



Tail Bifurcation in a Tokay Gecko, *Gekko gekko* (Linnaeus 1758), with Notes on the Natural History of the Species in Ilam, Nepal

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The Tokay Gecko (*Gekko gekko*), with a maximum total length to 395 mm is one of the largest living geckos; it lives on trees and rocks in tropical rainforest (Kästle et al. 2013). In Nepal, the species occupies a narrow strip in the upper Terai and in the low midlands of extreme eastern Nepal (Rai et al. 2002; Kästle et al. 2013). Based on global distribution and threats, it is listed as being of Least Concern (LC) in the IUCN Red List of Threatened Species (Lwin 2019); however, Kästle et al. (2013) noted that the Tokay Gecko is perhaps a recent immigrant to Nepal, where it is rare. It is listed under Appendix II in CITES (CITES 2021). The principal threats to Tokay Geckos are collection for traditional medicine and the pet trade (Caillabet 2013), as well as habitat destruction and wanton killing (Rai et al. 2002; Kästle et al. 2013). *Pardafas*, a Nepali newspaper, reported the arrest of two lizard smugglers with eight live Tokay Geckos in Kathmandu, Nepal; they presumably were selling them as a source of drugs to treat AIDS (*Pardafas* Reporter 2020).

At 0715 h on 18 September 2020, Terisa Tamang observed a Tokay Gecko with a bifurcated tail on a wooden ceiling about 3.5 m above the floor in Pandau, a rural area in Mai Municipality-7 of Ilam District, eastern Nepal (26°46'51.7"N, 87°48'32.3"E; elev. 222 m asl; Fig. 1). Caudal autotomy is a major defense mechanism in 13 lizard families (Downes and Shine 2001). Abnormal tail regenera-



Fig. 1. A Tokay Gecko (*Gekko gekko*) with a bifurcated tail from Pandau, Ilam District, Nepal. Photograph by Terisa Tamang.



Fig. 2. A pair of Tokay Gecko (*Gekko gekko*) eggs glued to a wooden beam in Pandau, Ilam District, Nepal. Photograph by Tapil P. Rai.

tion (from bifurcations to hexafurcations) is the result of previous injury rather than developmental tail deformity (Lynn 1950) and also has been reported in several lizard families (Barr et al. 2020). Tail bifurcation in a Tokay Gecko was recorded by Gogoi et al. (2018) in Kaziranga, Assam, India; however, this observation is the first record from Nepal.

Based on that report, I visited Pandau on 20 September 2020 and observed two Tokay Geckos (an adult and a juvenile) and a pair of eggs glued on a wooden beam (Fig. 2) near where the gecko with the bifurcated tail had been seen. I also found two adults about 5 m away in a wooden shed. A survey of the surrounding area confirmed that Tokay Geckos inhabited a dozen wooden houses. The presence of adults, juveniles, and eggs suggests that they are breeding naturally (Fig. 3). The inhabitants of Pandau describe Tokay Geckos feeding on insects attracted to lights and House Mice (*Mus musculus*). Kästle et al. (2013) mentioned Tokay Geckos feeding on young mice and Bucol and Alcalá (2013) recorded Tokay Geckos preying on juvenile rats (*Rattus* sp.) in the Philippines. Local residents also indicated that predation on Tokay Geckos by Bengal Monitors (*Varanus bengalensis*) is a common sight and one of the factors decreasing the popula-



Fig. 3. An adult (left) and a juvenile (right) Tokay Gecko (*Gekko gecko*) from Pandau, Ilam District, Nepal. Photographs by Tapil P. Rai.

tion. Bengal Monitors are largely diurnal generalist predators that prey on invertebrates, fishes, amphibians, reptiles, birds, and mammals (Kästle et al. 2013; Karunarathna et al. 2017). As Tokay Geckos are rare and distributed sparingly in eastern Nepal, this documentation of reproduction in Ilam is a promising record for Nepal.

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