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- The role of bromeliad structural complexity on the presence, spatial distribution and predator avoidance in *Tityus neglectus* (Scorpiones: Buthidae)
- Another case of regeneration of body parts in scorpions

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Hiding in water pools in Bromeliads

[ece3.11522.pdf](#)

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Vegetation is an important part of the scorpion's habitat in creating an optimal micro-climate and/or providing hiding places for predator avoidance. Maria Carolina de Oliveira Souza and co-workers have recently published an article on the use of **Bromeliads** by the buthid *Tityus neglectus* Mello-Leitao, 1932.

One of the discoveries in this study is that the scorpions used rainwater pools collected in the rosette-like leaf arrangements of this plant to hide for predators. This was done by diving into the pools and be completely submerge for several minutes. This has not been reported in scorpions previously.

Abstract:

The spatial arrangement of organisms is significantly influenced by the structure of vegetation. Bromeliads, characterized by a remarkable architectural design featuring rosette-like leaf arrangements for rainwater storage, act as habitats for various organisms. These organisms use bromeliads for shelter, foraging, reproduction and the supply of nutrients and moisture. This study investigated how specific aspects of bromeliad structure, such as the number, width and length of leaves, impact the behaviour and distribution patterns of the bromelicolous scorpion *Tityus neglectus*. In the examination of 110 sampled bromeliads, 33 scorpions were recorded, resulting in an occupancy rate of 30%. The likelihood of scorpion occurrence was associated with the plant's structure. The length and coefficient of variation in the width of leaves appeared as the main predictors, positively influencing scorpion presence while the number of leaves exhibited a negative relation with scorpion occurrence. The distribution of scorpions was uniform across the spatial design of bromeliads. Furthermore, *T. neglectus* demonstrated the ability to utilize water accumulated in the bromeliad to evade potential predators, submerging itself for, on mean, almost 8 min. We concluded that bromeliad structure is essential in shaping the distribution patterns and anti-predatory behaviour of *T. neglectus*.

Reference

de Oliveira Souza MC, Foerster SÍA, Salomão RP, Souza-Alves JP, de Moura GJB, Lira AFdA, et al. The role of bromeliad structural complexity on the presence, spatial distribution and predator avoidance in *Tityus neglectus* (Scorpiones: Buthidae). *Ecology and evolution*. 2024;14(6):e11522. [Open Access]

Another case of
regeneration of body parts in
scorpions

A new case of pedipalp
regeneration in *Scorpio
kruglovi* Birula, 1910
(Scorpiones: Scorpionidae)

A new case of pedipalp regeneration in -i-Scorpio kruglovi--i- Bi.pdf

<https://scorpion.kkomodo.kr/pdfjs/web/viewer.html?file=https://scorpion.kkomodo.kr/attachments/6>

Morphological anomalies in scorpions are well known. Some are inborne teratologies, others are caused by a failed molting process or due to accidents from predators attacks and similar. Scorpions can survive the loss of or damages to some of the appendages, but loss of the last part of the tail will usually cause death after a certain time as the anal organs are gone and the scorpion will die of constipation.

Lost or damaged appendages can be regenerated completely or partly in scorpions during future molts. Ersen Yagmur and co-workers have recently published a case of regeneration of a part of the pedipalp in *Scorpio kruglovi* Birula, 1910.

Abstract:

A new case of pedipalp regeneration is described and illustrated in a subadult female of *Scorpio kruglovi* Birula, 1910. A small, regenerated part of chela is observed on the anterior aspect of a normally developed right patella. This is the second published case of pedipalp regeneration.

Reference:

Yağmur EA, Kılıç MS, Güneş E. A new case of pedipalp regeneration in *Scorpio kruglovi* Birula, 1910 (Scorpiones: Scorpionidae). Euscorpius. 2024;2024(390):1-3. [Open Access]