



Genetic assessment of the Atlantic Forest bristle porcupine, *Chaetomys subspinosus* (Rodentia: Erethizontidae), an endemic species threatened with extinction

C.G. Oliveira¹, R.A. Martinez², G.A.F. Giné¹, D.M. Faria¹ and F.A. Gaiotto¹

¹Departamento de Ciências Biológicas, Universidade Estadual de Santa Cruz, Ilhéus, BA, Brasil

²Departamento de Filosofia e Ciências Humanas, Universidade Estadual de Santa Cruz, Ilhéus, BA, Brasil

Corresponding author: F.A. Gaiotto
E-mail: gaiotto@uesc.br / fagaiotto@gmail.com

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ABSTRACT. The bristle-spined porcupine, *Chaetomys subspinosus*, an endemic rodent from Atlantic Forest, was considered to be abundant in the recent past, but population reductions due to habitat loss and expansion of human activities caused this species to be included in the “vulnerable” category of the World Conservation Union Red List. We performed the first genetic assessment in natural populations of this focal species along its geographical distribution. Thirty-five non-invasive samples (hair) were collected from three natural populations in the Brazilian States of Sergipe, Bahia and Espírito Santo. Genetic similarity obtained by Jaccard’s index, based on dominant RAPD and ISSR markers, varied between 25 and 100%. Four clusters, mainly coincident with the geographical distribution of the populations, were

observed. Analysis of molecular variance based on 47 polymorphic loci showed that there was 15.99% genetic variability among populations and 84.01% within populations. The estimated genetic structure among populations (ϕ_{ST}) was 0.16. The populations may have formed a continuum along the past distribution of the Atlantic rainforest but historical events of human occupation resulted in recent divergence among sampled populations.

Key words: AMOVA; Conservation; Endemism; Genetic diversity; Molecular markers