

The missing puzzle piece: A striking new snake species from the Arabian Peninsula

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Rhynchocalamus hejazicus pictured in life. Credit: Fulvio Licata. CC-BY4.0.

Researchers have discovered a new distinctive and secretive snake species in the Hejaz region of Saudi Arabia.

Rhynchocalamus hejazicus is a small [snake](#) bearing a black collar and reddish coloration, distinguishing it from its closest relatives. A uniformly black "melanistic morphotype" of the species has also been

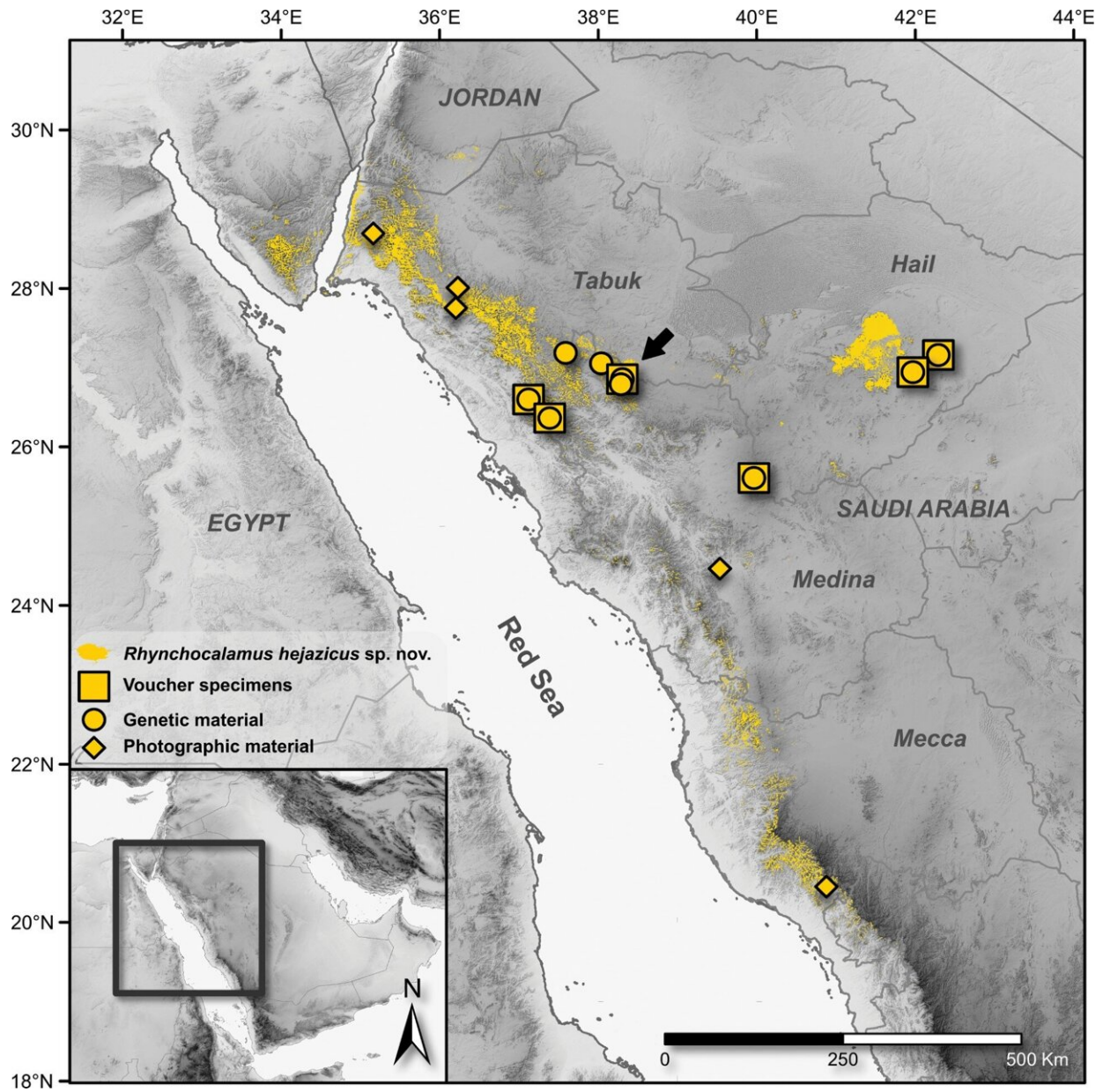
discovered.

The new species is widely distributed and fills much of the existing distribution gap between the Levant and the coastal regions of Yemen and Oman for the genus *Rhynchocalamus*.

An international team led by scientists from the Centro de Investigação em Biodiversidade e Recursos Genéticos (CIBIO), Portugal, and Charles University, Czech Republic, [published](#) their discovery in *Zoosystematics and Evolution*.

Rhynchocalamus hejazicus inhabits sandy and stony soils with varying vegetation cover and can be found in habitats disturbed by humans, suggesting that the species should not be categorized as threatened according to IUCN criteria.

Little is known about the species' natural history and behavior, and further monitoring and [conservation efforts](#) are necessary to better understand its ecological dynamics and natural history. However, it appears that *Rhynchocalamus hejazicus* has mainly nocturnal activity as all individuals were encountered active at night.



Habitats of *Rhynchocalamus hejazicus*: Top: Shaaran NR, AIUla County, Medina Province, KSA; bottom left: Wadi Al-Azraq, Jabal Salma, Hail Province, KSA; bottom right: Harrat Khaybar, Hail Province, KSA. Credit: Fulvio Licata and Adel A. Ibrahim. CC-BY4.0



Black 'melanistic morphotype' of *Rhynchocalamus hejazicus* pictured in life.
Credit: Fulvio Licata. CC-BY4.0

"The discovery of a new species of snake widespread in the central-western regions of Saudi Arabia is surprising and gives rise to the hope that more undiscovered species might be present in the Kingdom," the authors say.

Most of the observations of the [new species](#) are the result of intense sampling efforts in a vast area around the ancient Arabic oasis city of AlUla, fostered by the Royal Commission for AlUla, Saudi Arabia, which is pushing forward scientific activities and explorations to promote conservation in the region.

The intensifying of field studies in Saudi Arabia in the last years is leading to fruitful collaborations and such important findings as this study, to which many experts from multiple teams have contributed significantly.

The discovery of such a distinctive snake highlights the existing gap in the description of rare and secretive species, and the need to enhance sampling efforts and monitoring strategies to fully capture [species diversity](#) in unexplored areas.

More information: Fulvio Licata et al, The missing piece of the puzzle: A new and widespread species of the genus *Rhynchocalamus* Günther, 1864 (Squamata, Colubridae) from the Arabian Peninsula, *Zoosystematics and Evolution* (2024). [DOI: 10.3897/zse.100.123441](https://doi.org/10.3897/zse.100.123441)

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