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Nota breve | Short note

First record of the house gecko *Hemidactylus mabouia* for the island of Sal, Cabo Verde

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Invasive species have been found to disrupt relationships between endemic species by, for instance, competition for resources, predation, and transmission of diseases, and reptiles are among the most affected groups (Ruiz *et al.* 2003). Island endemics, due to their restricted distributions and naive behavior, usually have increased risks of extinction due to invasives (Gaiotto *et al.* 2020). In Cabo Verde Islands, two reptile species have already gone extinct partly due to invasives (Pinho *et al.* 2022). The house gecko *Hemidactylus mabouia* is introduced to Cabo Verde which has greatly increased its range during the last century due to human mediation (Carranza & Arnaldo 2006). It is one of the most effective invaders of its genus and should be closely monitored to ensure that it does not expand its range or displace native species as *Hemidactylus angulatus*, also introduced to Cabo Verde, is doing with the native *Hemidactylus boavistensis* (Vasconcelos *et al*. 2013).

To sample reptiles, during day and night, two 300 m-transects were carried out by two observers during the dry season, from 19 to 20 April 2023, in the central-eastern part of Sal (16.70209º N, 22.90129º W). Animals were searched for under rocks by day and on the ground using head lamps when active by night. For each individual found, a code was assigned, the location and time of capture were GPS-recorded, a tail tissue was collected, and digital photographs were taken. DNA was extracted from the tail tissue using the saline method and amplified using the universal 12S primers. Amplification (PCR) included an initial activation step (95º for 15 min), followed by 35 cycles of denaturation (30 s at 95ºC), annealing (30 s at 55ºC), extension (45 s at 72ºC) and final extension (10 min at 60ºC). The amplified

products were sequenced in an automatic sequencer (AB3500XL, Applied Biosystems) and made available in GenBank (OR838827).

Three adults (males and females; Fig. 1), one juvenile, and several putative *H. mabouia* eggs were found. Pictures of the diagnostic morphological characters and the genetic sequence (identical to OQ267597 GenBank sequence) confirmed they belong to that species.

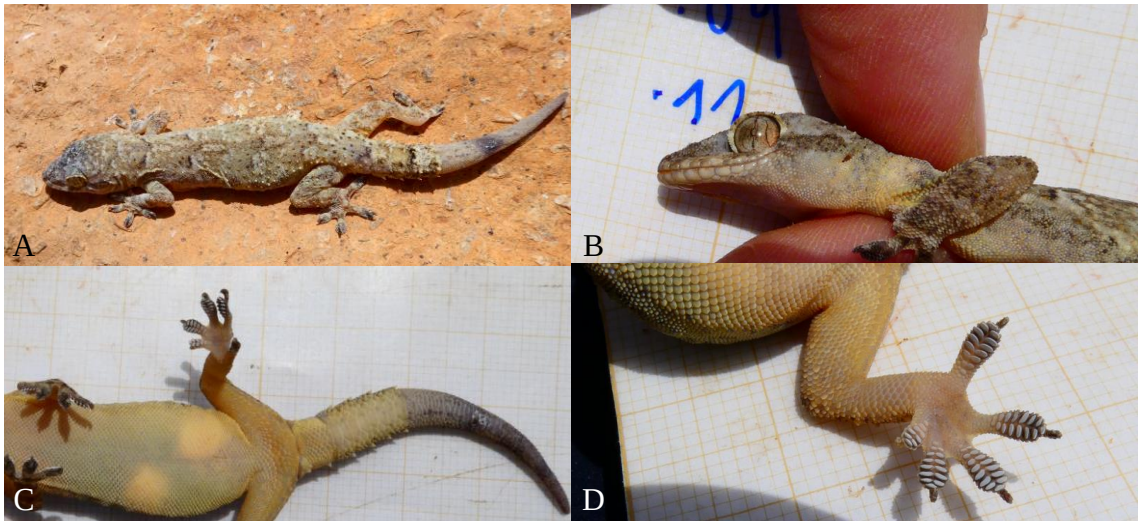

Fig. 1. *Hemidactylus mabouia* recorded on the island of Sal in April 2023 (photos by R. Vasconcelos). **A)** Dorsal view with the typical spiny tubercles and wavy crossbars from neck to tail. **B)** Lateral view. **C)** Ventral view of ovate female confirming reproduction of the species. **D)** Detail of the fingers with divided lamellae and long five claws, a diagnostic character of this genus.

Before this work, the distribution of *H. mabouia* in Cabo Verde was confirmed only on three islands: Santo Antão, Brava, and São Vicente (Vasconcelos *et al*. 2013). This herpetofauna monitoring confirmed its presence on Sal for the first time, showing that the species is still expanding its range in the archipelago. These specimens showed to have the same haplotype as those found on other islands, indicating a recent introduction (Pinho *et al*. 2023).

More studies on the effects of the presence of this species on the archipelago are needed, and measures to prevent the expansion of *Hemidactylus* among the islands should be implemented (e.g., control of boats and plain cargo), to ensure the protection of endemic species (Vasconcelos *et al*. 2020).

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