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## A new subspecies of hutia (*Plagiodontia*, Capromyidae, Rodentia) from southern Hispaniola

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### Abstract

Continued uncertainty persists over the taxonomic status of many threatened Caribbean mammal populations. Recent molecular analysis has identified three genetically isolated allopatric hutia populations on Hispaniola that diverged during the Middle Pleistocene, with observed levels of sequence divergence interpreted as representing subspecies-level differentiation through comparison with genetic data for other capromyids. Subsequent analysis of existing museum specimens has demonstrated biogeographically congruent morphometric differentiation for two of these three populations, *Plagiodontia aedium aedium* (southwestern population) and *P. aedium hylaeum* (northern population). We report the first craniodental material for the southeastern Hispaniolan hutia population, and demonstrate that this population can also be differentiated using quantitative morphometric analysis from other Hispaniolan hutia subspecies. The holotype skull of *P. aedium aedium*, of unknown geographic provenance within Hispaniola, clusters morphometrically with the southwestern population. The southeastern Hispaniolan subspecies is described as *Plagiodontia aedium bondi* **subsp. nov.**, and is assessed as Endangered under Criterion B1a,biii,v on the IUCN Red List.

**Key words:** Bond's Line, craniodental morphometrics, Dominican Republic, endangered, Haiti, phylogeography

### Introduction

The caviomorph family Capromyidae is a clade of large-bodied rodents known as hutias, which constitutes one of only two native non-volant land mammal families that still survive in the insular Caribbean. The family formerly comprised c.30 species distributed across the Greater Antilles and neighboring islands (Woods & Sergile 2001). However, the Caribbean land mammal fauna experienced a severe series of extinctions during the Late Quaternary, and most of the capromyid evolutionary radiation disappeared during the prehistoric Holocene and post-AD 1500 historical era due to human activities (MacPhee & Flemming 1999; MacPhee 2009; Turvey 2009), with only eight currently recognized species probably still extant (Borroto-Páez & Mancina 2011; IUCN 2013).

Reconstructing the magnitude, dynamics and drivers of Caribbean Late Quaternary extinctions is complicated by continued uncertainty over the taxonomic status of many of the region's extinct and extant mammals. Most strikingly, whereas 27 Late Quaternary–Recent capromyid species were recognized from Cuba during the late twentieth century, 16 are now considered dubious or invalid (Díaz-Franco 2001; Silva Taboada *et al.* 2007; Borroto-Páez & Mancina 2011). Similarly, recent analysis of Hispaniola's plagiodontine hutias has reduced the number of Late Quaternary species from eight to four (Hansford *et al.* 2012). Conversely, the status of numerous extinct and extant Caribbean mammal populations has not been assessed using modern quantitative morphometric