
First record of tail bifurcation in Tokay Gecko (*Gekko gekko*) from the Kaziranga, Assam, India : a field observation

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Abstract

The Tokay Gecko (*Gekko gekko*) is the second largest surviving Gecko species and are distributed across much of South-East Asia, Southern China and Northeastern India and Nepal. In Kaziranga landscape Tokay Gecko are fairly common and frequently seen around households in rural area. Though tail bifurcation is common in lizards but till date no recorded specimen of Tokay Gecko with bifurcated tail had been reported from Kaziranga Landscape.

Key Words: Tail bifurcation, Tokay Gecko.

Introduction

The Tokay Gecko (*Gekko gekko*, Linnaeus, 1758) is the second largest surviving Gecko species with adults measuring up to 400 mm (16 inch) in length and over 300 g in weight (Manthey & Grossmann, 1997). Males are larger than females and distinguished by its blue-grey, orange spotted skin and its unique vocalization which gives rise to the Tokay Gecko's everyday name in English ("to-kay") (Das, 2010). Tokay Geckos are distributed mainly in South-East Asia, Southern China and Northeastern India and Nepal (Das, 2010).

Tokay Geckos are arboreal and can be found in primary and secondary forests as well as close to human habitation (Manthey & Grossmann, 1997). Tokay Geckos are nocturnal, feeding predominantly on invertebrates including moths, grasshoppers, beetles, termites, crickets, cockroaches, mosquitoes and spiders (Das, 2010). This species is solitary and males and females pairs during the mating season (Manthey & Grossmann, 1997).

Tail autotomy or tail casting is a common strategy for evading predators in lizards. It has been observed in 13 out of 20 lizard families (Downes, 2001; Bateman & Fleming, 2009). Though the tail autotomy is an act of survival tactic but the loss of the tail can lead to increased susceptibility to predators in future (Arnold, 1984; Mc Connachine & Whiting, 2003). A lost tail can be regenerated in a lizard throughout the course of its life (Balinsky, 1981; Maginnis, 2006).

Tail bifurcation, Two-tailed or occasionally even three-tailed lizards are not uncommon (Gandhla & Srinivasalu, 2015). Tail bifurcations are considered to be a result of previous injuries (Lynn, 1950). According to Alibardi (2010), such deformities may be caused by an incomplete caudal autotomy and due to crushed spinal cord and ependymal within the tail. Observation of bifid or bifurcated tails are recorded in the family Gekkonidae and Phyllodactylidae (Kumbar et al., 2011; Gandhla & Srinivasalu, 2015; Koleska, 2018).

Description of the Specimen

The Corbett Foundation (TCF) was established on 22 April 1994. TCF is a charitable, non-profit & non-governmental organization that is fully dedicated to the conservation of wildlife. TCF works towards a harmonious coexistence between human beings and wildlife across important wildlife habitats in India, namely Corbett Tiger Reserve (Uttarakhand), Kanha and Bandhavgarh Tiger Reserves (Madhya Pradesh), Kaziranga Tiger Reserve (Assam), and around the Greater Rann of Kutch (Gujarat). TCF Kaziranga unit is also actively engaged in rescue and rehabilitation of wildlife trapped in distressed condition in and around Kaziranga. On 29 April 2018 at about 12:30 hrs IST, TCF team received a rescue call from Iora Resort, Kaziranga ($26^{\circ} 35'02.73''$ N, $93^{\circ} 24'59.64''$ E) informing about a "big lizard" resting on the periphery of their Spa unit. TCF team led by Manoj Gogoi and Sumanta Kundu rushed to the spot within 15 minute and located the animal on the boundary of the Spa room and it was revealed to the Iora Resort Management that the "big lizard" to be a juvenile Tokey Gecko. Close observation of the specimen indicated that the Gecko possesses a distinct bifurcated tail. The length of the Tokey Gecko from nose tip to cloaca was 195mm (7.6 inch) and the tail was forked approximately 30 mm (1.2 inch) posterior to the cloaca. The length of left tail fork was 70 mm (2.75 inch) and the right tail fork was 63mm (2.5 inch). At the point of bifurcation, it seems that the original tail had been broken on the partially at an early stage of development, perhaps during a failed attempt at capture by a predator. The right tail fork had branched out from the bifurcation point and both the tail forks grew simultaneously as both are nearly equal in length and size. Except the mild difference in length, both the tail forks are similar in colour too. Some observation also indicated that caudal autotomy is likely to be disadvantageous, making the lizard more conspicuous to predators and potentially reducing activity, modifying

foraging behaviour and reducing mating opportunities (Chapple and Swain, 2002).

In view of the above mentioned points and for better protection, the Gecko was released within campus of "Naturalist for rehabilitation of Bird and Snakes (NRSB)" a well-known conservation group operating in Kaziranga as there is high demand of Tokey Gecko in illegal wildlife trade (Oliver, 2013). The animal was released on 30 April 2018 at around 18:30 hrs IST at Dumjaan, Kaziranga. The animal was again sighted on 4th May 2018 at 18:30IST and seemed to managing a normal life after the release. Sightings of Tokey Gecko is very common phenomenon in Kaziranga area as the animals generally lives close to human habitation and even inside rural houses. But sighting of two tailed / bifurcated tailed Tokey Gecko is not reported so far from Kaziranga landscape thus, as far as the authors are aware that, this is the first record of tail bifurcation in this species from Kaziranga, Assam, India.

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Fig. 1. Two Tailed Tokey Gecko after rescue during measurements (Photo- Sumanta Kundu).



Fig. 2. Two Tailed Tokey Gecko after release (Photo- Manoj Gogoi).

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