

Continued dispersal of the Wood Slave Gecko, *Hemidactylus mabouia*, in natural environments of Brazil

The introduction of non-native species in a new environment can change the population, community and ecosystem natural dynamics mainly when they become invasive (Branch & Steffani 2004). For example, non-native species may change the competition and predation dynamics and cause extinction of native species (Mooney & Cleland 2001, Shea & Chelson 2002). However, these assumptions will depend on several factors, among them, if the non-native species can establish reproductive population in the invaded environment (Ferreira et al. 2012).

The gekkonid *Hemidactylus mabouia* (Moreau de Jonnés 1818) is an exotic lizard, native of central and eastern Africa (Carranza & Arnold 2006) and, as a consequence of human disturbance, were introduced in West Africa, Caribbean (Van Buurt 2006), Florida (Meshaka et al. 2004; Meshaka, 2011) and South America (Fuenmayor et al. 2005). In Brazil, the first individuals of *H. mabouia* were probably brought on slave ships (Júnior et al. 2015) and currently, is commonly associated with anthropogenic areas (Ribeiro-Júnior 2015), including human residences, but can also be found in natural mainland and insular areas (see review in Rocha et al. 2011). The southeastern region of Brazil has the highest number of *H. mabouia* in natural areas of the country, especially in the state of Rio de Janeiro (Rocha et al. 2011). In Espírito Santo state, the occurrence of this species in natural areas were only confirmed on the mainland in President Kennedy (Araújo 1994), Linhares (Zamprogno & Teixeira 1998), Guriri (Teixeira 2001), Venda Nova do Imigrante (Sampaio et al. 2007), Vitória (Ferreira & Mendes 2010), Santa Teresa (Lanschi & Ferreira 2012), Praia das Neves, Conceição da Barra and Itaúnas (Oliveira et al. 2016).

During fieldwork in the Paulo Cesar Vinha State Park, Guarapari, state of Espírito Santo (Fig. 1) we detected individuals and clutches of *H. mabouia* in two new natural environments in January and March 2013.

On the mainland (20°36'53.41"S, 40°25'5.23"W), we recorded three juveniles, of which two were under herbaceous vegetation and one under deposits of sea mollusc shells. We also found eggs of *H. mabouia* at the base of bromeliads *Aechmea blanchetiana* (Baker) LB Sm. On the island

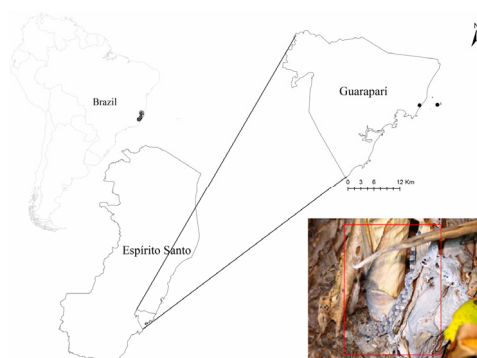


Figure 1. Map of study area in southeastern Brazil. Black points are the sample locations in mainland and a new record on island in Paulo César Vinha State Park. Details of one individual of *H. mabouia* in natural area. Photo: Flávio Mendes.

(20°36'43.92"S, 40°22'58.21"W), we recorded seven individuals of *H. mabouia* inhabiting natural areas, of which four were under rocks and three at the base of bromeliads *Quesnelia quesneliana* (Brongniart) L.B.Smith.

Only the presence of *H. mabouia* on natural area does not assure successful population establishment (Rocha et al. 2011), but the presence of eggs and juveniles clearly confirms that *H. mabouia* can use available resources for reproduction. Since the first record of *H. mabouia* in Brazilian natural environments (Myers 1945), this species has been considered invasive only in the Paraná, Rio de Janeiro, São Paulo, Roraima and Piauí states, besides being observed south of the Espírito Santo state (Rocha et al. 2011, Ribeiro-Júnior 2015, present study). This finding reflects the successful use of trophic and spatial niches over time. In light of its negative associations with other lizards (Meshaka, 2000, Meshaka 2011, Hughes et al. 2015), we note the importance of studies to assess viability and effective population size in natural environments and to examine the relationships between this species and native species with which it may encounter, such as the lizard *Gymnodactylus darwini* (Gray 1845), which occurs sympatrically with *H. mabouia* in several regions of the country (Cicchi et al. 2009, Sales et al. 2010).

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