

NEW RECORD OF AGAMID LIZARD *Trapelus agilis* (OLIVIER, 1804) (SQUAMATA: AGAMIDAE) FROM GUJARAT, INDIA

Pankaj Joshi,¹ Chetan Misher,² and Ovee Thorat,^{2,3*}

Submitted September 12, 2015

We report sightings of the agamid lizard *Trapelus agilis* (Olivier, 1804) commonly known as the Brilliant Ground Agama, from the state of Gujarat in India. *Trapelus agilis* is known to be present in the state of Rajasthan from India, but its presence in Gujarat had not been confirmed due to absence of substantial records beside one old record from 1880s. We report sightings of *T. agilis* on two separate occasions in the years 2014 and 2015 from the region of Banni grasslands in Kachchh district of Gujarat. The observations and the nature of the habitat are described in detail. These recent sightings prompt for a systematic survey of *T. agilis* in the Kachchh landscape in India.

Keywords: *Trapelus agilis*; Squamata; Agamidae; Banni Grasslands; India.

Trapelus agilis (Olivier, 1804) is a small reptile from the family Agamidae. It is one of the four species of Agamidae found in the desert region of India. The species is native to central and south Asia, with substantial records from Pakistan and Iran (Khan, 2004; Heidari and Kami, 2009). In India, *T. agilis* is known to be distributed only in the sandy deserts of Rajasthan in a habitat comprising of sparse xerophytic vegetation.

T. agilis is known to prefer a habitat with thorny shrubs and bushes which provide safety in terms of shelter and access to food in the form of insects which visit these plants (Bhatnagar et al., 2012). Females are known to make burrows under soil. Males of the species are larger than females and live under rocks or bushes. Although *T. agilis* is only found in the desert habitats of Rajasthan, some parts of the neighboring state of Gujarat hold similar habitats and arid conditions. Yet, there have been no published records of *T. agilis* from Gujarat since the single record from late 1880s (Murray, 1886). Presence of *T. agilis* in Gujarat awaited confirmation due to lack of further records and comprehensive surveys (Vyas, 2000). Recently, it was assumed that Gujarat does not

harbor this species based on absence of new records from the region (Patankar et al., 2014).

We report the presence of *T. agilis* in Gujarat from the region of Banni grasslands based on two direct observations that are backed up by photographs. Banni is one of the largest arid grasslands in Asia with an area of over 3000 km². It is situated on the northern border of Bhuj taluk, in Kachchh district of Gujarat. Located from 23°19' to 23°52' N and from 68°56' to 70°32' E, it is in the vicinity of India – Pakistan border, forming the southern portion of the Greater Rann of Kutch.

The vegetation in Banni comprises of shrubs such as *Suaeda fruticosa* and *Capparis decidua*, grasses like *Aeluropus lagopoides*, *Dichanthium annulatum*, *Ochthochloa compressa*, and some sedges (Patel et al., 2012). Over the last few decades, an introduced plant species from South America, *Prosopis juliflora*, which is a fast growing thorny shrub, has taken over a large part of the Banni grasslands. Yet, the most saline parts of Banni called as *Rann* have relatively scarce *Prosopis juliflora* and are mainly dominated by *Suaeda* shrubs and sedges.

On 25 April 2014, while conducting vegetation related fieldwork in the Banni grasslands of Gujarat, we observed a lizard with light blue coloration near a bush of *Suaeda fruticosa*. The lizard seemed to be using the vicinity of *Suaeda* bush for protection. We clicked some photographs of the lizard, from which it was later identified as the *T. agilis* also known as the Brilliant Ground Agama commonly. Another individual was seen on a separate occasion on 22 August, 2015, in a similar

¹ Sahjeevan, A175, Jalaram Society, Bh. Vishwa Mangal Apartment, Vijay Nagar, Bhuj, Kutch, Gujarat 370001, India; e-mail: joshi.pn.sahjeevan@gmail.com

² Ashoka Trust for Research in Ecology and the Environment, Royal Enclave, Srirampura, Jakkur Post, Bangalore, Karnataka 560064, India; e-mail: chetanmisher@gmail.com

³ Manipal University, Manipal, Madhav Nagar, Near Tiger circle, Manipal, Karnataka 576104, India; e-mail: ovee.thorat@atree.org

* Corresponding author.



Fig. 1. *Trapelus agilis* near *Suaeda fruticosa* bush in Banni grasslands.



Fig. 2. Top view of *Trapelus agilis* near *Suaeda fruticosa* bush in Banni grasslands.

habitat, although ~35 km away from the earlier location. This individual had an even brighter, blue and orange body coloration. This agama, aptly suiting its name *T. agilis*, did not offer us good images as it raced to the nearest patch of *Suaeda* bushes with agility, and was not to be found despite a thorough search of the area.

The sightings had taken place while conducting ecological surveys in the region that were not focused on reptiles but rather on vegetation of the area, and hence these were opportunistic sightings. Both of the sightings had taken place in very similar habitat conditions dominated by *Suaeda* shrubs in extremely saline land. These sightings indicate that the vegetation in the arid landscape of Kachchh, which is composed of thorny and succulent shrubs might be a suitable habitat for this species. A further systematic survey could ensure and update the status and distribution of the species in the Kachchh landscape of Gujarat.

Acknowledgments. We are grateful towards Sahjeevan, BPUMS (Banni Pashu Uccherak Maldhari Sanghtan) and RAMBLE (Research and Monitoring in the Banni Landscape) based in Bhuj, Kachchh and Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore for support.

REFERENCES

- Bhatnagar C., Meena, S. S., and Pandey V. N.** (2012), "Habitat Preference of *Trapelus agilis* Olivier in Thar Desert of Jaisalmer, India," *Russ. J. Herpetol.*, **19**(3), 207 – 211.
- Heidari N. and Kami H. G.** (2009), "Lizards of the Gando Protected area in Sistan and Baluchestan Province, south-eastern Iran," *Iranian J. Animal Biosyst.*, **5**(2), 57 – 64.
- Khan M. S.** (2004), "Annotated Checklist of Amphibians and Reptiles of Pakistan," *Asiatic Herpetol. Res.*, **10**, 191 – 201.
- Murray J. A.** (1886), *The Reptiles of Sind*, The Education Society's Press, Bombay.
- Patel Y., Dabgar Y. B., and Joshi P. N.** (2012), "Distribution and diversity of grass species in Banni Grassland, Kachchh District, Gujarat, India," *Int. J. Sci. Res. Rev.*, **1.1**, 43 – 56.
- Patankar P., Singh A. P., Desai I., and Suresh B.** (2014), "Species richness of Sauria in Gujarat with a taxonomic key to the identification of their families and species," *Electr. J. Environm. Sci.*, **7**, 27 – 36.
- Vyas R.** (2000), "A review of reptile studies in Gujarat state," *Zoos' Print J.*, **15**(12), 386 – 390.