

**CONTENTS**  
**Journal of Arachnology**

**Volume 47**

**Number 1**

**Invited Review**

Chemical communication in spiders – a methodological review  
by **Andreas Fischer** ..... 1

**Featured Articles**

Seasonal variation in sexual behavior and web aggregation in a little-known long-jawed spider (*Tetragnatha straminea*) (Araneae: Tetragnathidae)  
by **Victoria Simkovic & Maydianne C.B. Andrade**..... 28

Niche segregation in Iberian *Argiope* species  
by **Pablo Peña-Aguilera, Lidia Burguillo-Madrid, Vijay Barve, Pedro Aragón & Alberto Jiménez-Valverde** ..... 37

Trophic niche and capture efficacy of an ant-eating spider, *Euryopis episinoides* (Araneae: Theridiidae)  
by **Eva Liznarová & Stano Pekár** ..... 45

Sperm viability in spiders: a first approach using *Holocnemus pluchei* (Scopoli, 1763) (Synspermiata: Pholcidae)  
by **Franco Cargnelutti, Diego Uñates, David E. Vrech, Fedra Bollatti, Lucia Calbacho-Rosa, Alex Córdoba-Aguilar & Alfredo V. Peretti** ..... 52

Radius construction by *Micrathena duodecimspinosa* (Araneae: Araneidae): a puzzle within a puzzle  
by **William Eberhard** ..... 57

A revision of the white-headed spiny trapdoor spiders of the genus *Euoplos* (Mygalomorphae: Idiopidae: Arbanitinae): a remarkable lineage of rare mygalomorph spiders from the south-western Australian biodiversity hotspot  
by **Michael G. Rix, Jeremy D. Wilson & Mark S. Harvey** ..... 63

Revision of the spider genus *Rishaschia* Makhan, 2006 (Araneae: Salticidae)  
by **Gustavo R.S. Ruiz & Felipe N.A.A. Rego** ..... 77

A review of the pseudoscorpion genus *Metawithius* (Pseudoscorpiones: Withiidae) from the Indian subcontinent  
by **Jithin Johnson, Catalina Romero-Ortiz, Aneesh V. Mathew, Pothalil A. Sebastian, Mathew M. Joseph & Mark S. Harvey** ..... 84

Two new species of pseudoscorpions (Arachnida: Pseudoscorpiones) from a Mexican oak forest near Pico de Orizaba National Park  
by **Dulce F. Piedra-Jiménez, Fernando Alvarez-Padilla & Edmundo González-Santillán** ..... 95

Distribution of cave-dwelling pseudoscorpions (Arachnida) in Brazil  
by **Diego Monteiro Von Schimonsky & Maria Elina Bichuette** ..... 110

The status of the pseudoscorpion genus *Indogarypus* Beier, 1957 with new descriptions of three species of *Geogarypus* Chamberlin, 1930 (Arachnida: Pseudoscorpiones: Geogarypidae)  
by **János Novák & Mark S. Harvey** ..... 124

Stridulation by cosmetid harvestmen (Arachnida: Opiliones)  
by **Victor R. Townsend Jr., Leticia Classen-Rodriguez, Trevor J. Maloney & Michael K. Moore** ..... 132

A new critically endangered species of the harvestman genus *Lola* Kratochvíl, 1937 (Opiliones: Laniatores: Phalangodidae) from the Dalmatian karst, with notes on troglomorphy in European phalangodids  
by **Darrell Ubick & Roman Ozimec** ..... 142

**Short Communications**

Notes on the feeding habits of the Okinawan fishing spider, *Dolomedes orion* (Araneae: Pisauridae), in the southwestern islands of Japan  
by **Yuki G. Baba, Yuya Watari, Masahiro Nishi & Takeshi Sasaki** ..... 154

Avoidance of rosemary oil by scorpions  
by **Sara Kelley, Katy Yut, Ritu Kulkarni & Douglas D. Gaffin** ..... 159

*Instructions to Authors*..... 162

# Journal of ARACHNOLOGY

PUBLISHED BY THE AMERICAN ARACHNOLOGICAL SOCIETY

JOURNAL OF ARACHNOLOGY

2019

VOLUME 47, NUMBER 1



VOLUME 47

2019

NUMBER 1

# JOURNAL OF ARACHNOLOGY

*EDITOR-IN-CHIEF:* **Deborah Roan Smith**, University of Kansas

*MANAGING EDITOR:* **Richard S. Vetter**, University of California–Riverside

*SUBJECT EDITORS:* *Ecology*—**Martin Entling**, University of Koblenz-Landau, Germany; *Systematics*—**Mark Harvey**, Western Australian Museum and **Michael Rix**, Queensland Museum, Australia; *Behavior*—**Thomas C. Jones**, East Tennessee State University; *Morphology and Physiology*—**Peter Michalik**, Ernst Moritz Arndt University, Greifswald, Germany

*EDITORIAL BOARD:* **Alan Cady**, Miami University (Ohio); **Jonathan Coddington**, Smithsonian Institution; **William Eberhard**, Universidad de Costa Rica; **Rosemary Gillespie**, University of California, Berkeley; **Charles Griswold**, California Academy of Sciences; **Marshal Hedin**, San Diego State University; **Marie Herberstein**, Macquarie University; **Yael Lubin**, Ben-Gurion University of the Negev; **Brent Opell**, Virginia Polytechnic Institute & State University; **Ann Rypstra**, Miami University (Ohio); **William Shear**, Hampden-Sydney College; **Jeffrey Shultz**, University of Maryland; **Petra Sierwald**, Field Museum; **Søren Toft**, Aarhus University; **I-Min Tso**, Tunghai University (Taiwan).

The *Journal of Arachnology* (ISSN 0161-8202), a publication devoted to the study of Arachnida, is published three times each year by *The American Arachnological Society*. **Memberships (yearly):** Membership is open to all those interested in Arachnida. A subscription to the *Journal of Arachnology* and annual meeting notices are included with membership in the Society. Regular, \$55; Students, \$30; Institutional, \$125. Inquiries should be directed to the Membership Secretary (see below). **Back Issues:** James Carrel, 209 Tucker Hall, Missouri University, Columbia, Missouri 65211-7400 USA. Telephone: (573) 882-3037. **Undelivered Issues:** Allen Press, Inc., 810 E. 10th Street, P.O. Box 368, Lawrence, Kansas 66044 USA.

## THE AMERICAN ARACHNOLOGICAL SOCIETY

*PRESIDENT:* **Richard Bradley**, Department of Evolution, Ecology and Organismal Biology, The Ohio State University, Columbus, OH 43210, USA.

*PRESIDENT-ELECT:* **Greta Binford**, Department of Biology, Lewis & Clark College, Portland, OR 97219, USA.

*MEMBERSHIP SECRETARY:* **L. Brian Patrick** (appointed), Department of Biological Sciences, Dakota Wesleyan University, Mitchell, South Dakota, USA.

*TREASURER:* **Cara Shillington**, Biology Department, Eastern Michigan State University, Ypsilanti, MI 48197 USA.

*SECRETARY:* **Paula Cushing**, Denver Museum of Nature and Science, Denver, Colorado, USA.

*ARCHIVIST:* **Lenny Vincent**, Fullerton College, Fullerton, California, USA.

*DIRECTORS:* **Nadia Ayoub** (2018-2020), **Marshal Hedin** (2017-2019), T.C. Jones (2017 – 2019)

*PARLIAMENTARIAN:* **Brent Opell** (appointed)

*HONORARY MEMBER:* **C.D. Dondale**

---

*Cover photos:* The trapdoor spiders in the *mcmillani*-group of *Euoplos* (Idiopidae: Arbanitinae) are characterized by males with bright white carapace coloration; it is the only group of mygalomorph spiders known to possess this unusual phenotype. They are also among the rarest and most enigmatic of Australia's mygalomorph spiders: only 12 male specimens have ever been collected, and females and burrows are unknown. Male holotype of *Euoplos cornishi* sp. nov. (see page 63). Photo by Volker W. Frameneau.

---

Publication date: 29 April 2019

© This paper meets the requirements of ANSI/NISO Z39.48-1992 (Permanence of Paper).