

# JOURNAL OF CAVE AND KARST STUDIES

---

---

August 2001  
Volume 63 Number 2  
ISSN 1090-6924  
A Publication of the National  
Speleological Society



# Journal of Cave and Karst Studies of the National Speleological Society

Volume 63 Number 2 August 2001

## CONTENTS

- Solute transport through laboratory-scale karstic aquifers  
*Lee J. Florea and Carol M. Wicks* 59
- A simple map index of karstification and its relationship to sinkhole  
and cave distribution in Tennessee.  
*Gregory A. Shofner, Hugh H. Mills and Jason E. Duke* 67
- Discussion and Reply**
- Discussion: "Post-speleogenetic erosion and its  
effects on caves in the Guadalupe Mountains,  
New Mexico and west Texas"  
*Donald G. Davis* 76
- Reply: "Post-speleogenetic erosion and its  
effects on caves in the Guadalupe Mountains,  
New Mexico and west Texas"  
*Harvey R. DuChene and Ruben Martinez* 77
- Cave Science News** 79

The *Journal of Cave and Karst Studies* (ISSN 1090-6924) is a multi-disciplinary, refereed journal published three times a year by the National Speleological Society, 2813 Cave Avenue, Huntsville, Alabama 35810-4431; (256) 852-1300; FAX (256) 851-9241, e-mail: nss@caves.org; World Wide Web: <http://www.caves.org/~nss/>. The annual subscription fee, worldwide, by surface mail, is \$18 US. Airmail delivery outside the United States of both the *NSS News* and the *Journal of Cave and Karst Studies* is available for an additional fee of \$40 (total \$58); The *Journal of Cave and Karst Studies* is not available alone by airmail. Back issues and cumulative indices are available from the NSS office. POSTMASTER: send address changes to the *Journal of Cave and Karst Studies*, 2813 Cave Avenue, Huntsville, Alabama 35810-4431.

Copyright © 2001 by the National Speleological Society, Inc. Printed on recycled paper by American Web, 4040 Dahlia Street, Denver, Colorado 80216

Cover: The number of cave pearls in Gruta de las Canicas, Tabasco, Mexico, has recently been estimated to be in excess of 200 million (Pisarowicz 2001 - *Carbide Flash*). Photo by Robert Stucklen.

## Editor

**Louise D. Hose**

Department of Environmental & Chemical Sciences  
Chapman University  
Orange, CA 92866  
(714) 997-6994 Voice  
(714) 532-6048 FAX  
[hose@chapman.edu](mailto:hose@chapman.edu)

## Production Editor

**James A. Pisarowicz**

Wind Cave National Park  
Hot Springs, SD 57747  
(605) 673-5582  
[pisarowi@gwtc.net](mailto:pisarowi@gwtc.net)

## BOARD OF EDITORS

### Anthropology

**Patty Jo Watson**

Department of Anthropology  
Washington University  
St. Louis, MO 63130  
[pjwatson@artsci.wustl.edu](mailto:pjwatson@artsci.wustl.edu)

### Conservation

**George Huppert**

Department of Geography  
University of Wisconsin, LaCrosse  
LaCrosse, WI 54601  
[Huppert@uwlax.edu](mailto:Huppert@uwlax.edu)

## Earth Sciences-Journal Index

**Ira D. Sasowsky**

Department of Geology  
University of Akron  
Akron, OH 44325-4101  
(330) 972-5389  
[ids@uakron.edu](mailto:ids@uakron.edu)

### Exploration

**Andrea Futrell**

987 Dow Creek Road  
Pembroke, VA 24136  
(540) 626-5349  
[karstmap@hotmail.com](mailto:karstmap@hotmail.com)

### Life Sciences

**Steve Taylor**

Center for Biodiversity  
Illinois Natural History Survey  
607 East Peabody Drive (MC-652)  
Champaign, IL 61820-6970  
(217) 333-5702  
[staylor@inhs.uiuc.edu](mailto:staylor@inhs.uiuc.edu)

### Social Sciences

**Marion O. Smith**

P.O. Box 8276  
University of Tennessee Station  
Knoxville, TN 37996

### Book Reviews

**Ernst H. Kastning**

P.O. Box 1048  
Radford, VA 24141-0048  
[ehkastni@runet.rdu](mailto:ehkastni@runet.rdu)

### Proofreader

**Donald G. Davis**

## JOURNAL ADVISORY BOARD

David Ashley	Rane Curl
Andrew Flurkey	John Ganter
Douglas Medville	John Mylroie
Diana Northup	Art Palmer
	Elizabeth White