clayton, M., Wombey, J.C., Mason, I.J., Chesser, R.T. & Wells, A. (2006) *CSIRO List of Australian Vertebrates: a Reference with Conservation Status*. CSIRO Publishing, Melbourne, 168 pp.
- Crowther, M.S., Dickman, C.R. & Lynam, A.J. (1999) *Sminthopsis griseoventer boullangerensis* (Marsupialia: Dasyuridae), a new subspecies in the *S. murina* complex from Boullanger Island, Western Australia. *Australian Journal of Zoology*, 47 (3), 215–243.  
<http://dx.doi.org/10.1071/zo98062>
- Duff, A. & Lawson, A. (2004) *Mammals of the World: A Checklist*. Yale University Press, New Haven, CT, 312 pp.
- Goldingay, R.L. (2000) Small dasyurid marsupials—are they effective pollinators? *Australian Journal of Zoology*, 48 (5), 597–606.  
<http://dx.doi.org/10.1071/ZO00015>
- Hayman, D.L. (1990) Marsupial cytogenetics. *Australian Journal of Zoology*, 37 (3), 331–349.  
<http://dx.doi.org/10.1071/zo9890331>
- Hayward, J.S. & Lisson, P.A. (1992) Evolution of brown fat: its absence in marsupials and monotremes. *Canadian Journal of Zoology*, 70 (1), 171–179.  
<http://dx.doi.org/10.1139/z92-025>
- How, R.A., Cooper, N.K. & Bannister, J.L. (2001) Checklist of mammals of Western Australia. *Records of the Western Australian Museum Supplement*, 63, 91–98.
- Kirsch, J.A.W. & Calaby, J.H. (1977) The species of living marsupials: an annotated list. In: Stonehouse, B. & Gilmore, D. (Eds.), *The Biology of Marsupials*. Macmillan, London, pp. 9–26.
- Krajewski, C., Anderson, F.E., Woolley, P.A. & Westerman, M. (2012) Molecular evidence for a deep clade of dunnarts (Marsupialia: Dasyuridae: *Sminthopsis*). *Journal of Mammalian Evolution*, 19 (4), 265–276.  
<http://dx.doi.org/10.1007/s10914-012-9204-3>
- Krajewski, C. & Westerman, M. (2003) Molecular Systematics of Dasyuromorpha. In: Jones, M., Dickman, C.R. & Archer, M. (Eds.), *Predators with Pouches: The Biology of Carnivorous Marsupials*. CSIRO Publishing, Collingwood, Victoria, pp. 3–20.
- McCarthy, M.A. (1998) Identifying declining and threatened species with museum data. *Biological Conservation*, 83 (1), 9–17.  
[http://dx.doi.org/10.1016/s0006-3207\(97\)00048-7](http://dx.doi.org/10.1016/s0006-3207(97)00048-7)
- Marlow, B.J. (1968) *Marsupials of Australia*. 3rd edition. Jacaranda Press, Melbourne, 141 pp.
- Menkhorst, P. & Knight, F. (2011) *A Field Guide to the Mammals of Australia*. 3rd edition. Oxford University Press, Melbourne, Australia, 274 pp.
- Ride, W.D.L. (1970) *A Guide to the Native Mammals of Australia*. Oxford University Press, Melbourne, 249 pp.
- Van Dyck, S., Woinarski, J.C.Z. & Press, A.J. (1994) The Kakadu dunnart, *Sminthopsis bindi* (Marsupialia: Dasyuridae), a new species from the stony woodlands of the Northern Territory. *Memoirs of the Queensland Museum*, 37 (1), 311–323.
- Wilson, B.A., Valentine, L.E., Reaveley, A., Isaac, J. & Wolfe, K.M. (2012) Terrestrial mammals of the Gngangara Groundwater System, Western Australia: history, status, and the possible impacts of a drying climate. *Australian Mammalogy*, 34 (2), 202–216.  
<http://dx.doi.org/10.1071/am11040>
- Woolley, P.A., Westerman, M. & Krajewski, C. (2007) Interspecific affinities within the genus *Sminthopsis* (Dasyuromorpha: Dasyuridae) based on morphology of the penis: congruence with other anatomical and molecular data. *Journal of Mammalogy*, 88 (6), 1381–1392.  
<http://dx.doi.org/10.1644/06-mamm-a-443r.1>
- Warburton, N.M. (2014) Relicts, reproduction and reintroductions—a century of marsupial research in Western Australia. *Journal of the Royal Society of Western Australia*, 97, 65–85.