

INVASIVE PLANT SCIENCE AND MANAGEMENT



VOLUME 17 | NUMBER 1
JANUARY–MARCH 2024

 **WSSA**
WEED SCIENCE SOCIETY OF AMERICA

<https://doi.org/10.1017/inp.2024.9> Published online by Cambridge University Press

Invasive Plant Science and Management

Published quarterly by the Weed Science Society of America

Antonio DiTommaso, *Editor*

The Weed Science Society of America (WSSA) publishes original research and scholarship in the form of peer-reviewed articles in three international journals. *Weed Science* is focused on understanding “why” phenomena occur in agricultural crops. As such, it focuses on fundamental research directly related to all aspects of weed science in agricultural systems. *Weed Technology* focuses on understanding “how” weeds are managed. As such, it is focused on more applied aspects concerning the management of weeds in agricultural systems. *Invasive Plant Science and Management* is a broad-based journal that focuses not only on fundamental and applied research on invasive plant biology, ecology, management, and restoration of invaded non-crop areas, but also on the many other aspects relevant to invasive species, including educational activities, policy issues, and case study reports.

Associate Editors (Assignment Year)

Jacob N. Barney, School of Plant and Environmental Sciences, Virginia Tech, Blacksburg, VA 24061 (2012)
Chelsea Carey, Private Restoration Consultant, Petaluma, CA 94954 (2022)
Stephen F. Enloe, Center for Aquatic and Invasive Plants, University of Florida, Gainesville, FL 32653 (2010)
Guillaume Fried, Plant Health Laboratory, Anses, 34988 Montferrier-sur-Lez, France (2017)
Catherine S. Jarnevich, US Geological Survey, Fort Collins, CO 80526 (2015)
Marie Jasieniuk, Department of Plant Sciences, University of California, Davis CA 95616 (2017)
Darren J. Kriticos, Cervantes Agritech, Canberra, ACT 2601, Australia (2010)
Elizabeth LaRue, Department of Biological Sciences, University of Texas, El Paso, TX 79968 (2022)
James K. Leary, Center for Aquatic and Invasive Plants, University of Florida, Gainesville, FL, 32653 (2014)
Kelly G. Lyons, Department of Biology, Trinity University, San Antonio, TX 78212 (2008)
Mark J. Renz, Department of Agronomy, University of Wisconsin, Madison, WI 53706 (2023)
Rob J. Richardson, Department of Crop Science, North Carolina State University, Raleigh, NC 27695 (2014)
Ryan M. Wersal, Department of Biology, Minnesota State University, Mankato, MN 56001 (2014)

Biology of Invasive Plants Series Editors

David R. Clements, Trinity Western University, Langley, BC V2Y 1Y1, Canada (2020)
Darren J. Kriticos, Cervantes Agritech, Canberra, ACT 2601, Australia (2010)

Tracy Candelaria, *Managing Editor*

Officers of the Weed Science Society of America

<http://wssa.net/society/bod/>

Invasive Plant Science and Management (ISSN 1939-7291) is an official publication of the Weed Science Society of America, 12011 Tejon Street, Suite 700, Westminster, CO 80234 (720-977-7940). It is published quarterly, one volume per year, four issues per year beginning in March.

Membership includes receipt of *Weed Science*, *Weed Technology*, *Invasive Plant Science and Management*, and the online *WSSA Newsletter*. Dues should be sent to WSSA, 12011 Tejon Street, Suite 700, Westminster, CO 80234 no later than December 1 of each year. Membership in the society is on a calendar-year basis only.

New subscriptions and renewals begin with the first issue of the current volume. Please visit the *Invasive Plant Science and Management* subscription page at <https://www.cambridge.org/core/journals/invasive-plant-science-and-management/subscribe>; Email: subscriptions_newyork@cambridge.org in USA, journals@cambridge.org outside USA.

Invasive Plant Science and Management publishes four times a year in March, June, September, and December. Annual institutional electronic subscription rates: US \$422.00; UK £294.00.

Please use Editorial Manager to access manuscript submissions (<http://www.editorialmanager.com/ipsm>). Authors are asked to pay \$65 per page as a portion of the cost of publication, plus an additional processing charge of \$55 per manuscript if none of the authors are WSSA members. The Editor can make exceptions in advance when justified.

The Weed Science Society of America fully subscribes to the belief that progress in science depends upon the sharing of ideas, information, and materials among qualified investigators. Authors of papers published in *Invasive Plant Science and Management* are therefore encouraged, whenever practicable and when state and federal laws permit, to share genotypically unique, propagative materials they might possess with other workers in the area who request such materials for the purpose of scientific research.

Invasive Plant Science and Management published by the Weed Science Society of America.

Copyright 2024 by the Weed Science Society of America.

All rights reserved. Reproduction in part or whole prohibited.

Cover Photo: Topped out Hydrilla at St. Clement Marina, Portland, CT 2020. For more information, see article by Foley et al. in this issue.
Photo credit: Greg Bugbee.



Volume 17 Number 1 January–March 2024

INVASIVE PLANT SCIENCE AND MANAGEMENT

Table of Contents

Editorial

Editorial for *Invasive Plant Science and Management*, Volume 17 Antonio DiTommaso 1

Research Articles

Early detection of *Youngia japonica* (L.) DC. (Asteraceae) in São Miguel Island, Azores, Portugal Guilherme Roxo, Luís Silva, Lurdes Borges Silva, Rúben Rego, Roberto Resendes and Mónica Moura 3

Unraveling the influence of environmental factors on fireweed (*Senecio madagascariensis*) germination and its management implications Virender Singh Hooda and Bhagirath Singh Chauhan 9

Competition reduces structural defense in an invasive thistle in the field Rachel Lamb, Joseph Keller and Katriona Shea 17

Long-term interactive impacts of the invasive shrub *Lonicera maackii* and white-tailed deer (*Odocoileus virginianus*) on a deciduous forest understory Marco U. Donoso, Hanna Leonard and David L. Gorchov 25

Population structure of three invasive congeneric teasel (*Dipsacus*) species John F. Gaskin, Natalie West and Brian G. Rector 37

Fall or spring aminopyralid applications control *Taeniatherum caput-medusae* Lisa C. Jones, Cody Beckley, Corey V. Ransom and Timothy S. Prather 46

Note

Northern hydrilla (*Hydrilla verticillata* ssp. *lithuanica*): discovery and establishment outside the Connecticut River Jeremiah R. Foley IV, Summer E. Stebbins, Riley Doherty, Nicholas P. Tippery and Gregory J. Bugbee 55