

JOURNAL OF CAVE AND KARST STUDIES

August 2004
Volume 66 Number 2
ISSN 1090-6924
A Publication of the National
Speleological Society



Ten Acre Room, Cumberland Caverns, Tennessee

Journal of Cave and Karst Studies of the National Speleological Society

Volume 66 Number 2 August 2004

CONTENTS

Article

- Application of resistivity and magnetometry geophysical techniques
for near-surface investigations in karstic terranes in Ireland
P.J. Gibson, P. Lyle, and D.M. George 35

Article

- Estimating subterranean species richness using intensive sampling
and rarefaction curves in a high density cave region in West Virginia
Katie Schneider and David C. Culver 39

Article

- A Late Tertiary origin for multilevel caves along the western
escarpment of the Cumberland Plateau, Tennessee and Kentucky,
established by cosmogenic ²⁶Al and ¹⁰Be
Darlene M. Anthony and Darryl E. Granger 46

Long and Deep Caves of the World

- Bob Gulden* 56

Guide to Authors

58

Article

- Landform differentiation within the Gunung Kidul Kegelkarst,
Java, Indonesia
Eko Haryono and Mick Day 62

Book Review

- Encyclopedia of Caves and Karst Science* 70

The *Journal of Cave and Karst Studies* (ISSN 1090-6924, CPM Number #40065056) is a multi-disciplinary, refereed journal published three times a year by the National Speleological Society, 2813 Cave Avenue, Huntsville, Alabama 35810-4431 USA; (256) 852-1300; FAX (256) 851-9241, e-mail: nss@caves.org; World Wide Web: <http://www.caves.org/pub/journal/>. 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 USA.

The *Journal of Cave and Karst Studies* is covered the the following ISI Thomson Services: Science Citation Index Expanded, ISI Alerting Services, and Current Contents/Physical, Chemical, and Earth Sciences.

Copyright © 2004 by the National Speleological Society, Inc. Printed on recycled paper by American Web, 4040 Dahlia Street, Denver, Colorado 80216 USA

Front cover: Ten Acre Room, Cumberland Caverns, TN. Photo by Bob Biddix. See Darlene M. Anthony and Darryl E. Granger, p. 46.

Editor

Malcolm S. Field

National Center of Environmental Assessment (8623D)
Office of Research and Development
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460-0001
202-564-3279 Voice 202-565-0079 FAX
field.malcolm@epa.gov

Production Editor

James A. Pisarowicz

Wind Cave National Park
Hot Springs, SD 57747
605-673-5582
pisarowicz@alumni.hamline.edu

BOARD OF EDITORS

Anthropology

Patty Jo Watson

Department of Anthropology
Washington University
St. Louis, MO 63130
pjwatson@artsci.wustl.edu

Conservation-Life Sciences

Julian J. Lewis

J. Lewis & Associates, Biological Consulting
217 West Carter Avenue
Clarksville, IN 47129
812-283-6120
lewisbioconsult@aol.com

Earth Sciences-Journal Index

Ira D. Sasowsky

Department of Geology
University of Akron
Akron, OH 44325-4101
330-972-5389
ids@uakron.edu

Exploration

Paul Burger

Cave Resources Office
3225 National Parks Highway
Carlsbad, NM 88220
(505)785-3106
paul_burger@nps.gov

Paleontology

Greg McDonald

Geologic Resource Division
National Park Service
P.O. Box 25287
Denver, CO 80225
303-969-2821
Greg_McDonald@nps.gov

Social Sciences

Joseph C. Douglas

History Department
Volunteer State Community College
1480 Nashville Pike
Gallatin, TN 37066
615-230-3241
Joe.Douglas@volstate.edu

Book Reviews

Ernst H. Kastning

P.O. Box 1048
Radford, VA 24141-0048
ehkastni@runet.edu

Proofreader

Donald G. Davis

JOURNAL ADVISORY BOARD

Chris Groves	Carol Hill
Horton Hobbs III	David Jagnow
Julia James	Kathy Lavoie
Joyce Lundberg	Donald MacFarlane
	William White