A NEW FINDING ON THE OCCURRENCE OF GOLDEN GECKO (CALODACTYLODES AUREUS) IN THE ROCK BOULDERS NEAR VELLORE TOWN

M.RAJASEKHAR* AND N.V.NANDA KUMAR

Department of Zoology, S.V.University, Tirupati-517502 E-mail: drmrsekhar@rediffmail.com

KEYWORDS

Calodactylodes aureus Lizards Rockboulders **Received on:** 17.10.2006 **Accepted on:** 21.01.2007

* Corresponding author

ABSTRACT

Golden geckos (*Calodactylodes aureus*) are reported for the first time in the rock boulders near Vellore Town ,North Arcot district of Tamilnadu,India . Vellore Town is surrounded by small hillocks with huge boulders. Those hillocks which are elevated at 50 to 100 meters are locations. A survey was made within fifteen kilometers radius towards east of Vellore town .Surprisingly golden geckos are observed in these locations contrary to the habitat described earlier .Hence the report emphasizes that golden geckos can also be seen in dry ,drought and high temperature zones where huge rock boulders are present and not only in the mountains of high altitudes with high rainfall and humidity.

INTRODUCTION

There are over 850 different species of lizards present in the world. Among them 675 species are primitive and distributed world wide, mainly in the tropics. They are famous for their nocturnal habits. (Daniel et al., 1985 and 1983) One such primitive, nocturnal, endemic and endangered lizard is Golden gecko (Calodactylodes aureus). Virtually nothing was known about its distribution in India except a few citations (Bauer et al., 2000). These were considered as rare geckos. A brief and cryptic description was given by Beddome (1870). There are reports of various other geckos whose habitat is different. The Andaman Day gecko - Phelsuma andamanese (Whitaker and Whitaker 1978) is arboreal. The colour ranges from dark brilliant green to brownish black. Eight other species of subgenus Strophurus was reported in Western Australia (How et al., 1986) . These were also mostly arboreal. Nanda Kumar et al., (2000) reported Golden geckos in rock crevices of huge boulders in Tirumala and Sheshachallam mountains. Rajasekhar (2007) reported destruction of Golden geckos habitat in some locations on Tirumala Hills. For the first time Rajasekhar (2007) made survey in huge rock boulders near outskirts of Vellore and in the present paper the habitat, number of animals and egg clutch size is given. Some locations showed destruction of their habitat and is described.

MATERIALS AND METHODS

The geckos were spotted with powerful torchlight on the boulders in the night. A few geckos made vocal sounds, which are distinct and louder than the vocal sounds of house geckos. A few geckos were found in the crevices of

huge rock boulders. When geckos are found in superficial crevices (which are not deep) the geckos can be observed closely with lens by focusing light for their characteristic, expanded phalanges (Russell,1989; Nanda Kumar et al., 2000) and for skin colour ranging from bright yellow to brownish yellow with dark black round spots of less than 1 mm diameter. The geckos in the superficial crevices can be observed closely, as their movements is much restricted than the geckos present in the deep and lengthy crevices. The locations surveyed are within 15 km radius towards east of Vellore town and on lateral sides of Vellore-Chennia highway and also in vacant lands consisting huge rock boulders.

RESULTS AND DISCUSSION

Golden geckos were spotted for the first time in rock boulders as well as isolated big boulders in the outskirts of Vellore town and on the way to Chennai. The detailsof spotting of geckos eggs and clutch size, number of excreta points and its habitat is presented in Table 1.

Table 1: Distribution of Golden geckos in outskirts of Vellore, Tamilnadu

S.N	.Location	1.	2	3	4
1.	Otteri	8	yes	60 -70	H.r.b*
2.	Vanian kulam	3	No	12 -15	-do-
3.	Kuladi medu	1	No	0	-do-
4.	Nayaganeri	3	No	30-40	-do-
5.	Kanyakapuram	0	No	3-6	-do-
6.	Patnul mitta	7	yes	0	-do-
7.	Chennai highway	4	No	12-16	-do-
	Boulder 1				
8.	Boulder 2	2	No	35-40	-do-

1. No. of animals observed egg patch(No. of eggs)

2. Excreta observed 3. Communal 4. Habitat *Huge rocky boulders

Animal Description

A photograph of Golden gecko (Fig.1) is delineated. The animal colour is yellow to light yellow and some are dark brown and light brown matching with the colour and the shade of the rock. The terminal phalanges of the animal were found expanded. This is the only characteristic feature to distinguish from other geckos or lizards.

Habitat

In all the locations where the geckos were spotted, the following features were found. They are found in the massive boulders and rock crevices, they can be seen in the vertical/horizontal burrows in the rock, these burrow's temperature was slightly less and more humid than rocky surface areas.(Fig 2). Spiders, butterflies, dragonflies and a few red ants were found moving on rock boulders. Cluster of eggs were seen near the boulders which is described in Table 1. The excreta of Golden geckos was observed at the rock boulders and this was white in colour. Earlier reports showed spotting of Golden geckos in Tirumala hills and Seshachalam hill ranges (Nanda Kumar et al., 2000). There were no reports on its occurrence other than Tirumala and Seshachallam hills. Occurrence of Golden geckos in Western ghats where high humidity, good rainfall and low temperatures existed was noted. Contrary to these observations Golden geckos could be

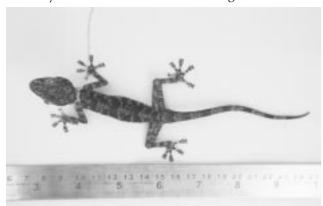


Figure 1: Golden gecko with expanded terminal phalanges

spotted for the first time by Rajasekhar (2007) in dry and chronically drought hit areas of North Arcot district of Tamil Nadu. The Geckos can be spotted within 15 kms radius towards east of Vellore town and surrounding hillocks (Table 1). These Geckos could be seen in night (9 to 11 pm) as it is a nocturnal animal. Clear vocal sounds can be heard which matches with the sounds noted earlier by Rajasekhar (2007). It is a first scientific report on existence of Golden geckos in North Arcot District plains where rock boulders are seen.

Habitat destruction

Golden geckos have to be conserved with immediate effect. Surprisingly the authors found the rock boulders are being blasted for construction of roads and for buildings near



Figure 2: Habitat of golden gecko with huge rock boulders

Vellore town. There are two large metal manufacturing industries namly Kalai Blue Metals and VCE metals. These two metal manufacturing units are destroying the Golden gecko habitat. The existing Golden geckos, which are occasionally seen and confined only to certain regions and rock boulders, may be preserved. The rock boulders should not be used for any other purposes. Work is in progress for survey of the animal in other areas of Tamilnadu.

ACKNOWLEDGEMENTS

The author Dr.M.Rajasekhar is greatly indebted to D.S.T. Ministry of Science and Technology for awarding DST SERC Young scientist Project on survey of Golden gecko and during this tenure the work is being carried out.

REFERENCES

Bauer, A.M., and Indraneil Das. 2000. A review of the gekkonid genus Calodactylodes (Reptilia :Squamata) from India and Sri Lanka. *South Asian Nat. Hist.*, Vol. **5.** No.1 : 25-35.

Beddome, R.H. 1870. Descriptions of some new lizards from the Madras Presidency. Madras Monthly. *J. Med. Sci.* **1** : 30-35, pls. 1-2.

Daniel, J.C., and Bharath Bhushan. 1985. Golden Gecko of Tirumala Hills. *Horn Bill*.**3**: 17-19.

Daniel, J.C. 1983. *The Text Book on Indian Reptiles*. Oxford University Press, Oxford.

Nanda Kumar, N.V., Vijaya Lakshmi, K.M.., Rajasekhar, M., Ameer Basha, S., and Ramakrishna, T. 2000. Survey of Golden gecko, Habitat Analysis and Conservation in Tirumala Hills. *Ecol. Env. & Cons.* 6(4): 435-439.

Rajasekhar, M. 2007. Survey of Golden gecko in Seshachalam and Nallamalai hill ranges of Andhra Pradesh. Technical report submitted to DST. Reference No.SR/FT/L-89/2004 dated 23.2.2005.

Russell, A.P. & Bauer, A.M. 1989. The Morphology of the digits of the golden gecko, Calodactylodes Aureus and its implications for the occupation of repicolous habitats. *Am, phibia-Reptilia* **10**: 125-140.

Whitaker,R.and Whitaker,Z.1978. Notes on phelosoma and amanese. The Andaman day Gecko. *J. Bombay Nat. Hist. Soc.* 75:497-499