



Russell's Vipers, *Daboia russelii* (Shaw and Nodder 1797), on the Rushikulya Coast, Odisha, India

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Russell's Vipers (*Daboia russelii*), heavy-bodied ambush predators identified by three longitudinal series of large, black-margined brown spots or blotches (Uetz et al. 2026), are habitat generalists found in dry open grassy areas, scrub jungle, dry riverbeds, coastal habitats at low elevations (0–120 m), and anthropogenic landscapes such as plantations (Auffenberg 1980; Glaudas 2021a). This species has a discontinuous distribution in southeastern Asia (Thorpe et al. 2007; Uetz et al. 2026), with gaps attributable to habitat preferences and Pleistocene changes in sea level and climate (Heaney 1986; Wüster et al. 1992). These snakes are widely distributed across India, primarily in drier seasonal habitats at elevations as high as 2,100 m (Daniel 2002); they appear, however, to be scarce in true deserts (Kumawat and Purohit 2020). We herein document an encounter with a Russell's Viper and three previous sightings on the Rushikulya Coast near Ganjam, Odisha, India (Fig. 1), where *D. russelii* appears to be abundant in *Casuarina* plantations (Glaudas 2021b). Also, local snake rescuers release many rescued snakes in the area since public access is restricted.

The first sighting was at 1745 h on 19 October 2020 at New Podampeta near the intertidal zone (Fig. 2A), where the viper had been moving toward the sea until the rising tide caused it to turn around. At 1140 h on 25 January 2021, we encountered a second *D. russelii* (Fig. 2B) near the backwaters at Gokharkuda, approximately 1 km from the previous location. A third viper was sighted on 3 March 2023, at Old Podampeta.

At 2245 h on 24 February 2024, while observing nesting turtles in the Rushikulya turtle rookery at Old Podampeta, Ganjam, Odisha, India (19.41678, 85.10699), we encountered a Russell's Viper (~1 m total length) (Fig. 2C–D) about 1 m away above the high tide line near the carrion of a female Olive Ridley Sea Turtle (*Lepidochelys olivacea*). The beach was flat with scattered sand dunes 1–2 m high and the nearby

dominant vegetation was composed of *Casuarina* plantations, 40 m away from the coastline with scattered *Ipomoea* and *Cyprus*. The nearest human habitation (Ganjam Township) was about 1 km away.

Occurrences of *D. russelii* on Indian beaches appears to be more widespread than indicated in the literature, with reports from beaches of Goa (Trivedi and Desai 2019) and Kerala (Sarlin et al. 2024) and anecdotal observations from Rameshwaram (R. Whitaker, pers. comm.) and Goa (A. Captain, pers. comm.) documenting the presence of the species on Indian coasts.

We do not know why *D. russelii* ventures into intertidal zones. The proximity of the beaches where Russell's Vipers were encountered to the mouth of the Rushikulya River

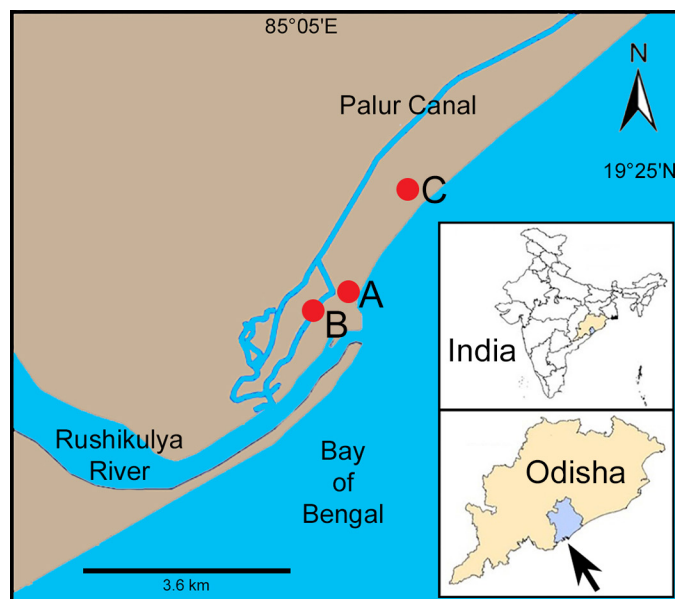


Figure 1. The Rushikulya Coast in Ganjam District, Odisha, India. Red dots mark locations (see text and Fig. 2) where Russell's Vipers (*Daboia russelii*) were recorded.

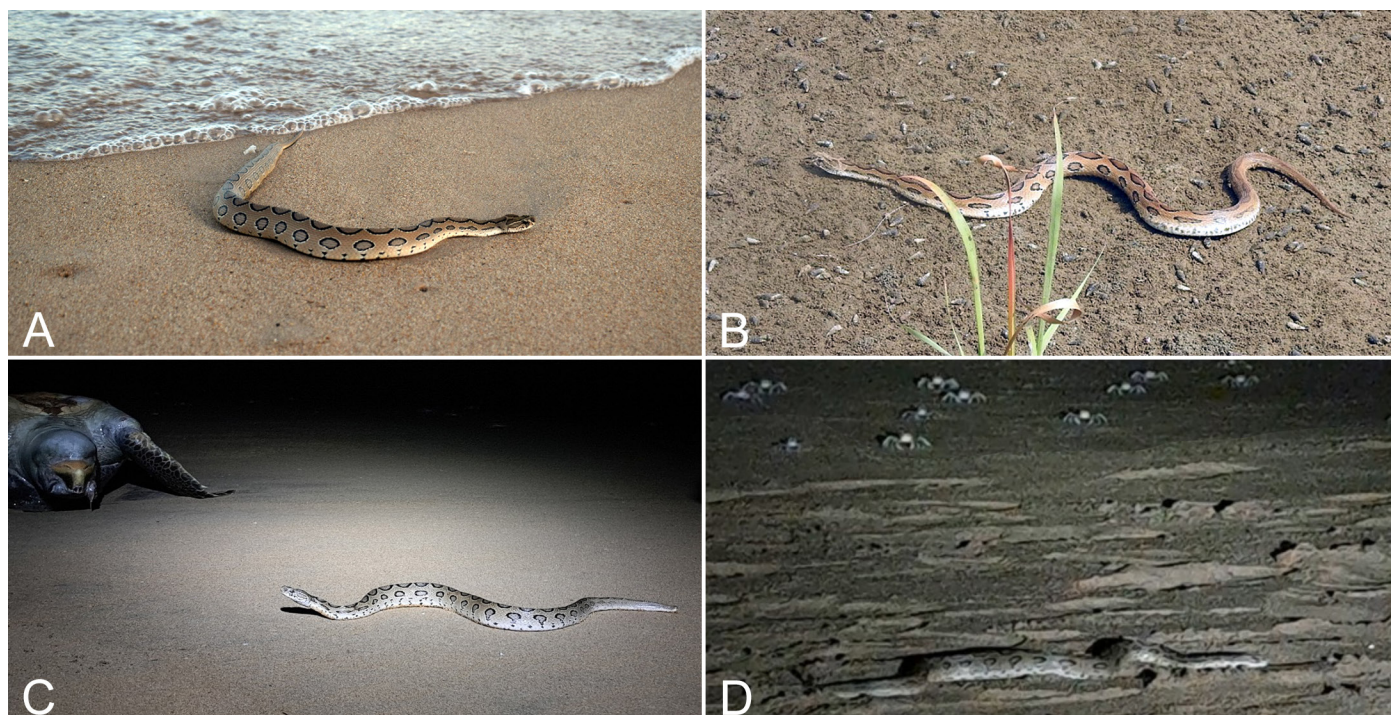


Figure 2. Russell's Vipers (*Daboia russelii*) encountered near Ganjam, Ganjam District, Odisha, India, at 1745 h on 19 October 2020 at New Podampeta (A), at 1140 h on 25 January 2021 at Gokharkuda (B), and at 2245 h on 24 February 2024 at Old Podampeta near carrion of an Olive Ridley Sea Turtle (C); Ghost Crabs (*Ocypode* sp.) aggregated near the carrion as the snake moves away from the shore (D). Photographs by A.K. Das (A–B) and Khushi Soni (C–D).

suggests the possibility of snakes being washed or rafted downstream and onto the coast. We, however, propose that they intentionally frequent beaches to hunt for scavengers of intertidal carrion and detritus or to themselves scavenge those resources. Many viperids are known to scavenge (e.g., DeVault and Krochmal 2002; Lillywhite and McCleary 2008), although no records of which we are aware have documented scavenging by Russell's Vipers. If true, however, the presence of these snakes on beaches and the utilization of marine resources in intertidal zones reveals a previously unrecorded resourcefulness of the species.

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