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# New Distribution Report of a Rare 'Lined Supple Skink', *Lygosoma Lineata* (Gray, 1839) (Squamata: Scincidae: Lygosominae) in Eastern Vidarbha Region of Maharashtra

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| Received: 31 July 2023 | Accepted: 20 November 2023 | Published Online: 10 December 2023 |

**How to cite:** Bawankule V, Bhandarkar S. 2023. New Distribution Report of a Rare 'Lined Supple Skink', *Lygosoma Lineata* (Gray, 1839) (Squamata: Scincidae: Lygosominae) in Eastern Vidarbha Region of Maharashtra. J New Biol Rep 12 (1): 37 – 40.

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## ABSTRACT

Of all the living reptiles, lizards are without a doubt the most numerous. They have also drawn the interest of many herpetologists, who have devoted their studies to elucidating the realities of lizard existence. The majority of lizards are small, have a limited ability to move regionally, and become endemic to specific places. The genus *Lygosoma*, which has nine species in India, five of which are endemic, belongs to the family Scincidae, which is the biggest group of lizards. A significant diversity of reptiles can be found in Maharashtra, particularly in the Bhandara, Gondia, Chandrapur, and Gadchiroli Districts. However, there is little scientific data available about the presence of the reptilian fauna, and there is no information available about the diversity of skinks. For the first time, authors in the current research investigate the Lined Supple Skink *Lygosoma lineata* (Gray, 1839) from the Umared (Nagpur) and Bhandara districts of Maharashtra. It was regarded as the new distribution report for the species according to an examination of the literature that was accessible. This species can be found throughout peninsular India and is listed as a 'Least Concern' species on the IUCN Red List of Threatened Species.

**Key words:** New Distribution, Rare, Lined Supple Skink, *Lygosoma*, Eastern Vidarbha, Maharashtra

## INTRODUCTION

From the scorching desert to the cool forest, and from the hot lowland to the cold mountain top, reptiles have invaded a variety of habitats. There are very few studies on this fauna, despite the fact that it is highly diverse and important to the ecosystem. They have received little research due to their cryptic nature, low conspicuity, and high seasonal activity. In comparison to birds and mammals, the majorities of the reptiles is threatened and are declining more quickly (Stuart et al., 2004). According to Uetz et al., (2018), there are 10,793 species of reptiles in the world, 518 of which are found in India (Aengals et al., 2011). 202 of these

are lizards, with the exception of 75 species of Scincidae (Uetz et al., 2018). Though there are a wide variety of reptiles in Maharashtra, little is known about the reptiles that live in the eastern region viz. Bhandara, Gondia, Chandrapur, and Gadchiroli districts of the Nagpur division. These areas, which are home to a wide variety of plants and animals, might observe the emergence of new species. Only a few studies on reptiles have been recorded from the Bhandara and Gondia districts. The studies of Bhandarkar et al. (2012), Paliwal and Bhandarkar 2017a, 2017b, Deshmukh et al., (2020), Bawankule et al., (2021), and Bhandarkar and Paliwal (2021) have been published. A region in the east is well

recognized for its freshwater fishing, historical landmarks, and rice farming. Out of a total area of 9,383.6 sq. km., of which 45.81 percent is forest area, Bhandara district contains a tremendous amount of biodiversity. Out of the district's total forest area, reserved forests make up 31.24 percent, protected forests 50.41 percent, and unclassified forests 18.35 percent. It belongs to the category of "Southern Tropical Dry Deciduous Forests." With more than 1558 species, the family Scincidae is the biggest lizard family (Uetz and Hosek 2014). The subfamily Lygosominae, one of the seven recognized subfamilies, with around 52 species in five genera (Uetz and Hosek 2014). The Lined Supple Skink, *Lygosoma lineata*, was discovered in two different farmland locations in the current study: Lakhani (Bhandara) and Umred (Nagpur). In the present paper, occurrence of Lined Supple Skink and its distributional description in India is described.

## METHODOLOGY

The observation was noted, recorded, and documented with photographic evidences during the general opportunistic survey conducted over a lengthy period of time for biodiversity research. The species was sighted in the backyard of a villagers house of Murmadi situated nearby dry agriculture land and forest buffer near Lakhani (21°04'28.4"N 79°48'46.5"E), simultaneously it was also found in the agricultural land near Umred (20°48'20.4"N 79°15'10.4"E) of Maharashtra (Fig.1). The authors were able to get a juvenile *Lygosoma* species. The specimen was collected by hand and released after collecting data within one hour. The description basic characters were captured for identification with the available Standard literatures; the specimen was recognized as *L. lineata*.



**Figure 1:** Location of the occurrence area in Lakhani (Left) and Umred (Right), Maharashtra, India.

## OBSERVATION AND RESULTS

The lined supple skink is crepuscular. The length of this skink reaches about 4.5 cm. Each scale has a black dot, which together form the body's longitudinal stripes. The coloration of the body is golden. The body of the *L. lineata* is long, slender, and very thin.

### Occurrence and Habitat

The species was discovered (Fig. 1) in the backyard of a Murmadi villager's home, which is close to a dry agricultural land (21°04'28.4"N 79°48'46.5"E) (Dated on 02.07.2020). It was also discovered near Umred town (20°48'20.4"N 79°15'10.4"E) (Nagpur) (Dated on 30.06.23), a juvenile *Lygosoma* species was acquired by the authors. The specimen was identified as *L. lineata* with the help of widely read literature. The habitats in which this lizard can be found include hilly regions, coastal forests, mixed deciduous forests, grassland patches, scrublands, agricultural fields, gardens, and areas with big boulders. During the cooler hours of the day, this animal actively forages close to termite mounds. Most of the time, this lizard hides in leaf litter, rocks, or other types of wood. (Srinivasulu and Srinivasulu 2013; Vyas 2014). This species can be found in a variety of habitats, from wet to dry,

thorny to rocky to saline grasslands, and from agricultural fields to urban gardens. It is typically discovered beneath boulders, decaying logs, and thickets of dry leaf litter. It's completely unique subterranean life style, habits, and habitat adds to its rarity (Molur & Walker 1998).

### Distribution range

Nine species of *Lygosoma* are found in India, five of which are endemic (Datta-Roy et al., 2014). Both of these species are found in peninsular India and are categorized as 'Least Concern' species by the IUCN Red List of Threatened Species (Srinivasulu and Srinivasulu 2013a, b). The *L. lineata* was previously referred to as a *Chiamela lineata* from India, while no precise location was mentioned. Boulenger (1887) categorized the species under the genus *Lygosoma*. When he wrote about the Lined Supple Skink (*Chiamela lineata*) in 1839, Gray did not provide a specific site. Later, in 1887, Boulenger classified it as belonging to the genus *Lygosoma*. According to Smith (1935), this species can be found in the Bombay District between Poona and North Kanara. India is home to the endemic Lined Supple Skink. Gujarat (Rajkot, Rajkot city (Ardesana et al., 2019); Velavader, Bhavnager, Kalali, Kevadia, Samot, Ambli, Grimal, Naomiboha, Kutiyana), Maharashtra

(Sanjay Gandhi national park and Aarey milk colony Mumbai (Mirza and Sanap, 2010); Khamgaon (Bawaskar and Bawaskar, 2016); Khopoli, Kolad, Nashik, and Phansad Wildlife Sanctuary (Mirza et al., 2010), Melghat Tiger Reserve (Narasimmarajan and Mahato 2013), Goa, Karnataka, Tamil Nadu (Chidambaram), Andhra Pradesh, Telangana, Chhattisgarh, Madhya Pradesh, Jharkhand (Bisarampur), Girnar WS (Srinivasulu and Srinivasulu 2013) and West Bengal are among the Indian states where the species is found (Vyas,

2014). The currently available literature survey shows that the species' distribution is widespread and dispersed throughout peninsular India. In the present investigation the first opportunistic record of *L. lineata* juvenile (Fig. 2) was recorded from two different locations in eastern Vidarbha region. These two live specimen record shows that this species occurs not only in the Western Eastern Ghats, but also in eastern Vidarbha region in general and Bhandara and Nagpur district in particular.



**Figure 2:** A live juvenile specimen of *L. lineata* from Lakhani (left) and Umred (right)

### New Distribution

Among the 14 species of Lizards (Bhandarkar et al., 2012) only 3 species belongs to family Scincidae was recorded from Navegaon National Park, Dist. Gondia, Maharashtra, besides this there was no study found from the Bhandara and Gondia district on Skinks. This is the first ever distribution report of *Lygosoma lineata* from Bhandara and Gondia District of Maharashtra.

### ACKNOWLEDGEMENTS

The directors of the "Green Friends Nature Conservation and Multipurpose Society" and the "Aranyayatri Wildlife Foundation" have been incredibly helpful to the authors. They are also appreciative of the M. B. Patel College Principal's invaluable support throughout their academic careers.

### REFERENCES

- Aengals R, Kumar VMS, Palot MJ. 2011. Updated Checklist of Indian Reptiles. Zoological Survey of India, Chennai, 24pp.
- Ardesana R, Trivedi B, Jadav R, Jhala R, Joshi P, Bharad M, Ardesana J. 2019. Lined Skink: notes on *Lygosoma lineata* from Rajkot City, Gujarat, India. Reptile Rap 193. In: Zoo's Print 34(3): 15-18.
- Bawankule V, Bhandarkar S, Paliwal G. 2021. First Report of Square Spotted Gecko, *Hemidactylus gracilis* Blanford, 1870

(Squamata: Sauria: Gekkonidae) from Bhandara District Maharashtra, India. J New Biol Rep 10 (1): 46 – 50.

- Bawaskar PS, Bawaskar KS. 2016. Herpetofauna Diversity from Khamgaon, district Buldhana (M.S.) Central India, International J. of Life Sciences, 4 (3): 412-418.
- Bhandarkar SV, Paliwal GT. 2021. Road Kill of Snakes (Squamata: Serpents) On State Highway 276: A Case Study in Protected Forest Area of Deori Forest Range Gondia. J New Biol Rep 10 (1): 7-10.
- Bhandarkar WR, Paliwal GT, Bhandarkar SV, Kali AA. 2012. Herpetofaunal Diversity at Navegaon National Park, Distt. Gondia Maharashtra. Int. J. Environ. Rehab. and Cons III (1):42-49.
- Boulenger GA. 1890. The Fauna of British India, Including Ceylon and Burma. Reptilia and Batrachia. Taylor & Francis, London, xviii+541pp.
- Datta-Roy A, Singh M, Karanth KP. 2014. Phylogeny of endemic skinks of the genus *Lygosoma* (Squamata: Scincidae) from India suggests an in situ radiation. Journal of Genetics 93(1): 163–167.
- Deshmukh RV, Deshmukh SA, Badhekar SA, Rewatkar J, Pachare VP, Kawale SB. 2020. First records of albinism or leucism in six species of snakes from central India. Reptiles & Amphibians 26: 174–179. <https://doi.org/10.17161/randa.v26i3.14398>.

- Mirza ZA, Sanap RV. 2010. Biodiversity of Aarey milk colony and film city (2007-2009) A report submitted to Government of Maharashtra and Forest Department of Maharashtra. 51p
- Mirza ZA, Ahmed JJ, Patil S. 2010. Notes on the distribution and natural history of Lined Supple Skink *Lygosoma lineata* Gray, 1839 (Sauria: Squamata: Scincidae). *Reptile Rap* 9: 5–6.
- Molur S, Walker S. (eds.) 1998. Reptiles of India. Biodiversity Conservation Prioritisation Project (BCPP) India, Endangered Species Project - Conservation Assessment and Management Plan (C.A.M.P.) Workshops. Zoo Outreach Organisation & CBSG, India, Coimbatore, India, 175pp.
- Narasimmarajan K, Mahato S. 2013. First Record of Lined Supple Skink *Lygosoma lineata* (Gray, 1839) from Melghat Tiger Reserve, Maharashtra. *REPTILE RAP* 15,9-10.
- Paliwal GT, Bhandarkar SV. 2017. Faunistic Diversity of Serpents (Reptilia:Squamata) in Navegaon National Park of NNTR Maharashtra India with special reference to their conservation. *Indo American J. of Pharm. Sci* 4 (10): 3439-3444.
- Paliwal GT, Bhandarkar SV. 2017. *Life of Snakes*. Lambert Academic Publishing, Mauritius.
- Smith MA. 1935. *Fauna of British India including Ceylon and Burma. Reptilia and Amphibia, Volume II, Sauria*. Today and Tomorrow's Printers & Publishers, New Delhi (Indian Reprint 1974, 440pp).
- Srinivasulu C, Srinivasulu B. 2013a. *Lygosoma guentheri*. The IUCN Red List of Threatened Species. Version 2014.2. <www.iucnredlist.org>. Downloaded on 01 November 2014.
- Srinivasulu C, Srinivasulu B. 2013b. *Lygosoma lineata*. The IUCN Red List of Threatened Species. Version 2014.2. <www.iucnredlist.org>. Downloaded on 01 November 2014.
- Srinivasulu C, Das I. 2008. The herpetofauna of Nallamala Hills, Eastern Ghats, India: an annotated checklist, with remarks on nomenclature, taxonomy, habitat use, adaptive types and biogeography. *Asiatic Herpetological Research* 11: 110–131.
- Srinivasulu C, Seetharamaraju M. 2010. Reply to 'Further comments on the systematic status of *Lygosoma vosmaerii* (Gray, 1839)' by Raju Vyas. *Journal of Threatened Taxa* 2(1): 675; [http:// dx.doi.org/10.11609/JoTT.o2390.675](http://dx.doi.org/10.11609/JoTT.o2390.675)
- Stuart SN, Chanson JS, Cox NA, Young BE, Rodrigues ASL, Fischman DL, Waller RW. 2004. Status and trend of amphibian decline and extinction worldwide. *Science* 306: 1783-1786.
- Uetz P, Hošek J. (eds.) 2014. *The Reptile Database*, <http://www.reptile-database.org>. Accessed 13 July 2014.
- Uetz P, Freed P, Hošek J. (eds.) 2018. *The Reptile Database*. Available online at <https://www.reptile-database.org>, Accessed on 09 September 2018.
- Vyas, R. 2014. Notes and comments on the distribution of two endemic *Lygosoma* skinks (Squamata: Scincidae: Lygosominae) from India. *Journal of Threatened Taxa* 6 (14): 6726–6732; <http://dx.doi.org/10.11609/JoTT.o3906.6726-32>.