



Notes on the Natural History and Distribution of the Graceful Racer, *Platyceps gracilis* (Günther 1862), in Gujarat, India

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The Graceful Racer (*Platyceps gracilis*) is a rare, non-venomous snake endemic to India (Whitaker and Captain 2004). Günther (1862) described *Platyceps gracilis* as *Zamenis gracilis* based on specimens found in the Western Ghats of Poona, Poona District, Maharashtra. In India, *P. gracilis* is known from Maharashtra, Rajasthan, Gujarat, and Madhya Pradesh (Smith 1943; Whitaker and Captain 2004; Chandra and Gajbe 2005; Sharma and Nagar 2007; Vyas et al. 2011; Sharma et al. 2012; Walmiki et al. 2012; Patel and Vyas 2019), where it occurs in scrubland, dry deciduous forests, rock fissures, and recently created urbanized areas. It lays eggs and feeds primarily on geckos and skinks (Srinivasulu et al. 2013). It is listed as Data Deficient on the IUCN Red List (Srinivasulu et al. 2013) and has recently been elevated to Schedule II of the Indian Wildlife (Protection) Act, 1972, amended in 2022 (Ministry of Law and Justice 2022). Almost nothing is known about its natural history. Herein we document microhabitats, feeding behavior, and new distribution records of the species from Gujarat, India.

At 1119 h on 20 September 2019, a snake rescued from the Sardar Patel Zoological Park was initially assumed to be a kukri snake (*Oligodon* sp.). However, a careful inspection revealed it to be a Graceful Racer. At 1142 h on 14 March 2020, two Graceful Racers (Fig. 1) were rescued from the Valley of Flowers near the Statue of Unity. These were the first of 15 new observations we collated from various locations (Table 1; Fig. 2). Photographic vouchers have been accessioned at the University of Kansas Biodiversity Institute Digital Archive (KUDA 13942).

From 2019 to 2022, 3–4 persons conducted opportunistic surveys at dusk and dawn in nearby areas, mostly in the Narmada District. On 8 September 2020 near the Narmada Dam, we encountered an individual feeding on a Little Indian Field Mouse (*Mus booduga*). The snake had grabbed the mouse by the abdominal region, constricted the prey, and began to swallow the mouse headfirst (Fig. 1). We also

recorded snakes feeding on a Garden Lizard (*Calotes vultuosus*) and a Bronze Grass Skink (*Eutropis macularia*) (Fig. 1).

Patel and Vyas (2019) recently gathered evidence and specimens from southern, central, and northern Gujarat, although no specific locations are mentioned in their report.



Figure 1. Two Graceful Racers (*Platyceps gracilis*) rescued from the Valley of Flowers, Kevadiya, Garudeshwar Taluka, Narmada District, Gujarat, India (A); a Graceful Racer feeding on a Little Indian Field Mouse (*Mus booduga*) at the Narmada Dam, Kevadiya, Garudeshwar Taluka, Narmada District, Gujarat, India (B); a dead Graceful Racer found near the Statue of Unity, Kevadiya, Garudeshwar Taluka, Narmada District, Gujarat, India (C); a Graceful Racer feeding on a Bronze Grass Skink (*Eutropis macularia*) in the Shoolpaneshwar Wildlife Sanctuary, Vandari, Dediapada Taluka, Narmada District, Gujarat, India (D). Photographs by Ravi Patel.

Table 1. Records of Graceful Racers (*Platyceps gracilis*) from eastern Gujarat (2019–2022) with notes on microhabitats and feeding behavior.

Date	Time (h)	Location	Microhabitat	Coordinates	Remarks
20 Sep 2019	1119	Sardar Patel Zoological Park, Kevadiya, Garudeshwar Taluka, Narmada District	Human habitation, dry deciduous vegetation, and small boulders	21.834741 N, 73.736674 E	One individual rescued
14 Oct 2019	1737	Sardar Patel Zoological Park, Kevadiya, Garudeshwar Taluka, Narmada District	Human habitation, dry deciduous vegetation, and small boulders	21.835980 N, 73.736408 E	One individual rescued
25 Oct 2019	2042	Sardar Patel Zoological Park, Kevadiya, Garudeshwar Taluka, Narmada District	Human habitation, dry deciduous vegetation, and small boulders	21.835483 N, 73.734467 E	One individual rescued
14 Mar 2020	1142	Valley of Flowers, Kevadiya, Garudeshwar Taluka, Narmada District	Human habitation	21.833386 N, 73.733311 E	Two individuals rescued
15 Mar 2020	0121	Sardar Patel Zoological Park, Kevadiya, Garudeshwar Taluka, Narmada District	Human habitation, dry deciduous vegetation, and small boulders	21.839361 N, 73.733623 E	One individual was seen hiding under the rocks
18 Aug 2020	1730	Sardar Patel Zoological Park, Kevadiya, Garudeshwar Taluka, Narmada District	Human habitation, dry deciduous vegetation, and small boulders	21.836466 N, 73.734307 E	One individual rescued
29 Aug 2020	1705	Zarwani, Nandod Taluka, Narmada District	Dry deciduous forest and heavy boulders	21.813037 N, 73.703448 E	One individual observed in the field
01 Sep 2020	1038	Sardar Patel Zoological Park, Kevadiya, Garudeshwar taluka, Narmada District	Human habitation, dry deciduous vegetation, and small boulders	21.837286 N, 73.732407 E	One individual was seen basking on a shrub
08 Sep 2020	2107	Narmada Dam, Kevadiya, Garudeshwar Taluka, Narmada District	Dry deciduous vegetation and heavy boulders	21.834428 N, 73.745087 E	One individual was seen feeding on a Little Indian Field Mouse (<i>Mus booduga</i>)
11 Sep 2020	1630	Statue of Unity, Kevadiya, Garudeshwar Taluka, Narmada District	Human habitation, dry deciduous vegetation, and small boulders	21.837814 N, 73.727949 E	Dead specimen (total length 36.5 cm)
19 Sep 2020	2116	Navagam, Kevadiya, Garudeshwar Taluka, Narmada District	Human habitation, dry deciduous vegetation, and small boulders	21.846374 N, 73.716915 E	One individual was seen feeding on a Garden Lizard (<i>Calotes vultuosus</i>)
27 Sep 2020	1419	Sardar Patel Zoological Park, Kevadiya, Garudeshwar Taluka, Narmada District	Human habitation, dry deciduous vegetation, and small boulders	21.835274 N, 73.733454 E	One individual rescued
24 Sep 2021	1250	Jambughoda Wildlife Sanctuary, near Zand, Jambughoda Taluka, Panchmahal District	Dry deciduous forest and hilly terrain	22.368346 N, 73.654945 E	One individual was seen moving inside the rock crevices (total length 75.5 cm)
03 Oct 2021	1922	Shoolpaneshwar Wildlife Sanctuary, Vandari, Dediapada Taluka, Narmada District	Dry deciduous forest and hilly terrain	21.762750 N, 73.789363 E	One individual was seen feeding on a Bronze Grass Skink (<i>Eutropis macularia</i>)
03 Feb 2022	1814	Sardar Patel Zoological Park, Kevadiya, Garudeshwar Taluka, Narmada District	Human habitation, dry deciduous vegetation, and small boulders	21.842316 N, 73.734306 E	One individual observed in the field

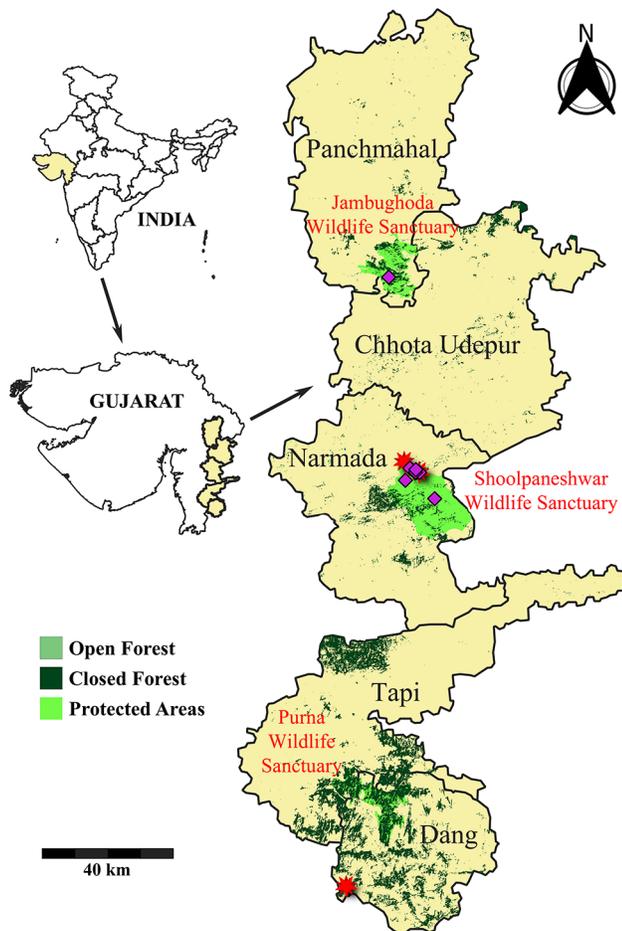


Figure 2. Map showing records of the Graceful Racer (*Platyceps gracilis*) in protected and unprotected areas in eastern Gujarat, India. Previously documented localities are indicated by red asterisks and new records recorded herein by purple diamonds.

Until now, *P. gracilis* had been confirmed from two locations in Gujarat, the Narmada Dam (Vyas et al. 2011) and Vandsa National Park (Walmiki et al. 2012). The new data reported

herein suggest that the species’ range is more extensive than previously thought, including much of the Narmada District and several protected areas (Fig. 2). Also, our observations of feeding behavior on previously unreported lizards and rodents add to the sparse information on feeding ecology.

Acknowledgements

We are grateful to the Gujarat Forest Department for support and guidance and to animal rescuers (Jaydeep, Ajay, Arjun, Dilip, Bhadres and Dharmendra) for sharing their data.

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