

NATIVEPLANTS

JOURNAL

vol. 23 | no. 3 | fall 2022



includes HYPERNATURAL PIEDMONT PRAIRIES AND FLOODPLAIN RESTORATION

An eclectic forum for dispersing practical information about planting and growing native plants.

EDITOR

Stephen L Love

MANAGING EDITOR

Candace J Akins

ASSOCIATE EDITORS

Orville Baldos, Robert D Cox, R Kasten Dumroese, Joel Gramling, Diane Haase, Heidi Kratsch, Jessica Lubell-Brand, Matthew Madsen, James Muir, Keith Pawelek, Deborah L Rogers, Larry Rupp, Daniela J Shebitz, Steven E Smith, Jean-Marie Sobze, Mack Thetford

All papers undergo peer review.

See Author Guidelines for details on types of manuscripts.

Authors are responsible for content and accuracy of their articles. All views and conclusions are those of the authors of the articles and not necessarily those of the editorial staff or the University of Wisconsin Press. Trade names are used for the information and convenience of the reader, and do not imply endorsement or preferential treatment by the University of Wisconsin or any other public agency. The University of Wisconsin is an equal opportunity and affirmative action employer and educational institution. Native Plants Journal publishes research involving pesticides, but such pesticides are not recommended. All uses of pesticides must be registered by appropriate state and/or federal agencies before they can be recommended. Pesticides can injure humans, domestic animals, desirable plants, and fish or other wildlife if improperly handled or applied. Read the pesticide label before purchasing, and use pesticides selectively and carefully. Follow label directions for disposal of surplus pesticides and pesticide containers.

CORRESPONDENCE

Manuscripts must be submitted via the Internet. See the final pages of each issue for complete author instructions or visit <http://bit.ly/npjsubs>. Address all subscription, business, back issue, bulk order, and advertising inquiries to:

University of Wisconsin Press Journals Division
728 State Street, Suite 443
Madison, WI 53706-1418 USA
608.263.0668 uwpress.wisc.edu/journals

SUBSCRIPTIONS

Subscription rates are:

Institutions

US\$ 216 print and electronic

US\$ 184 electronic only

Individuals

US\$ 76 print and electronic

US\$ 65 electronic only

Foreign postage is \$31.

PERMISSION TO REPRINT

No part of this publication may be reproduced, stored in a retrieval system, transmitted, or distributed, in any form, by any means electronic, mechanical, photographic, or otherwise, without the prior permission of the University of Wisconsin Press. For educational reprinting, please contact the Copyright Clearance Center (1.978.646.2600; 1.855.239.3415). For all other permissions, please contact permissions@uwpress.wisc.edu

PUBLISHING

Native Plants Journal is published 3 times each year (Apr, Aug, Dec) by the University of Wisconsin Press
ISSN 1522-8339 E-ISSN 1548-4785

Copyright © 2022 the Board of Regents of the University of Wisconsin System

If you are reading this letter, you are a fan of the Native Plants Journal and know the value of communicating our best ideas and research efforts. Often, the most obscure concepts turn out to have the greatest value to the largest audience. Each of us is involved in work that could benefit like-minded researchers and practitioners. We need to share. And the Native Plants Journal is a widely circulated venue—designed specifically for distributing both theoretical and practical information—for doing just that. We will deliver your communications to the people who can best utilize your knowledge.

I find that winter is my best time to sit down in a quiet space and put my finest native plant investigations into words. The seasons of busy fieldwork and hectic meetings slip into the background. I realize that not all of us live in a climate wherein snow and cold send people and plants into dormancy, but no matter where you live, winter tends to be a slower season than summer—and we can use that to advantage.

With that said, I urge you to take some time this winter to put your best ideas and work into words and submit an article to the Native Plants Journal. If you are involved in any aspect of habitat development (urban or wildland), native plant propagation, germplasm development, developing creative seed management or revegetation protocols, wildland restoration projects, or unique conservation efforts, the Native Plants Journal was created specifically for you. We will help you perfect, document, and share your best native plant handiwork. We will even publish your well-considered opinion on any native plant-related topic. So, get out your pen and start putting ideas on paper. Then access the Native Plants Journal manuscript portal online at <https://npj.msubmit.net/cgi-bin/main.plex> and initiate the publication process.

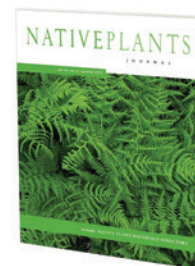
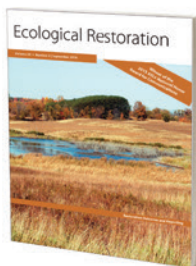
If you have ideas on a topic (and prospective author names) from which we could develop a special themed issue of the Native Plants Journal, please send an email to me (slove@uidaho.edu) and pass along the information. Our editorial team will follow up and make the appropriate contacts. Also, if you need assistance with any aspect of manuscript development or submission, please feel free to contact me.



Dr Stephen L Love
Editor-in-Chief

On the cover: Recovering burn scar near Rustler Park in the Chiricahua Mountains of southeastern Arizona in fall 2022 during an abundant monsoon season.
Photo by Stephen L Love

Environment & Land Management Journals



Ecological Restoration

The Original Restoration Publication

Edited by Steven N. Handel
ISSN: 1522-4740 | e-ISSN: 1543-4079
Published 4 times per year

Ecological Restoration is a forum for people advancing the science and practice of restoration ecology. It features the technical and biological aspects of restoring landscapes, as well as collaborations between restorationists and the design professions, land-use policy, the role of education, and more. This quarterly publication includes peer-reviewed science articles, perspectives and notes, book reviews, abstracts of restoration ecology progress published elsewhere, and announcements of scientific and professional meetings. <http://er.uwpress.org>

Land Economics

Edited by Daniel J. Phaneuf
ISSN: 0023-7639 | e-ISSN: 1543-8325
Published 4 times per year

Land Economics publishes papers related to the economics of natural and environmental resources, emphasizing conceptual and/or empirical work with direct relevance for public policy. Founded in 1925 as the *Journal of Land and Public Utility Economics*, the publication features research related to environmental quality, natural resources, housing, urban and rural land use, transportation, and other areas in both developed and developing country contexts. <http://le.uwpress.org>

Landscape Journal

Edited by James LaGro Jr.
ISSN 0277-2426 | e-ISSN 1553-2704
Published 2 times per year

The mission of landscape architecture is supported by research and theory in many fields. *Landscape Journal* offers in-depth exploration of ideas and challenges that are central to contemporary design, planning, and teaching. Besides scholarly features, *Landscape Journal* includes editorial columns, creative work, and reviews of books, conferences, technology, and exhibitions. <http://lj.uwpress.org>

NATIVE PLANTS JOURNAL

Edited by Stephen Love
ISSN 1522-8339 | e-ISSN 1548-4785
Published 3 times per year

Native Plants Journal is a forum for dispersing practical information about planting and growing North American native plants for conservation, restoration, reforestation, landscaping, highway corridors, and related uses. It includes articles that are useful to and understandable by growers and planters of North American native plants and that contribute significantly to the scientific literature. The second issue of each year includes the Native Plant Materials Directory, which provides information about producers of native plant materials in the United States and Canada. <http://npj.uwpress.org>

 THE UNIVERSITY OF WISCONSIN PRESS
JOURNALS DIVISION
uwpress.wisc.edu/journals



REFEREED RESEARCH

- Evaluating the use of woody debris to enhance native plant establishment from seeds on legacy coal mines in West Virginia (USA)
Anna M Branduzzi, Christopher D Barton, Carol C Baskin, and Allison G Davis 272

- Cutting propagation of 4 Florida native taxa of wild coffee (*Psychotria* spp.) 288

Teagan H Young, Sandra B Wilson, Mack Thetford, and James Colee

- Seedling emergence and seed production of curlycup gumweed
Derek Tilley, Mary Wolf, Derek Jolley, and Gordon Hirning 299

PROPAGATION PROTOCOL

- Germination and propagation of *Lithospermum canescens* (Michx.) Lehm., a difficult-to-grow prairie species 309

David Sollenberger, Cathy Thomas, and Louise Egerton-Warburton

GENERAL TECHNICAL

- Hypernatural Piedmont prairies: a screening process for optimum placement 324

Sean Dunlap, Brad Davis, and Jon Calabria

- Propagation for commercial production of sweet acacia (*Vachellia farnesiana*): a native plant with ornamental potential 337

Thomas P Smith IV, Sandra B Wilson, S Christopher Marble, and Jianjian Xu

- Restoration of a calcareous river floodplain in southwestern Montana, part 2: presentation of monitoring data 349

Tara Luna

- AUTHOR GUIDELINES** 362

Photo credits: (top) Polycotyledonous behavior of sweet acacia (*Vachellia farnesiana* (L.) Wight & Arn. [Fabaceae]) seedlings, photo by Thomas Smith IV; (middle) seeding depth evaluation for curlycup gumweed (*Grindelia squarrosa* (Pursh) Dunal [Asteraceae]) in 3 soil textures (fine sand, loam, and clay loam), photo by Derek Tilley; (bottom) research plots in a red spruce ecosystem (*Picea rubens* Sarg. [Pinaceae]) of West Virginia examine direct seeding of native species, with and without woody debris amendments, photo by Christopher Barton.

| | |
|---|-----|
| REFEREED RESEARCH | |
| Evaluating the use of woody debris to enhance native plant establishment from seeds on legacy coal mines in West Virginia (USA) Anna M Branduzzi, Christopher D Barton, Carol C Baskin, and Allison G Davis | 272 |
| Cutting propagation of 4 Florida native taxa of wild coffee (<i>Psychotria</i> spp.) Teagan H Young, Sandra B Wilson, Mack Thetford, and James Colee | 288 |
| Seedling emergence and seed production of curlycup gumweed Derek Tilley, Mary Wolf, Derek Jolley, and Gordon Hirning | 299 |
| PROPAGATION PROTOCOL | |
| Germination and propagation of <i>Lithospermum canescens</i> (Michx.) Lehm., a difficult-to-grow prairie species David Sollenberger, Cathy Thomas, and Louise Egerton-Warburton | 309 |
| GENERAL TECHNICAL | |
| Hypernatural Piedmont prairies: a screening process for optimum placement Sean Dunlap, Brad Davis, and Jon Calabria | 324 |
| Propagation for commercial production of sweet acacia (<i>Vachellia farnesiana</i>): a native plant with ornamental potential Thomas P Smith IV, Sandra B Wilson, S Christopher Marble, and JianJian Xu | 337 |
| Restoration of a calcareous river floodplain in southwestern Montana, part 2: presentation of monitoring data Tara Luna | 349 |
| AUTHOR GUIDELINES | 362 |

