

DESCRIPTION OF INVASIVE EXOTIC REPTILE SPECIES FROM THE LESSER ANTILLES



Gekko gecko

(Linnaeus, 1758)

Common name: Tokay gecko

Local name: Gecko tokay, Tuctoo, Tokeh-tokeh

Order : Squamata, Family : Gekkonidae

Description

Morphology. The Tokay gecko is a large sized gecko, with a large head and a smooth-looking body, usually bluish-gray with orange dots and light blue spots. The pupil is vertical.

Standard body size (snout-vent length). males: 131 to 170 mm; females: 110 à 152 mm (Meshaka et al., 1997; Aowphol et al., 2006).

Sexual dimorphism. Males are bigger and more brightly coloured than females.

Variations. Body colour can vary from light to dark, under control of the individual.

Possible confusion with other species. In the Lesser Antilles, the Tokay Gecko, due to its large size, colour pattern and very recognisable vocalisations, cannot be confused with other gecko species.

Distribution

Native. North-East India, South-East Nepal, South of Bhutan, Myanmar, Thailand, Cambodia, Laos, Vietnam, Malaysia, South-East China, Hong Kong, Guangxi, Taiwan, Philippines, Indonesia (Rösler et al., 2011; Wood et al., 2020).

Introduced. Florida (Meshaka et al., 1997; Krysko and Daniels, 2005; Krysko and Love, 2016; Behm et al., 2019).

Caribbean: Guadeloupe (Breuil et al., 2009), Martinique (Lorvelec et al., 2007), Curaçao (Behm et al., 2019).

Possible introduction on South Water Caye island, Belize (Meerman et Garel, 2005).

Biology and ecology

Habitat. In natural environment, the Tokay Gecko mainly occupies forest environments (tropical rainforests), but is also abundant in urban areas (Aowphol et al., 2006; Singh and Choudhury, 2016).

Diet. Insectivore and carnivore (Meshaka et al., 1997; Aowphol et al., 2006; Krysko and Love, 2016; Sy et Tanalgo, 2018).

Reproduction. Reproduction occurs at the end of the cold season. Sexual maturity is reached during the second year.

Behaviour. The Tokay Gecko has a large repertoire of powerful vocalisations, which can be heard several dozen meters away, performed during the breeding season or during territorial defence. Males, females, and even juveniles can produce vocalisations (Yu et al., 2011), but typical vocalisations of the Tokay Gecko, consisting of low-amplitude cackles followed by much louder GECK-O syllables, are used by males to attract females (Brumm et Zollinger, 2017).

It is a territorial species, which can be very aggressive in defending its territory or when facing a threat. It typically opens its mouth wide for intimidation, and can eventually inflict violent bites if conflict escalates. The Tokay gecko can also feign death when threatened (Lalronunga et al. 2017).

Impact and management of introduced populations

Impact. Little is known about the impact of the Tokay gecko on native ecosystems in introduced regions.

Management. In 2019, the Tokay gecko was included in the list of Appendices II of CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora), allowing control and monitoring of trade in the species (Sy and Shepherd, 2020).

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