

Distribution and habitats of the spider-tailed horned viper *Pseudocerastes urarachnoides*

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INTRODUCTION & AIM

The genus *Pseudocerastes*, Boulenger 1896 (Viperidae) with horn-like projections from scale on either side above the eye; it comprised of three recognized and valid species: the Field's horned viper *Pseudocerastes fieldi* Schmidt, 1930 in Sinai Peninsula (Egypt), Jordan, west of Iraq, Saudi Arabia, Syria; the Persian horned viper *P. persicus* (Duméril, Bibron & Duméril, 1854) in northeastern of Iraq, Iran, Oman, United Arab Emirates, Afghanistan, and Pakistan; and the spider-tailed horned viper *P. urarachnoides* Bostanchi, Anderson, Kami & Papenfuss, 2006 in Iran and Iraq (Fig. 1)

METHOD

During a study of the herpetofauna of the western Iranian plateau from March 2024 to September 2025, we observed three specimens of the spider-tailed horned viper *P. urarachnoides* from Kermanshah Province, western Iran.

RESULTS

Observations were made between 09:00 and 11:00 under an ambient temperature of 27 °C, aligning with the species' activity patterns during warmer morning hours. These findings significantly expand the known ecological and elevational range of *P. urarachnoides*, highlighting its greater adaptability than previously assumed; the open structure, light-colored limestone substrate, sparse vegetation, and, particularly, the steep-to-vertical slopes likely optimize caudal luring efficacy for ambush predation while enhancing camouflage (Fig. 2, 3) against visually oriented predators and prey.



Fig. 1. Habitat and camouflage of alive adult specimen of the horned spider-tailed viper, *Pseudocerastes urarachnoides* (Photo: Morad Besharati).



Fig. 2. The spider tailed of alive adult specimen of *Pseudocerastes urarachnoides*.

DISCUSSION

These new sites differ markedly from previously reported localities: vegetation is sparse and dominated by annual herbaceous plants and scattered low shrubs with a complete absence of oak trees; substrates consist exclusively of limestone sediments; elevations range from approximately 300–700 meters above sea level (substantially lower than most known records); and slopes are extremely steep, reaching up to 90° (near-vertical rocky mountain faces) (Chefaoui et al., 2018).

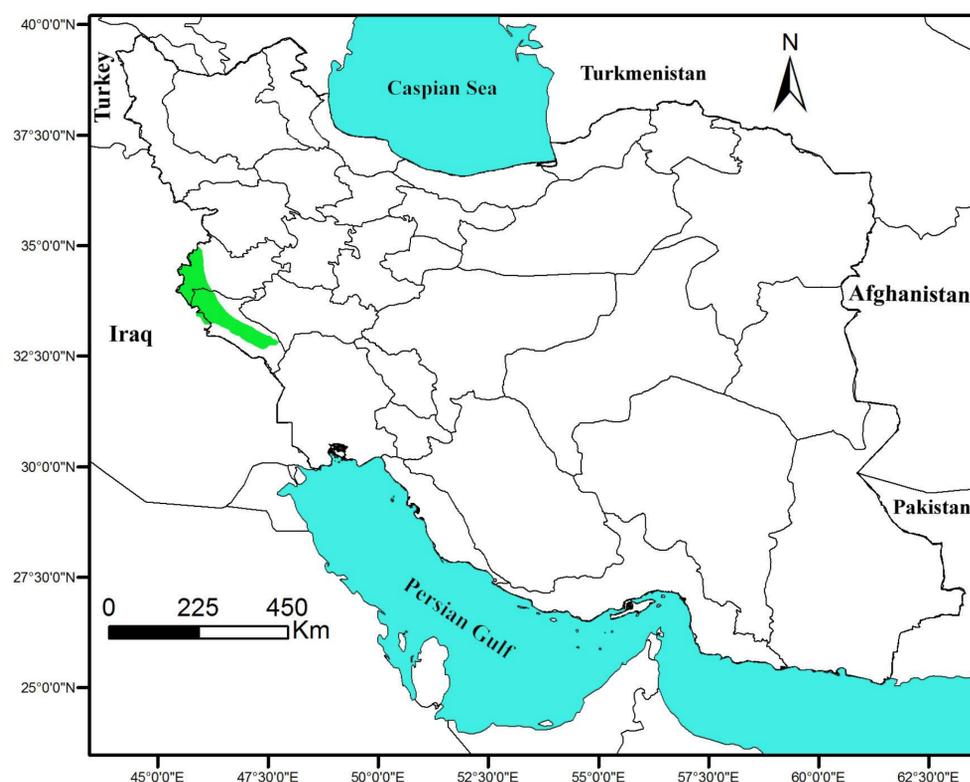


Fig. 1. Zoogeographical distribution of the spider-tailed horned viper *P. urarachnoides* (green color)



Fig. 4. Road construction in the habitat of horned spider-tailed viper, *Pseudocerastes urarachnoides* (Photo: Morad Besharati).

CONCLUSION

vulnerable low-elevation habitats face severe threats, primarily from road construction (Fig. 4), which causes direct habitat destruction, ecosystem fragmentation, and restricted resource access, potentially accelerating local population declines. This study underscores the urgent need for targeted conservation measures, including protection and monitoring of these newly discovered steep-slope, low-elevation populations in Kermanshah Province.

FUTURE WORK / REFERENCES

Bostanchi, H., Anderson, S. C., Kami, H. G., & Papenfuss, T. J. (2006). A new species of *Pseudocerastes* with elaborate tail ornamentation from western Iran (Squamata: Viperidae). *Proceedings of the California Academy of Sciences*, 57, 443–450

Chefaoui, R. M., Hosseinzadeh, M. S., Mashayekhi, M., Safaei-Mahroo, B., & Kazemi, S. M. (2018). Identifying suitable habitats and current conservation status of a rare and elusive reptile in Iran. *Amphibia-Reptilia*, 39, 355–362.

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