

Table of Contents

A SECTION

FEATURES

- 49A Sinkholes and sand boils during 2011 record flooding in Cairo, Illinois**
Lois Wright Morton and Kenneth R. Olson
- 55A Sequestering carbon and increasing productivity by conservation agriculture**
Rattan Lal
- 63A Reducing hypoxia in the Gulf of Mexico: Reimagining a more resilient agricultural landscape in the Mississippi River Watershed**
Pamela A. Porter, Robert B. Mitchell, and Kenneth J. Moore
- 69A Restored oxbows reduce nutrient runoff and improve fish habitat**
Christopher S. Jones, Keegan Kult, and Stephen A. Laubach

A SECTION Call for Papers

Are you working on cutting edge research in soil and water conservation? Does your work involve new tools, technologies, or materials that others should be aware of? Have you observed or been a part of conservation practices that are worth sharing with the journal audience?

If you answered “Yes” to any of these questions, you are invited to submit your article ideas for the A Section of the *Journal of Soil and Water Conservation*.

Your work could be published in one of the A Section topic areas: Conservation in Practice, Viewpoint, Ideas & Innovations, Conservation in Action, In the News, Feature, etc.

To submit your article ideas or for more information, contact editor Annie Binder at annie.binder@swcs.org



On the Cover
Native prairie in Nebraska.
Photo by JL Jahn.



Printed on 100% post-consumer waste recycled paper with vegetable-based inks.

RESEARCH SECTION

- 145** **Suspended sediment supply dominated by bank erosion in a low-gradient agricultural watershed, Wildcat Slough, Fisher, Illinois, United States**
C.W.M. Neal and A.M. Anders
- 156** **Biofuel feedstock production potential in stream buffers of the inland Pacific Northwest: Productivity and management issues with invasive plants**
J.D. Williams, D.S. Robertson, and S.B. Wuest
- 170** **Effect of conservation practices on soil carbon and nitrogen accretion and crop yield in a corn production system in the southeastern coastal plain, United States**
T.C. Strickland, B.T. Scully, R.K. Hubbard, D.G. Sullivan, Z. Abdo, M.R. Savabi, R.D. Lee, D.M. Olson, and G.L. Hawkins
- 182** **Interpolation methods for improving the RUSLE R-factor mapping in Brazil**
C.R. de Mello, M.R. Viola, P.R. Owens, J.M. de Mello, and S. Beskow
- 198** **Differential water and soil conservation capacity and associated processes in four forest ecosystems in Dianchi Watershed, Yunnan Province, China**
Y. Li, B. Li, X. Zhang, J.J. Chen, F.D. Zhan, X.H. Guo, and Y.Q. Zu

JOURNAL OF SOIL AND WATER
CONSERVATION

o n l i n e

The *Journal of Soil and Water Conservation* is online.

AUTHORS

Please submit manuscripts using the online manuscript review system.

MORE INFORMATION

Go to www.jswconline.org

EXECUTIVE DIRECTOR

Jim Gulliford
Soil and Water Conservation Society
Ankeny, Iowa, USA

EDITOR & DIRECTOR OF PUBLICATIONS

Annie Binder
Soil and Water Conservation Society
Ankeny, Iowa, USA

RESEARCH EDITOR & CHAIR OF EDITORIAL BOARD

Jorge A. Delgado
Soil Plant Nutrient Research Unit
USDA Agricultural Research Service
Fort Collins, Colorado, USA

EDITORIAL ASSISTANT

Jody Thompson
Soil and Water Conservation Society
Ankeny, Iowa, USA

EDITORIAL BOARD

J. Gordon Arbuckle, Jr.
Department of Sociology
Iowa State University
Ames, Iowa, USA

Francisco Arriaga
Department of Soil Science and UW-Extension
University of Wisconsin-Madison
Madison, Wisconsin, USA

Karl Auerswald
Technische Universität München
Freising, Germany

Claire Baffaut
Cropping Systems and Water Quality Research Unit
USDA Agricultural Research Service
Columbia, Missouri, USA

Meni Ben-Hur
Institute of Soil, Water and Environmental Sciences
Agricultural Research Organization, Volcani Center
Bet-Dagan, Israel

Lorenzo Borselli
Autonomous University of San Luis Potosí
San Luis Potosí, Mexico

Kathryn J. Brasier
Department of Agricultural Economics & Rural Sociology
The Pennsylvania State University
University Park, Pennsylvania, USA

Zhibao Dong
Key Laboratory of Desert and Desertification
Chinese Academy of Sciences
Lanzhou, Gansu Province, China

Moustafa A. Elrashidi
National Soil Survey Center
USDA Natural Resources Conservation Service
Lincoln, Nebraska, USA

Clark J. Gantzer
Soil, Environmental, and Atmospheric Sciences
University of Missouri
Columbia, Missouri, USA

Margaret W. Gitau
Biological and Agricultural Systems Engineering
Florida A&M University
Tallahassee, Florida, USA

LeRoy Hansen
USDA Economic Research Service
Washington, DC, USA

Katharina Helming
Leibniz Centre for Agricultural Landscape Research (ZALF)
Müncheberg, Germany

Juan M. Herrea
Institute of Agricultural and Environmental Biosciences
University of Buenos Aires
Buenos Aires, Argentina

Chunsheng Hu
Center for Agricultural Resources Research
Shijiazhuang, Hebei, China

Jane M.F. Johnson
North Central Soil Conservation Research Laboratory
USDA Agricultural Research Service
Morris, Minnesota, USA

Amy L. Kaleita
Agricultural and Biosystems Engineering
Iowa State University
Ames, Iowa, USA

Peter J.A. Kleinman
Pasture Systems & Watershed Management Research Unit
USDA Agricultural Research Service
University Park, Pennsylvania, USA

Andreas Klik
Institute of Hydraulics and Rural Water Management
BOKU-University of Natural Resources and Life Sciences
Vienna, Austria

Birl Lowery
Department of Soil Science
University of Wisconsin-Madison
Madison, Wisconsin, USA

Loretta M. Lynch
Department of Agricultural and Resource Economics
University of Maryland
College Park, Maryland, USA

Machito Mihara
Faculty of Regional Environmental Science
Tokyo University of Agriculture
Tokyo, Japan

Mark A. Nearing
Southwest Watershed Research Center
USDA Agricultural Research Service
Tucson, Arizona, USA

Sharon K. Papiernik
North Central Agricultural Research Laboratory
USDA Agricultural Research Service
Brookings, South Dakota, USA

Linda S. Prokopy
Department of Forestry and Natural Resources
Purdue University
West Lafayette, Indiana, USA

Zeyuan Qiu
Department of Chemistry and Environmental Science
New Jersey Institute of Technology
Newark, New Jersey, USA

Richmal Jane Rickson
Department of Environmental Science and Technology
Cranfield University
Cranfield, Bedfordshire, United Kingdom

Felix Kolawole Salako
Department of Soil Science and Land Management
University of Agriculture
Abeokuta, Nigeria

M.S. Srinivasan
National Institute of Water and Atmospheric Research Ltd.
Christchurch, New Zealand

Peter Strauss
Institute for Land and Water Management Research
Federal Agency for Water Management
Pöchlarn, Austria

R. Scott Van Pelt
Wind Erosion and Water Conservation Research Unit
USDA Agricultural Research Service
Big Spring, Texas, USA

John Westra
Department of Agricultural Economics and Agribusiness
Louisiana State University
Baton Rouge, Louisiana, USA

John D. Williams
Columbia Plateau Conservation Research Center
USDA Agricultural Research Service
Pendleton, Oregon, USA

Wanhong Yang
Department of Geography
University of Guelph
Guelph, Ontario, Canada

BOARD OF DIRECTORS

Mark Berkland, President & Southeastern Director
Cheryl Simmons, Vice President & Southwestern Director
John Rissler, Secretary & At-Large Director
Tom Prout, Treasurer & North Central Director
Michael Collins, Southwestern Director
Wendi Goldsmith, Northeastern Director
Bruce Knight, At-Large Director
Susan Meadows, North Central Director
Jon Scholl, At-Large Director
Dan Towery, At-Large Director
Don Wysocki, Northwestern Director

The *Journal of Soil and Water Conservation* (print ISSN 0022-4561, online ISSN 1941-3300) is published bimonthly by the Soil and Water Conservation Society. © 2015 by the Soil and Water Conservation Society. All rights reserved.

For subscriptions or membership, please visit www.swcs.org or call 800-THE-SOIL. POSTMASTER: Send address changes to *Journal of Soil and Water Conservation*, 945 SW Ankeny Road, Ankeny, IA 50023 USA. Periodicals postage paid at Ankeny, IA, and additional mailing offices.

Submit comments, contributions, advertising queries, and requests for reprints and permissions to the editor at pubs@swcs.org. Articles in the Research Section have undergone peer review. The Soil and Water Conservation Society assumes no responsibility for statements and opinions expressed by contributors.

**Soil and Water
Conservation Society
Corporate Membership**

GOLD CORPORATE MEMBERS

Agri Drain Corporation
www.agridrain.com

Dow AgroSciences
www.dowagro.com

Hickenbottom Inc.
www.hickenbottominc.com

SILVER CORPORATE MEMBERS

Agren Inc.
www.agren-inc.com

The Fertilizer Institute
www.tfi.org

La Crosse Seed
www.lacrosseseed.com

BRONZE CORPORATE MEMBERS

Conservation Technology
Information Center
www.ctic.org

DuPont Pioneer
www.pioneer.com

Ecosystem Services Exchange
www.ecosystemservicesexchange.com

The Nature Conservancy
www.nature.org

White River Irrigation District

For information on becoming a
corporate member, please contact

Christine Rhodes
515-289-2331 ext. 114
corporate.info@swcs.org