

DESCRIPTION OF INVASIVE EXOTIC REPTILE SPECIES FROM THE LESSER ANTILLES



Hemidactylus mabouia

(Moreau de Jonnès, 1818)

Common name: House gecko, Moreau's tropical gecko, Wood slave gecko, Wood slave

Local name: Hémidactyle commun, Gecko des maisons

Order: Squamata, Family: Dactyloidae

Description

Morphology. The House gecko is a medium-sized gecko, characterised by the presence of a long claw on all five fingers, numerous tubercles on the back, and six rows of spiny tubercles on sides of the tail (Powell et al. , 1998; HerpMe, Société Herpétologique de France). The body colour and dorsal patterns vary from white and light gray to dark brown. The tail is usually marked with dark rings (Powell et al., 1998; HerpMe, Société Herpétologique de France).

Standard body size (snout vent length). males: 42 to 67,9 mm; females: 42 to 72 mm (Powell et al., 1998; HerpMe, Société Herpétologique de France).

Sexual dimorphism. Females are generally larger than males.

Variations. The body colour of the same individual can vary from light to dark, depending on its physiological condition.

Possible confusion with other species. In the Antilles, confusion is possible with the Mourning gecko *Lepidodactylus lugubris*. However, the Mourning gecko is characterised by the presence of claws on four out of five fingers (absent on the thumb), a smooth-looking body without tubercles, with a dorsal pattern consisting of black symmetrical spots, sometimes discrete, « V » or « W » shaped, or in the form of dots. The base of the tail is slightly enlarged (HerpMe, Société Herpétologique de France).

Distribution

Native. Africa: Mali, Senegal, Guinea, Ivory Coast, Ghana, Togo, Benin, Nigeria, Tchad, Cameroun, Gabon, Sao Tomé and Príncipe, Central African Republic, Democratic Republic of the Congo, Angola, Namibia, Republic of South Africa, Eswatini, Republic of South Sudan, Uganda, Tanzania, Zambia, Zimbabwe, Eritrea, Ethiopia, Kenya, Mozambique, Seychelles (e.g. Powell et al., 1998).

Introduced. Florida (Krysko and Daniels, 2005; Meshaka et al., 2006; Meshaka, 2011; Burke et Lieto, 2019), Mexico, Honduras (McCranie, 2015), Costa Rica, Panama, Colombia, Venezuela (Fuenmayor et al., 2005), Guyana, Surinam (Jairam et al., 2016), Guyane (Hoogmoed, 1975), Ecuador (Torres-Carvajal et al., 2019), Peru, Bolivia, Brazil (Telles et al., 2015; Mageski et al., 2017; Franzini et al., 2019; Oliveira Neves et al., 2019; Cozer et al., 2020), Paraguay, Uruguay, Argentina (Torres et al., 2018), Madère (Jesus et al., 2002).

Caribbean: Bermuda (Outerbridge and Massey, 2018), Eleuthera Island (Bahamas) (Johnson et al., 2013), Great Inagua (Bahamas) (Griffing et Bauer, 2016), Cuba (Iturriaga and Marrero, 2013; Schettino et al., 2013; Borroto-Paez and Pérez, 2019, 2020), Grand Cayman, Brac Island (Barnett et al., 2020), Jamaïque, Turks and Caicos Islands (Reynolds, 2012), Mona, Culebra, Puerto Rico, Vieques, American and British Virgin Islands, Anguilla (Howard et al., 2001), Antigua, Barbuda, Redonda (Daltry, 2007), Saint Martin, Saint Barthelemy (Lorvelec et al., 2007), Bonaire, Saint Eustache, Saba, Saint Kitts and Nevis, Montserrat, Guadeloupe (Lorvelec et al., 2007), Dominica, Martinique (Lorvelec et al., 2007), Sainte Lucia, Grenada, Saint Vincent and the Grenadines, Barbados, Trinidad, Tobago (Auguste, 2019), Curaçao (Hughes et al., 2015).

Biology and ecology

Habitat. The global distribution of the House gecko reflects its preference for tropical to sub-tropical climates (Rödder et al. 2008). The species is able to cope with a great diversity of natural and anthropized habitats. *Hemidactylus mabouia* is particularly abundant in forest habitats, as well as in urban and suburban areas.

Diet. Feeds mainly on small arthropods: insects, arachnids and crustaceans (Rocha et Anjos, 2007; Iturriaga and Marrero, 2013).

Reproduction. Reproduction occurs throughout the year, with a peak from August to December. Females are able to store sperm, and can lay eggs up to seven times a year. Two eggs are laid per nest, and incubation lasts 22 to 68 days (58 days on average).

Behaviour. The House gecko is a territorial species which can behave aggressively towards its congeners or other reptile species.

Impact and management of introduced populations

Impact. *Hemidactylus mabouia* can compete with native species. Hughes and colleagues (2015) observed in Curaçao the displacement of the native gecko, *Phyllodactylus martini*, from usually occupied sites, under pressure from the House gecko.

Other authors have also reported competitive interactions with a native Cuban anole species, *Anolis porcatus*, without observing any displacement of the species (Borroto-Paez et Pérez, 2019).

Management. To date, no targeted control measures have been established in the different regions where the species has been introduced.

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