Supplemental Material

Research Article

Love bites – Do venomous arachnids make safe pets?

Tobias J. Hauke 1,#, and Volker Herzig 2,#,\*

1 Munich, 81377, Germany; t.hauke87@googlemail.com

2 GeneCology Research Centre, School of Science & Engineering, University of the Sunshine Coast, Sippy Downs, QLD 4556, Australia; vherzig@usc.edu.au

**\*** Correspondence: vherzig@usc.edu.au; Tel.: +61-7-5456-5382

**#** Equal contribution

**Table S1.** Popular arachnid husbandry books that were used to estimate the popularity of arachnid genera as pets.

|  |  |  |
| --- | --- | --- |
| **Reference** | **Origin of authors** | **Topic** |
| Webb, 1993 | UK | Theraphosids |
| Kallas et al., 1996 | Germany | Invertebrates |
| Axelrod, 1999 | USA | Theraphosids & Scorpions |
| von Wirth, 1999 | Germany | Theraphosids  |
| Webb and Schiejok, 1999 | UK & Germany | Scorpions |
| Dost, 2000 | Germany | Exotic pets |
| Rubio, 2000 | USA | Scorpions |
| Tinter, 2001 | Germany | Theraphosids |
| Klaas, 2007 | Germany | Theraphosids |
| Rafn, 2007 | Denmark | Theraphosids |
| Manns, 2008 | Germany | Theraphosids |
| von Wirth, 2008 | Germany | Theraphosids |
| Watz, 2008 | Germany | Scorpions |
| von Wirth, 2011 | Germany | Theraphosids |
| Mahsberg et al., 2012 | Germany | Scorpions |
| Cléton et al., 2015 | France | Theraphosids |
| Meinhardt, 2016 | Germany | Theraphosids |
| Schmitt, 2019 | Germany | Theraphosids |

**Table S2.** This table provides details about the families and species which were responsible for the 296 recorded spider bites. The number of cases per genus and the number of species within each genus that were responsible for envenomations is also indicated. Potentially dangerous spider genera (Hauke and Herzig, 2017) are shown in red. Please note that all reported spider names were checked and where appropriate updated according to the World Spider Catalog (World Spider Catalog, 2020) (except for the genus *Haplopelma*, as the recent nomenclatorial changes mentioned in the World Spider Catalog were insufficiently justified and not published under peer-review).

|  |  |  |  |
| --- | --- | --- | --- |
| **Family** | **Genus** | **Cases/genus** | **Species/genus** |
| Ctenidae | *Phoneutria* | 1 | 1 |
| Halonoproctidae | *Bothriocyrtum* | 1 | 1 |
| Lycosidae | *Hogna* | 1 | 1 |
| Miturgidae | *Syspira* | 1 | 1 |
| Theraphosidae | *Acanthoscurria* | 3 | 1 |
| Theraphosidae | *Aphonopelma* | 9 | 6 |
| Theraphosidae | *Avicularia* | 13 | 5 |
| Theraphosidae | *Brachypelma* | 7 | 2 |
| Theraphosidae | *Caribena* | 13 | 2 |
| Theraphosidae | *Ceratogyrus* | 1 | 1 |
| Theraphosidae | *Chilobrachys* | 1 | 1 |
| Theraphosidae | *Chromatopelma* | 4 | 1 |
| Theraphosidae | *Davus* | 1 | 1 |
| Theraphosidae | *Ephebopus* | 2 | 2 |
| Theraphosidae | *Eucratoscelus* | 2 | 1 |
| Theraphosidae | *Eupalaestrus* | 1 | 1 |
| Theraphosidae | *Grammostola* | 39 | 6 |
| Theraphosidae | *Haplopelma* | 12 | 6 |
| Theraphosidae | *Heteroscodra* | 11 | 1 |
| Theraphosidae | *Hysterocrates* | 9 | 4 |
| Theraphosidae | *Iridopelma* | 2 | 1 |
| Theraphosidae | *Lasiodora* | 2 | 1 |
| Theraphosidae | *Neoholothele* | 2 | 1 |
| Theraphosidae | *Nhandu* | 2 | 1 |
| Theraphosidae | *Omothymus* | 6 | 2 |
| Theraphosidae | *Ornithoctonus* | 1 | 1 |
| Theraphosidae | *Orphnaecus* | 2 | 1 |
| Theraphosidae | *Pamphobeteus* | 2 | 2 |
| Theraphosidae | *Pelinobius* | 7 | 1 |
| Theraphosidae | *Phlogiellus* | 1 | 1 |
| Theraphosidae | *Phormictopus* | 3 | 1 |
| Theraphosidae | *Poecilotheria* | 49 | 10 |
| Theraphosidae | *Psalmopoeus* | 10 | 3 |
| Theraphosidae | *Psednocnemis* | 1 | 1 |
| Theraphosidae | *Pseudoclamoris* | 1 | 1 |
| Theraphosidae | *Pterinochilus* | 34 | 5 |
| Theraphosidae | *Selenocosmia* | 3 | 3 |
| Theraphosidae | *Selenotypus* | 1 | 1 |
| Theraphosidae | *Stromatopelma* | 4 | 1 |
| Theraphosidae | *Theraphosa* | 3 | 2 |
| Theraphosidae | *Thrixopelma* | 1 | 1 |
| Theraphosidae | *Tliltocatl* | 18 | 2 |
| Theraphosidae | *Vitalius* | 1 | 1 |
| Theraphosidae | *Ybyrapora* | 1 | 1 |
| Theridiidae | *Latrodectus* | 2 | 2 |
| Theridiidae | *Steatoda* | 3 | 2 |
| Trechaleidae | *Cupiennius* | 2 | 1 |
|  | **Total** | **296** | **95** |

**Table S3.** This table provides details about the families and species which were responsible for the 58 recorded scorpion stings. The number of cases per genus and the number of species within each genus that were responsible for envenomations is also indicated. Potentially dangerous scorpion genera (Hauke and Herzig, 2017) are shown in red. Please note that all reported scorpion names were checked and where appropriate updated according to “The Scorpion Files” (Rein, 2020).

|  |  |  |  |
| --- | --- | --- | --- |
| **Family** | **Genus** | **Cases/genus** | **Species/genus** |
| Bothriuridae | *Bothriurus* | 1 | 1 |
| Buthidae | *Androctonus* | 2 | 2 |
| Buthidae | *Babycurus* | 3 | 1 |
| Buthidae | *Centruroides* | 10 | 3 |
| Buthidae | *Grosphus* | 1 | 1 |
| Buthidae | *Heteroctenus* | 1 | 1 |
| Buthidae | *Hottentotta* | 5 | 3 |
| Buthidae | *Leiurus* | 1 | 1 |
| Buthidae | *Lychas* | 4 | 3 |
| Buthidae | *Olivierus* | 4 | 2 |
| Buthidae | *Parabuthus* | 1 | 1 |
| Buthidae | *Tityus* | 2 | 2 |
| Caraboctonidae | *Caraboctonus* | 1 | 1 |
| Chactidae | *Uroctonus* | 2 | 1 |
| Euscorpiidae | *Euscorpius* | 3 | 2 |
| Euscorpiidae | *Tetratrichobothrius* | 1 | 1 |
| Hormuridae | *Hadogenes* | 1 | 1 |
| Scorpionidae | *Heterometrus* | 4 | 2 |
| Scorpionidae | *Pandinoides* | 1 | 1 |
| Scorpionidae | *Pandinus* | 7 | 1 |
| Scorpionidae | *Scorpio* | 2 | 1 |
| Vaejovidae | *Paravaejovis* | 1 | 1 |
|  | **Total** | **58** | **33** |

References

Axelrod, H., 1999. Ratgeber Vogelspinnen & Skorpione. bede Verlag, Ruhmannsfelden, Germany.

Cléton, F., Sigwalt, Y., Verdez, J.M., 2015. Vogelspinnen. Die Haltungserfahrung. Chimaira Buchhandelsgesellschaft, Frankfurt am Main, Germany.

Dost, U., 2000. Das Kosmos-Buch Terraristik Franckh-Kosmos Verlag, Stuttgart, Germany.

Hauke, T.J., Herzig, V., 2017. Dangerous arachnids–Fake news or reality? Toxicon 138, 173-183.

Kallas, S., Meyer, M., Schmidt, W., Lippe, R., 1996. Kleintiere im Terrarium Landbuch Verlag, Hannover, Germany.

Klaas, P., 2007. Vogelspinnen. Herkunft. Pflege. Arten. Eugen Ulmer Verlag, Stuttgart, Germany.

Mahsberg, D., Lippe, R., Kallas, S., 2012. Skorpione. Lebensweise. Haltung. Nachzucht. Natur und Tier-Verlag, Münster, Germany.

Manns, K., 2008. Leben mit Vogelspinnen. Natur und Tier-Verlag, Münster, Germany.

Meinhardt, M., 2016. Vogelspinnen im Terrarium. Natur und Tier-Verlag, Münster, Germany.

Rafn, S., 2007. Vogelspinnnen. Kirschner & Seufer Verlag, Rheinstetten, Germany.

Rein, J.O., 2020. <https://www.ntnu.no/ub/scorpion-files/> (accessed 24/10/2020).

Rubio, M., 2000. Scorpions. Barron’s Educational Series, Hauppauge, USA.

Schmitt, B.C., 2019. Vogelspinnen für Anfänger. Eigenverlag (Bernhard C. Schmitt), Unterhaching, Germany.

Tinter, A., 2001. Vogelspinnen. Gifte. Lebensweise. Verhalten. Nikol Verlagsgesellschaft, Hamburg, Germany.

von Wirth, V., 1999. Vogelspinnen. Gräfe und Unzer Verlag, München, Germany.

von Wirth, V., 2008. Vogelspinnen. Faszinierend & exotisch. Gräfe und Unzer Verlag, München, Germany.

von Wirth, V., 2011. Vogelspinnen. Gräfe und Unzer Verlag, München, Germany.

Watz, M., 2008. Skorpione im Terrarium. Eugen Ulmer Verlag, Stuttgart, Germany.

Webb, A., 1993. Vogelspinnen. Heselhaus und Schmidt Verlag, Münster, Germany.

Webb, A., Schiejok, H., 1999. Ihr Hobby Skorpione. bede Verlag, Ruhmannsfelden, Germany.

World Spider Catalog, 2020. <http://wsc.nmbe.ch> (accessed 24/10/2020).