

Entanglement in Fishing Nets: Deaths of Indian Rock Pythons (*Python molurus*)

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The Indian Rock Python, *Python molurus* (Linnaeus 1758), is a large non-venomous snake found throughout most of tropical and subtropical southern and southeastern Asia. The species is widely distributed on the Indian Subcontinent (Smith 1943; Das 2002; Whitaker and Captain 2008) and is frequently encountered in Gujarat State (Patel and Vyas 2019). This species has been categorized as Schedule-I in the Indian Wildlife Protection Act of 1972, is listed in CITES (Convention on International Trade in Endangered Species) Appendix I (CITES 2016), but has not been assessed for the IUCN Red List since

the elevation of *P. bivittatus*, which until recently was considered a subspecies of *P. molurus* (Jacobs et al. 2009).

During recent field surveys, we encountered two dead Indian Rock Pythons in wetlands near the villages of Kangam and Kaveli, Jambusar, Bharuch District, Gujarat, India. On 7 May 2019, we found a carcass of a python at Khet Talavadi (22°08'45.29"N; 72°40'24.01"E), Kangam Village. The snake was about 3.0 m in length and appeared to be entangled in fishing-net debris (Fig. 1). Another 3.6-m long freshly dead python (Fig. 2) also was entangled in fishing net debris at the village pond of Kaveli (22°08'00.68"N; 72°42'42.51"E). This small wetland is 5.5 km from the site of first incident. Indian Rock Pythons are not commonly found at these sites, but sightings are more frequent following floods, and the published literature (Vyas 2002; Patel and Vyas 2019) has documented a notable number of pythons from the Bharuch District of Gujarat.

Local residents told us that these wetlands were used as fishing sites by small-scale fisheries. Both incidents involve the death of snakes entangled in fishing nets, which traps the pythons until they drown. Another possibility, however, is that the pythons became trapped in the nets during fishing and were killed by the fishermen, who discarded the nets along with the dead pythons. A number of reports (e.g., Stuart et al 2001; Kapfer and Paloski 2011) have recorded wildlife entangled in discarded plastic nets. Escape from the nets is difficult, especially those comprised of monofilament line (Butterworth et al. 2012).

The deaths of two large pythons speaks to a need for awareness programs for the local fishing communities regarding the use and safe disposal of nets and means of recovering trapped animals. Too many incidents involve fearful laymen killing pythons and other snakes due to a lack of knowledge about their ecological importance. Like other protected species (Bhatt et al. 1999), pythons remain unsafe even in protected areas (Vyas 2000; Guptha 2013).



Fig. 1. Panoramic view of Khet Taladi, Kangam, Bharuch District, Gujarat, India (A) and a dead Indian Rock Python (*Python molurus*) entangled in fishing net debris (B, C). Photographs by Pradhyuman Sindha.



Fig. 2. The village pond in Kaveli, Bharuch District, Gujarat, India with a freshly dead Indian Rock Python (*Python molurus*) entangled in fishing net debris (A, B, C). Photographs by Pradhyuman Sindha.

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