

## Diversity of Wall Lizards in Buldhana Town (M.S.)

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### Abstract

Lizards typically have feet and external ears. Vision, including color vision, is particularly well developed in most lizards, and most communicate with body language or bright colors on their bodies, as well as with pheromones. Buldhana is the westernmost district of Vidarbha region in Maharashtra, situated in the Tapi and Godavari basins. Indian reptiles does not provide a basis for direct verification of the information presented. In this paper annotated checklist of wall lizards in Buldana Town (M.S.) is going to report. Wall lizards were abundant and conspicuous where found. Adults and sub adults were seen almost exclusively around large cover objects (piles of logs and rocks, especially the latter) in open areas, but juvenile lizards were seen most of-ten in lightly vegetated areas, particularly tall, thin grassland were found out in the open away from cover much more frequently than adults. We almost never saw wall lizards in forests.

**KEYWORDS:** Checklist, lizards, Reptiles, annotated, juvenile, abundant, conspicuous

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### INTRODUCTION

This very agile lizard is well named as it can often be seen basking, hanging from walls or rock faces. It is either green or brown with mottled marking along its flanks, and reaches a length of about 8-inches (20cm) with the tail making up to two thirds its overall length. The sexes apart can be difficult; however the male has a larger head and a thick-set neck. Sometimes the banding along the flanks of the female is more noticeable than that of the male. Females are significantly smaller than the male. It needs wall cavities in which to shelter, but also loose stones at ground-level, under which the lizard lays its eggs. Some vegetation is required to support the food chain of invertebrates, but too much vegetation does not suit this lizard as it is a lover of sunshine and requires open bare areas. Old stone garden walls are a particularly favourite habitat, although the wall must have a mix of vegetated portions and open basking spots. There should also be good vegetation at ground level to help to support the food chain. The wall lizard is adept at catching all sorts of invertebrates, with particular favorites' being crickets and grasshoppers, spiders caterpillars and woodlice. It will eat flying insects such as flies, moths and butterflies, and can often be seen athletically jumping to attempt to catch a passing meal. The wall lizard will make use of any dry, frost-free refuge, although it has a strong preference for cracks and voids stone; whether this is in an old stone wall, a cliff face or paving slabs. If stone is unavailable, it will readily make use of any hollows found in debris or rubble. It is an accomplished digger, and will readily burrow if no natural shelter is available. The district is situated partly in Tapi basin and partly in the Godavari basin. Buldana is situated between 19°.51' and 21 °.17' North latitudes and 75°.57' and 76°.49' East longitudes. District extends over an area of 9,745 square kilometers of

which 1,558 sq. km. (1984-85) are constituted of forests, which comes to less than 16% (1984-85) of the total area of the district. The monumental works on Indian reptiles are, 'The Reptiles of British India' by Gunther (1864), 'Fauna of British India - 'Reptilia and Batrachia' by Boulenger (1890) and Smith (1931, 1935, 1943). The work of Smith stood the test of time and forms the standard work on the subject. Further contributions were made by Tiwari & Biswas (1973), Murthy (1994, 2010), Das (2003), Tikedar & Sharma (1992), Das & Bauer (2000), Das (2000), Daniel (2002), Sharma (2007), Das and Vijayakumar (2009), Giri (2008), Giri & Bauer (2008), Giri, et al (2009a), Giri et al (2009b) and Venugopal (2010). In Satara District of Maharashtra, the research belonging to lizards like-The diversity and distribution of the Six Families of the Order Squamata was studied by Sayyed and Bhagwat (2009), but no considerable work or study was undertaken in Buldhana district of Maharashtra. Species listings or checklists, which contain such primary and compiled species-occurrence data, play a vital role in providing information on the number of species occurring in different regions across different spatial scales (local, regional, national and global).

## REVIEW OF LITERATURE

Validity of the species listed in the earlier checklists of India published in the past two decades has been reviewed. Among the publications pertaining to reptilian taxonomy and species occurrences in India the works of Malcolm Smith (1931, 1935a, 1943), though more than half a century old, still remains the most important contribution (Das 2003). Over the past two decades many checklists of reptiles of India (Murthy 1985; Murthy 1990; Tikader & Sharma 1992; Das 1997a; Das 2003), sometimes including adjacent countries (Das 1994; Das 1996a; Sharma 2002) have been published. An apparent inadequacy of the above-mentioned checklists of Indian reptiles published over the past 20 years is that species with valid distributional records are not differentiated from those with questionable records.

## METHODS

In the present study, the ecology and behavior of lizard fauna in the Buldhana Town (M.S.) was examined. During the study some of the methods and protocols will be followed to study the ecology and diversity of lizards in Buldhana region (M.S). To study the ecology and diversity of lizard fauna in Buldhana Town (M.S). The study will be done in different regions of Buldhana with reference and on basis of availability of the species. After collection and detection it will be photographed and identified with the help of the different bases like phenotypic characters like body, color, shape and size for the identification and study of collected and observed species keys and methods like Daniel (2002) will be used. The statistical analysis of diversity will be made by computer program PAST (Hammer *et al.* 2001).

## OBSERVATION:

During 2012-13 present study was carried out and following 08 species of wall lizards are observed. Based on the distributional records available, validity of the species listed in the earlier checklists of India published in the past two decades has been reviewed.

Sr.No.	Species
1	<i>Gehyra mutilata</i>
2	<i>Gekko gekko</i>
3	<i>Gekko smithi</i>
4	<i>Hemidactylus aaronbaueri</i>
5	<i>Hemidactylus bowringii</i>
6	<i>Hemidactylus flaviviridis</i>
7	<i>Hemidactylus giganteus</i>

## RESULTS AND DISCUSSION

*Gehyra mutilata*, *Gekko gekko* and *Gekko smithi* are very adaptable to its surroundings, although it usually prefers woodlands, rocky areas, and human dwellings. *Hemidactylus* are commonly found in Gardens and rocky areas also in agricultural fields. The common wall lizard is a thing of great beauty when seen like this. The ecological impacts of having perhaps one-quarter million introduced lizards running about can't be good, but it is difficult to ascertain with certainty exactly what damage they have done. Wall lizards, given their success, must have had a role in reducing native lizards such as eastern fence lizard and five-lined skink, which are rare or absent where the wall lizard occurs although both used to occur in this area. Brown (1992) made a plea for standardizing the distributional records of Indian reptiles almost two decades ago. However, drawing a standardized format for publishing species checklists is an important task to be undertaken, in order to verify and validate the species occurrence data and also to prevent perpetuation of mistakes. The Conservation Assessment and Management Plan (CAMP) for Indian reptiles (Molur & Walker 1998) which formed the IUCN red list of Indian reptiles used the checklist list provided by Das (1997a) as the starting reference point for the number of reptiles in India. However, Das (1997a) contained many erroneous inclusions and omissions and the standard of reporting does not provide means to directly verify the quality of information presented.

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