Ecological Restoration

Volume 32, Number 1

Editorial Good Fences Make Good Neighbors?	1
Steven N. Handel	
RESTORATION NOTES	
Restoration Map: A Web-based Tool for Spatial and Participatory Adaptive Management of Ecological Restoration Projects William A. Freyman and Karen A. Glennemeier	3
Restoring Conservation Nodes to Enhance Biodiversity and Ecosystem Function along the Santa Clara River Sophie S. Parker, E.J. Remson and Lily N. Verdone	6
Monitoring Michaux's Sumac Requires More Systematic Approaches Megan S. Henderson and Richard R. Braham	9
Sampling Intensities and Sampling Errors Associated with Pre-and Post-treatment Forest Restoration Monitoring: The Ute Valley Inventory **Andrew Egan**	11
Informing the CFLRP: Lessons Learned from New Mexico's Collaborative Forest Restoration Program Andrew Egan	13
ARTICLES	
Charles A. Geyer Agricultural Botanical Survey of 1838–1839: A Comparison of the Composition of Minnesota Prairies Then and Now <i>Charles E. Umbanhowar Jr.</i>	16
Drought and Grazing Disturbances and Resistance to Invasion by Warm- and Cool-Season Perennial Grassland Communities Chengchou Han and Stephen L. Young	28
Recovery of Native Plant Communities following Control of Terracina Spurge (<i>Euphorbia terracina</i>): Three Case Studies from South-west Western Australia *Kate Brown, Julia Cullity and Grazyna Paczkowska*	37
Soft Shell Clams (<i>Mya arenaria</i>) Contribute to Macroalgal Blooms in a Partially-restored Gulf of Maine Back-barrier Lagoon Rachel K. Thiet, Stephen M. Smith, Victoria Rubino, Rebecca Clark, Krista Lee and Judith Oset	46
Extirpation for Conservation: Applying Predictors of Extinction Risk to Eradicate Introduced Trout Populations for Lake Restoration Queenie Z. Gray, Dylan J. Fraser and James W.A. Grant	59
Testing Ecological Tradeoffs of a New Tool for Removing Fine Sediment in Spring-fed Stream Adam J. Sepulveda, Juddson Sechrist and Laurie B. Marczak	68
Restoring Walden Woods and the Idyll of Thoreau I: From Literary Landscape to Politicized Landscape Laura Smith	78
Restoring Walden Woods and the Idyll of Thoreau II: A Recent Historical Tracing of Changing and Renegotiated Restoration Goals *Laura Smith*	86

March 2014

ABSTRACTS

Grasslands	96	Ecological Design	100
Woodlands	96	Ecological Literacy	101
Wetlands	97	Climate Change	101
Lakes, Rivers & Streams	97	Monitoring & Adaptive Management	102
Coastal & Marine Communities	98	Reclamation & Rehabilitation	102
Other Communities	99	Urban Restoration	102
Endangered Species	99	Economics & Ecosystem Services	103
Invasive & Pest Species	100	Planning & Policy	103
Wildlife Habitat Restoration	100		
BOOK REVIEWS Ecological Restoration Susan M. Galatowitsch, reviewed by Steven I. Apfelbaum			
Making Nature Whole: A History of Ecolog William R. Jordan III, George M. Lubick and S	_	n al Restoration International, reviewed by Anita Guerrini	105
Urban Ecological Design: A Process for Regenerative Places Danilo Palazzo and Frederick Steiner, reviewed by Anthony Fettes			
Applied Urban Ecology: A Global Framework Matthias Richter and Ulrike Weiland (eds), reviewed by Christopher A. Lepczyk			
RECENTLY RECEIVED TITLES			108
MEETINGS			109



ADVISORY BOARD

James Aronson

Centre for Functional & Evolutionary Ecology France, and Missouri Botanical Garden USA

Peter Bowler

Department of Ecology & **Evolutionary Biology** University of California, Irvine

Tom Chase

The Nature Conservancy Martha's Vineyard MA

Francisco Comín

Instituto Pirenaico de Ecología-CSIC Zaragoza, Spain

Paul H. Gobster

USDA Forest Service Chicago IL

Andrew Light

Director, Center for Global Ethics Department of Philosophy George Mason University

Marty Melchior

Inter-Fluve, Inc. Madison WI

Darrel Morrison

Master of Science in Landscape Design Columbia University

Steve Packard

National Audubon of Chicago Chicago Wilderness Program Northbrook IL

Leslie Sauer

Private Consultant Hunterdon County NJ

Steve Whisenant

Society for Ecological Restoration, Washington, DC Texas A&M University, College Station TX

Luis Zambrano

Laboratorio de Restauración Ecológica Instituto de Biología, UNAM Mexico City, Mexico

Ecological Restoration (ISSN 1522-4740, E-ISSN 1543-4079) is published quarterly by the University of Wisconsin Press, 1930 Monroe Street, 3rd Floor, Madison, WI 53711-2059. Periodicals postage paid at Madison WI and at additional mailing offices.

Subscriptions: Individual (please pre-pay), \$70 print and electronic, \$60 electronic only; \$45 students; \$160 businesses and nongovernmental organizations; libraries and government agencies, \$257 print and electronic, \$227 electronic only. Non-U.S. subscribers please add \$35 for foreign shipping. All correspondence regarding subscriptions, advertising, and related matters should be sent to Journals Division, 1930 Monroe Street, 3rd Floor, Madison, WI 53711-2059, USA; uwpress.wisc.edu/journals. Members of the Society for Ecological Restoration International receive Ecological Restoration at a discounted rate.

Please visit our Web site at uwpress.wisc.edu/ journals for more information.

POSTMASTER: Send address changes to Ecological Restoration, 1930 Monroe Street, 3rd Floor, Madison, WI 53711-2059.

Journal Staff:

Editor: Steven N. Handel

Managing Editor: Myla F.J. Aronson Abstracts Editor: Amy S. Karpati Copyeditor: Joshua D. Echols

Rutgers, The State University of New Jersey,

School of Environmental and Biological Sciences: Robert M. Goodman, Executive Dean Society for Ecological Restoration International: Cara R. Nelson, Chair

Ecological Restoration is published quarterly by the University of Wisconsin Press. © by the Board of Regents of the University of Wisconsin System. No part of this publication may be reproduced without the written consent of the publisher, University of Wisconsin Press. Requests for permission to reprint an article or illustration should be made directly to UW Press, 1930 Monroe St, 3rd Floor, Madison, WI 53711-2059, permissions@uwpress.wisc.edu, er.uwpress.org.



Printed on 30% recycled text paper.

Contributions are welcome. Authors should upload their materials through *Ecological* Restoration's submission website, which can be found at er.uwpress.org. Submission guidelines can be found at uwpress.wisc.edu/journals/journals/er_submissions.html.

Authorization to reproduce material from this journal, beyond one copy for personal use or that permitted by Sections 107 and 108 of U.S. Copyright Law, is granted for a fee. For fee schedule and payment information, contact www.copyright.com; The Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, 978/750-8400, Fax: 978/750-4470.

Ecological Restoration is indexed in Elsevier BIOBASE, AGRICOLA, and in CSA's Ecology databases.

Ecological Restoration is affiliated with the Society for Ecological Restoration International, 285 W. 18th St. #1, Tucson, AZ 85701, 520/622-5485, ser.org. Members of the Society for Ecological Restoration International receive Ecological Restoration at a discounted rate. Please visit the UW Press Web site at uwpress.wisc.edu/journals for more information.

Ecological Restoration was founded at the University of Wisconsin-Madison Arboretum.

Advertising: Call 608/263-0534 for current rates. Advertisements or references to products by brandname or trademark do not imply an endorsement by the editors or publishers of this journal.

Front Cover Feature:

The application of demographic characteristics to select introduced populations for eradication is a simple yet meaningful step in restoration. Queenie Gray and colleagues ranked high-elevation lakes in Waterton Lakes National Park, Canada, for trout eradication using trout demographic characteristics that may render these populations more susceptible to depletion and ultimately extinction. This research provides insight into the characteristics of introduced salmonid populations and facilitates restoration by offering a science-based system of prioritizing impacted mountain lake ecosystems. Photo Credit: Ryan Peruniak.

Back Cover Features:

Top: Web-based tools such as Restoration Map are important for successful collaborative adaptive management of restoration projects.

Middle: Establishment of conservation nodes may enhance biodiversity in the Santa Clara River Valley, CA, USA. Photo Credit: Barbara Wampole.

Bottom: The history of changing restoration narratives at Walden Woods, MA, USA. Photo Credit: "First Light in Walden Woods" @Scot Miller/waldenat150.com.

INSTRUCTIONS FOR CONTRIBUTORS

Submissions

We welcome submissions to Ecological Restoration from any part of the world. Submissions should relate to the restoration of plants, animals, ecological communities, or landscapes. We understand ecological restoration to be a multidisciplinary and diverse effort and welcome manuscripts considering ecological, and social aspects of restoration, as well as political, economic, legal, and regulatory issues, and other subjects related to ecological restoration. Relevant topics also include techniques and tools for planning, site preparation, species introduction, undesired species control, and monitoring. Manuscripts dealing with plant or animal community composition or general ecology must relate the work explicitly to ecological restoration practice and theory. Similarly, material dealing with reclamation or rehabilitation in a broader sense, or with restoration for economic purposes-economic forestry, range management, waste disposal—must be connected to ecological restoration.

Material may be submitted for the following categories (listed as they are encountered in the journal):

- Letters to the Editor
- Observations/Editorials/Commentary/Policy Reports
- Restoration Notes (shorter items describing project updates, new collaborations, events, innovative technologies, preliminary or unusual findings, thought-provoking concepts, imaginative solutions, etc.)
- Full-length feature articles on ecological restoration theory, practice, and research (case studies, research reports, photo essays, experiments, etc.)
- Book, journal, web, or movie reviews

Authors of full-length articles or reviews should submit their material online at er.msubmit.net. Manuscripts must be submitted with a cover letter stating that the material has not been previously published, and has not been submitted elsewhere and will not be until a final decision has been reached by the editor. Questions about the online submission site, or general inquiries may be emailed to ERjournal@aesop.rutgers.edu.

Review and Editing Process

Manuscripts are reviewed externally by experts in the field. The process requires approximately four to six months. Restoration Notes are reviewed and edited in-house unless additional expertise is required to evaluate the submission.

Style

Practitioners of ecological restoration are both a core audience and source of contributions to ER. Contributors should use a straightforward style free of unnecessary technical terms and jargon. We prefer the active voice (for example, "We measured three trees" instead of "Three trees were measured"). Please see our Submission Guidelines at er.uwpress.org for more information.

Tables, Photos, and Illustrations

Table and Figure captions should include useful and detailed information, and should be independent of the text. Figures will be reproduced in black and white in the print version of *Ecological Restoration* (usually requiring higher contrast) and can be reproduced in color in the online version. We use color photos on the front and back covers of the journal and welcome submissions of eyecatching, informative, high-quality photographs.

Page Charges

Payment of \$50 per page is requested from authors with research grant or other institutional funds available to underwrite publication costs. Invoices will be sent after composition of pages. Authors with no grant or institutional funds do not need to pay publication costs. Ability to pay page charges is not a condition for acceptance of a manuscript.



Corrigendum: Ecological Restoration 31:2 (June 2013). The authors and Nelson Byrd Woltz Landscape Architects thank Kristin Taverna (Consulting Ecologist, Charlottesville, VA) for collecting and providing the monitoring data discussed in "Designing a Grassland Estate, Cultivating Biodiversity." Her skills and efforts were critical for the restoration work conceived and developing at this site.