



# Article

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## A new dasyurid marsupial from eastern Queensland, Australia: the Buff-footed Antechinus, *Antechinus mysticus* sp. nov. (Marsupialia: Dasyuridae)

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### Abstract

*Antechinus mysticus* sp. nov. occurs in coastal Australia, ranging from just north of the Queensland (Qld)/New South Wales (NSW) border to Mackay (mid-east Qld), and is sympatric with *A. flavipes* (Waterhouse) and *A. subtropicus* Van Dyck & Crowther in south-east Qld. The new species can be distinguished in the field, having paler feet and tail base than *A. flavipes* and a greyish head that merges to buff-yellow on the rump and flanks, compared with the more uniform brown head and body of *A. subtropicus* and *A. stuartii* Macleay. Features of the dentary can also be used for identification: *A. mysticus* differs from *A. flavipes* in having smaller molar teeth, from *A. subtropicus* in having a larger gap between front and rear palatal vacuities, and from *A. stuartii* in having a generally broader snout. Here, we present a morphological analysis of the new species in comparison with every member of the genus, including a discussion of genetic structure and broader evolutionary trends, as well as an identification key to species based on dental characters. It seems likely that the known geographic range of *A. mysticus* will expand as taxonomic focus on the genus is concentrated in south-east Queensland and north-east New South Wales.

**Key words:** *Antechinus flavipes*, *Antechinus subtropicus*, *Antechinus stuartii*, morphological, genetic, evolutionary, south-east Queensland, north-east New South Wales

### Introduction

The ubiquitous and variable Yellow-footed Antechinus, *Antechinus flavipes*, comprises three currently recognized subspecies whose combined geographic distribution spans almost the length and breadth of Australia. *A. flavipes leucogaster* Gray is confined to south-west WA; *A. flavipes flavipes* is broadly distributed in south-eastern Australia across four states—South Australia, Victoria, New South Wales and south-east Queensland; *A. flavipes rubeculus* Van Dyck is confined to the wet tropics of Qld.