Western Society of Weed Science Newsletter

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SPRING 2021

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President's Report - by Sandra McDonald

Thank you.

Thank you for the honor and privilege of being WSWS President. Thank you for participating in the WSWS Virtual Meeting; because of the Board of Directors, Program Committee, Section Chairs/Co-Chairs, Committee Members, Discussion Section Facilitators, and poster and oral paper presenters we had a successful meeting. But what made it not only successful but memorable was that the unique spirit of WSWS and our members was evident even in the virtual format. Also, thank you for all the kind words about the meeting that you have shared with me and everyone else who worked so hard on behalf of WSWS to make the meeting a success.

Congratulations to all of our winners.

I am awed by the accomplishments, contributions, and level of service to WSWS that earned Charlie Hicks and Carl Libbey the title of WSWS Fellow. Elizabeth Mosqueda's leadership of the Diversity and Inclusion Committee earned her the Presidential Award of Merit. She will continue to serve WSWS as the Chair of the Diversity and Inclusion Committee (ad hoc). Prashant Jha is a very deserving recipient of the Outstanding Weed Scientist – Public sector. Nevin Lawrence is also a very deserving recipient of the Outstanding Weed Scientist – Early Career - Public sector. And to the recipient of the Honorary Membership, Michael Walsh. Welcome to the Westerns, I think of you as one of us.

Joshua Miranda and Mirella Ortiz were awarded the Elena Sanchez Memorial WSWS Outstanding Student Scholarship Award.

I consider our student contest to be the centerpiece of the WSWS meeting. Even in a virtual format, our students continue to set a high bar for communicating scientific information in both poster and oral formats. To learn more about the contest winners, read the article from the Student Contest Committee.

What's New.

WSWS is now active on social media. It is my pleasure to introduce Amy Giannotti as our WSWS Social Media Administrator. Her email is: **wsweedsci@gmail.com**. To learn more about Amy, read further into this newsletter.

Join us on Instagram and Twitter (@wsweedsci) and on Facebook (@Western Society of Weed Science)

We would like to reactivate the WSWS page on LinkedIn. If you have the log-in information or know who does, please share it.

Moving forward.

WSWS is a strong society because our volunteers. If you are interested in volunteering, let me know. There are opportunities to serve in a variety of capacities.

It took me awhile to recover from the virtual meeting and now I am getting excited about seeing everyone in Newport Beach in 2022. It will be the 75th WSWS Meeting. Please plan to join us.

Student Liaison Report – Jodie Crose

Hello WSWS students,

I hope this newsletter finds you all well! This past year has been full of challenges, but I must hand it to all of you who participated in this year's WSWS student contest. Despite all of adjustments from our usual routine at the annual meetings, each and every one of you did a fantastic job at updating us on your exciting findings over the last year! So big round of applause to each of you and thank you for your continued involvement in the society.

One of the adjustments for this year's virtual meeting was how the student auction was carried out. Our previous student liaison, Mirella Ortiz, organized the auction flawlessly by advertising the items online and allowing individuals to bid via a Google Doc. Pure genius! The auction successfully raised $560. In addition to this, a GoFundMe was set up for the Elena Sanchez award that received $1,770 in donations from the society. These donations are used to reward students who applied for the Elena Sanchez Memorial WSWS Outstanding Student Scholarship Program. Big thanks to everyone who contributed to the society via auction or donation. We are very lucky to be a part of such a generous society!

Next, I would like to congratulate the recipients of the Elena Sanchez scholarship award. This scholarship is a $1,000 award that is given to outstanding WSWS students who have applied. This year Mirella Ortiz and Joshua Miranda received the award. The Rita Beard scholarship was developed out of the Rita Beard Endowment Foundation that provides registration and travel to students or early career individuals specializing in invasive species who would like to attend one of the following annual academic meetings: WSWS, Society for Range Management, Western Aquatic Plant Management Society, or the North American Invasive Species Management Association. Since this year's meeting was virtual, funds from this scholarship were not awarded.

I would also like to congratulate all the student contest winners from this year's meeting. We had 13 students who received awards. In the Weeds of Range, Forestry, and Natural Areas oral contest Mirella Ortiz and Natalie Fronk took home 1st and 2nd prize, respectively. In the Weeds of Agronomic Crops oral contest, 1st place was given to Ednaldo Borgato and 2nd place to Hannah Lindell. In the Weeds of Horticultural Crops, Basic Biology and Ecology, and Teaching and Technology section, Chandrima Shyam received 1st prize and Lydia Fields took 2nd. In the poster contests, Jacob Courkamp received 1st place and Natalie Fronk received 2nd place in the Weeds of Horticulture Crops, Basic Biology & Ecology, Weeds of Range, Forestry & Natural Areas section. In the Weeds of Agronomic Crops section, Joshua Wa Miranda Teo received 1st place, Prashasti Agarwal 2nd place, and 3rd place was award to Samuel Revolinski. For the undergraduate competition, Lilian Fendler received 1st prize. Congratulations to all that participated and for those of you who won! Keep up the good work!

Throughout the next year, I get the wonderful opportunity to work with a former colleague, Grace Flusche Ogden, who is our new student liaison elect. I have worked with Grace in the past and she is full of great ideas and genuinely cares about the experience students receive through WSWS. I am looking forward to working with her to further improve the student experience within the society! If any of you have any questions, ideas or concerns throughout the next year, please do not hesitate to reach out to Grace or myself.

Finally, I would like to give a big thank you on behalf of all students to Eric Gustafson and meeting. It was great to see everyone's face again and to be a part of thought-provoking

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Student Liaison Report – CONTINUED FROM PAGE 2

conversations in the world of weed science. Last but not least, I want to especially thank our previous student liaison, Mirella Ortiz, for serving the students so well throughout the last year. She did a remarkable job trying to make our virtual meeting resemble a normal in-person annual meeting as best as possible – we even had a virtual Student Night Out! Thank you Mirella for all of your hard work!

The last year has been full of many challenges that I never would have dreamt of experiencing as we were flying home from Maui last March. Though the previous year had its difficulties, our society made it through and came together this year to share our knowledge and expertise regardless. Our society is full of generous, hard-working, talented individuals who genuinely care about one another and about sharing important information with the world around us. I am grateful to be a part of this society and look forward to serving my fellow students throughout the coming year.

Thank you all,

Jodie Crose, Student Chair
jcrose@uwyo.edu

Grace Flusche Ogden, Student Chair (elect)
gflusche@ostatemail.cokstate.edu

The Council for Agricultural Science and Technology (CAST) Individual Memberships

Would you like to help Communicate Agricultural Science Issues? Sound Agricultural Science Information is coming from CAST. I am proud and pleased with the great issue papers and commentaries that CAST has released this last year, and in previous years. I am proud to be Representing the Western Society of Weed Science as CAST Representative. I am also proud to be an Individual Member of CAST. Individual memberships in CAST start at $100 per year. Student memberships are free. There is also a discounted membership rate for recent college graduates. I hope you will join us in this effort to communicate for and about agriculture. Check it out at the CAST web-site below:

Individual Memberships

For more information about a membership in CAST, please contact me.

Greg Dahl, WSWS CAST Representative
GKDahl@landolakes.com

2022 Symposia – Carl Coburn – Education & Regulatory Chair

It's never too early to start thinking about the next annual meeting! Symposia offer a unique opportunity in our society to bring together diverse perspectives on relevant topics to our region and society. They also serve as a venue to host speakers and attract attendees to the annual meeting who may not otherwise attend. A formal call for symposium proposals will be sent out to the society before the summer, but I wanted to "plant the seed" early to encourage you to start thinking about symposium ideas. Proposals typically include justification and objectives, target audience, length and structure, special needs, proposed titles and speakers, and a tentative itemized budget. The deadline to submit symposium proposals is July 31, 2021. Do not hesitate to reach out to me at **carl.coburn@bayer.com** with any questions, and please keep an eye on your email for a formal call for proposals.

New Social Media Administrator for the WSWS

Hello!

My name is Amy Giannotti, and I wanted to take a moment and introduce myself as the new Social Media Administrator for the Western Society of Weed Science! Science communication is my passion, and I am super excited about elevating the mission and outreach for WSWS!

A little bit about me:

While I am not from the west, I love spending time visiting family and friends there. I grew up in West Virginia and earned my B.S. in biology from Marietta College (Ohio) and my M.S. in environmental sciences from the University of Virginia, with a specialty in marine ecology. In graduate school, I studied the top-down vs. bottom-up controls on macroalgae in temperate coastal lagoons.

I have spent the last 19 years in central Florida where I currently work as an environmental scientist for my own company, AquaSTEM Consulting, LLC. My 20+ years of experience in temperate and subtropical marine and freshwater systems includes work in coastal and freshwater vegetation dynamics, habitat restoration, invasive species management, impacts of nutrient enrichment, and STEM outreach initiatives.

I really enjoy communicating technical and scientific information to the general public and people of all ages through social media, cinematography with Schoolyard Films, and in public speaking engagements.

My professional service includes serving on the Advisory Board of the Center for Aquatic and Invasive Plants at the University of Florida, the Board of Directors for APMS and FAPMS, editor of the magazine *Aquatics*, and the Florida Fish and Wildlife Conservation Commission's Technical Assistance Group for Invasive Plant Management.

I love spending time in, on and underwater and I am a certified scuba diver (open water, EANx, and cavern diver), airboat pilot, outboard motor operator, and a licensed aquatics herbicide applicator in Florida. I also enjoy snorkeling, hiking, and spending time in the mountains.

How it's going:

On March 1, the WSWS's social media outreach expanded to include Twitter, Facebook, and Instagram, and I am happy to say our followers are growing! Here is a brief summary of the analytics as of April 7, 2021:

	Twitter	Instagram	Facebook
	@WSWeedSci	@wsweedsci	@Western Society of Weed Science
	400 followers	15 followers	17 followers
	135 following	63 following	9 page likes
Mar. 1-31	23 tweets	13 posts	6 new page likes
	1192 profile visits	126 accounts reached	359 people reached
	35 new followers	50 content interactions	29 engagements
Apr. 1-7	10 tweets	4 posts	1 new page like
	18 profile visits	28 accounts reached	302 people reached
	4 new followers	9 content interactions	18 engagements

How you can help:

Ideas, suggestions, and photos for content sharing are welcomed and would be most appreciated! Feel free to email me at: **wsweedsci@gmail.com**. I would love to share your

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Publications

WSWS ONLINE EDUCATION

WSSA Journals Website Online

CALENDAR OF EVENTS

Aquatic Plant Management Society Annual Meeting
July 11 – 14, 2021
New Orleans, Louisiana
www.apms.org

North Central Weed Science Society Annual Meeting
Dec. 13 – Dec. 16, 2021
Grand Rapids, Michigan
www.ncwss.org

Northeastern Weed Science Society Annual Meeting
Jan. 3 – 6, 2022
Gettysburg, Pennsylvania
www.newss.org

Southern Weed Science Society Annual Meeting
Jan. 23 - 27, 2022
Austin, Texas
www.swss.ws

Weed Science Society of America
and
Canadian Weed Science Society
Joint Annual Meeting
Feb. 21-24, 2022
Vancouver, British Columbia
www.wssa.net
www.weedscience.ca

Western Society of Weed Science Annual Meeting
Mar. 7 - 10, 2022
Newport Beach, California
www.wsweedscience.org

Social Media Administrator – CONTINUED FROM PAGE 4

professional announcements about conferences/training/workshops, stories of management and research, and just fun photos from the field! My personal photo library has very few images from western North America, so I welcome any photos of plants, treatment strategies, scenery, etc.

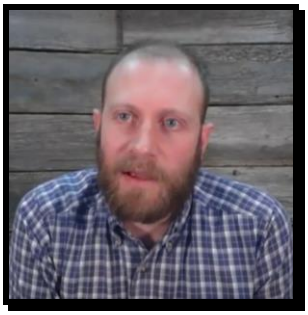
We would also like to reactivate the WSWS page on LinkedIn, but I can't seem to find who may have launched or managed that in the past. Please let me know if you have a contact for that.

And lastly, please like, follow, share, and cross-post our content to spread the word about WSWS. Raising awareness about WSWS can help increase membership and foster interest and participation in the Society.

Thank you so much, and I am looking forward to working with WSWS and meeting you all in California next year!

WSWS 2021 Professional Awards

The **Outstanding Weed Scientist – Early Career** award was granted to Dr. Nevin Lawrence, Assistant Professor at the University of Nebraska-Lincoln and the **Outstanding Weed Scientist – Public Sector** award was granted to Dr. Prashant Jha, Associate Professor & Extension Weed Specialist at Iowa State University, formerly of Montana State University.



Nevin Lawrence

Prashant Jha

Presidential Award of Merit

Elizabeth Mosqueda received the WSWS **Presidential Award of Merit** from Corey Ransom for her leadership of the Diversity and Inclusion Committee.

Fellow & Honorary Awards – Jesse Richardson, Chair

The WSWS Fellows and Honorary Member Committee is pleased to announce the Fellow Awards for 2021 were presented to Charlie Hicks and Carl Libbey. The Honorary Member Award was presented to Michael Walsh. The 2021 committee members were Jesse Richardson (Chair), Drew Lyons, and Jill Schroeder. Drew will assume the role of committee chair for 2022. Please submit nominations for the Fellow and Honorary member Awards for 2021 to Dr. Lyons by December 1, 2021 (see future newsletter announcements).

Charlie Hicks

Carl Libbey

Michael Walsh

Elena Sanchez Memorial Scholarship

Craig Alford, Awards Committee Chair announced the recipients of the "**WSWS Elena Sanchez Outstanding Student Scholarship Program**" were Mirella Ortiz (Colorado State University) – Ph.D. graduate student and Joshua Miranda (University of Nebraska) – M.S. graduate student. A big thanks to their advisors for bringing along such great promising talent for the future of weed science.

Mirella Ortiz

Joshua Miranda

2021-2022 WSWS Officers and Executive Committee

The 2021-2022 WSWS Board of Directors are: **Sandra McDonald**-President, **Joel Felix**-President-Elect, **Corey Ransom**-Past President, **John Madsen**-Secretary, **Phil Banks**-Treasurer, **D. Chad Cummings**-Constitution and Operating Procedures, **Eric Gustafson**-Business Manager, **Steve Fennimore** (Public) & **John Coyle** (Private) Members-At-Large, **Judit Barroso**-Research Section Chair, **Harlene Hatterman-Valenti** -Research Section Chair Elect, **Carl Coburn**-Education and Regulatory Section Chair, **Jane Mangold**-Education and Regulatory Section Chair-Elect, **Jodie Crose**-Student Liaison Chair, **Grace Ogden**-Student Liaison Chair-Elect, **Alan Helm**-WSSA Liaison, **Gregory Dahl**-CAST Representative, and **Lee Van Wychen**-Executive Director of Science Policy. Their contact information can be found in the sidebar sections of the newsletter.

New Podcast Focuses on the "War Against Weeds"

In a year upended by the COVID pandemic, three WSSA members specializing in extension work have found a new socially distanced way to share information. They've launched the ***War Against Weeds***, a new podcast devoted to weed management.

The mastermind behind the project is Sarah Lancaster, an assistant professor and extension weed scientist at Kansas State University. "I have childhood memories of riding in the tractor and grain truck with my dad and listening to a lot of radio," Sarah says. "I wanted to use the podcast platform to take advantage of that 'windshield time.'"

Sarah pitched the idea to two colleagues who also work in extension weed science roles – Mandy Bish at the University of Missouri and Joe Ikley at North Dakota State University. By January 2021, the three had their new *War Against Weeds* podcast up and running.

Weekly episodes have covered a wide range of topics – from the latest on herbicide resistance to tips for minimizing the weed seed bank. Weed scientists and other stakeholders from around the country have become featured guests. For example, University of Delaware extension specialist Mark VanGessel joined an episode focused on marestail/horseweed control, while Maryland producer Trey Hill of Harborview Farms joined an episode focused on cover crops.

Mandy says that regardless of the topic at hand, the goal is to present information in an authentic, conversational way that keeps the audience engaged. "Listeners not only hear about data-driven research, but also about varying experiences and perspectives – often with some laughter peppered in," she says.

Most episodes average 20-40 minutes in length and are drawing upwards of 150 listeners a week. In April as the prime growing season approaches, the team plans to move to shorter "from the field" updates on timely topics. Full-length episodes and guest interviews will return in the fall.

"There have been limited extension opportunities during the COVID pandemic, and a podcast is one way to help fill that void," Joe says. "It's also a way to extend our reach once social distancing is no longer required. We hope our audience will develop a deeper understanding of weed management and why we as extension specialists make the recommendations we make."

Want to listen?

You can subscribe to the *War Against Weeds* through your podcast provider of choice – or can listen online at **https://waragainstweeds.libsyn.com**. There is no fee. The War Against Weeds is funded by a grant from the North Central Integrated Pest Management Center (NCIPM).

2021 STUDENT PAPER AND POSTER CONTEST WINNERS

Dennis Scott – Chair

The 2021 virtual WSWS Student Contest had 20 participants in the oral presentations, divided into 3 judging sections and 16 students prepared posters broken out into 3 judging sections, including 2 individuals in the undergraduate poster section. The Student Paper Judging Committee for 2021 consisted of Dennis Scott as chair with Josh Adkins and Carl Coburn as members. We express appreciation to the additional 12 professionals that served as judges this year. Thank you, Clarke Alder, Ryan Rapp, Joel Felix, Albert Adjesiwor, Clint Beiermann, Jacob Fischer, Shannon Clark, Stacey Swanson, Andrew Kniss, Richard Zollinger, Brad Hanson and Terry Mize.

On behalf of the WSWS we thank all the students that put themselves out there and did the work to participate in this year's Student Contests. Here are the results as announced at the Business meeting Thursday morning.

Oral – Section 1-Weeds of Range, Forestry, and Natural Areas, 6 eligible participants

1st prize- Mirella Ortiz- Colorado State University
Understanding Auxin Herbicides for Aquatic Plant Management

2nd prize- Natalie Fronk- Utah State University
Considerations of Life Cycle in Invasive Mustard Management

Oral – Section 2- Weeds of Agronomic Crops, 7 participants

1st prize- Ednaldo Borgato- Kansas State University
Metabolic resistance to PPO-inhibitors in a six-way-resistant Palmer amaranth population from Kansas

2nd prize- Hannah Lindell- Oklahoma State University
Effect of Planting Date Window and Herbicide Selection on Rescuegrass (Bromus catharticus) Management in Winter Wheat

Oral – Section 3 Weeds of Horticultural Crops, Basic Biology and Ecology, Teaching and Technology, 6 participants

1st prize- Chandrima Shyam- Kansas State University
Enhanced metabolism of 2,4-D in 2,4-D resistant Palmer amaranth population from Kansas

2nd prize- Lydia Fields- Washington State University
Assessment of Light Activated Sensor Controlled Spray Technology in Eastern Washington Fallow Systems

Poster – Section 4 Weeds of Horticultural Crops, Basic Biology and Ecology, Weeds of Range, Forestry and Natural Areas, 5 participants

1st prize- Jacob Courkamp- Colorado State University
Effects of Indaziflam Treatment on Seed Bank Density and Richness in a Sagebrush-grassland Plant Community in Sublette County, WY.

2nd prize- Natalie Fronk- Utah State University
African Mustard Response to Treatment Over Time

Poster – Section 5 Weeds of Agronomic Crops, 9 participants

1st prize- Joshua Wa Miranda Teo- University of Nebraska
Palmer Amaranth Interference and Seed Production in Dry Edible Bean.

2nd prize- Prashasti Agarwal- New Mexico State University
Weed Suppression versus Water Use: Can Cover Crops be Sustainable in Water Limited Agroecosystems?

3rd prize- Samuel Revolinski- Washington State University
Genetic Architecture of Flowering Time Traits in Bromus tectorum of the Pacific Northwest

Poster – Section 6 Undergraduate Competition, 2 participants

1st prize- Liliana Fendler- Colorado State University
Constructing a Synthetic EPSPS Copy Number Variation System to Assess Fitness and Glyphosate Resistance

WASHINGTON REPORT

April 2, 2021
Lee Van Wychen

National Invasive Species Awareness Week (NISAW): Part 1

NISAW Part I was February 22-26, 2021 and included a policy focused webinar series during the week in which over 1,900 people registered. The U.S. federal agencies responsible for invasive species management in aquatic and terrestrial ecosystems, in general, have sufficient legislative authority from Congress to manage invasive species. However, federal invasive species programs remain **extremely underfunded**. In FY 2020, the Department of the Interior estimated it spent $143 million to manage invasive species for 400+ million acres of public lands. That's roughly 35 cents per acre for all invasive species research, prevention, EDRR, management and restoration. As invasive species stakeholders, we need to seek full appropriations as authorized for these programs. That was the central theme of the NISAW webinar I presented titled "Show Me the Money". The recorded presentations are available at: **www.nisaw.org/nisaw-2021/**.

National Invasive Species Awareness Week (NISAW): Part 2

NISAW Part II - Outreach and Education – is **May 15-22, 2021** and will focus on local invasive species prevention, removal, and educational events. If you are coordinating or aware of invasive weed removal or educational events, please add it **here**. The North American Invasive Species Forum is also being held virtually during NISAW Part II. The Forum is an international event encompassing the interests of professionals involved in invasive species management, research, and regulation across North America. To learn more and register for the North American Invasive Species Forum, click **here**

Regan Confirmed as EPA Administrator

Michael S. Regan (pronounced REE-gan) was confirmed by the Senate on March 10 by 66-34 vote to serve as the 15th Administrator of the U.S. EPA.

Regan is a native of Goldsboro, NC and received a B.S. in earth and environmental science at North Carolina A&T State University. He received a Master of Public Administration from George Washington University and worked at EPA from 1998 to 2008 working on air pollution issues. He then joined the Environmental Defense Fund (EDF) for eight years before being selected by NC Governor Roy Cooper in 2017 to serve as the secretary of the NC Department of Environmental Quality.

WSSA Comments on Endangered Species Act Assessments for Triazines and Glyphosate

Last fall, EPA released its draft biological evaluations (BEs) for the triazines and glyphosate for review and comment. Biological evaluations (BEs) are the beginning of EPA's Endangered Species Act (ESA) consultation review process for pesticides where they determine if an endangered or threatened species or critical habitat could be affected by the use of that pesticide.

The WSSA submitted separate comments for the **triazines** and **glyphosate**. In general, EPA's biological evaluations (BEs) lack a workable and consistent approach to endangered species assessments. An assessment process which essentially equates any exposure to a pesticide as a possible concern to any species does little to advance appropriate options which could be tailored to improve species protection. The implications of unrealistic analyses will result in unjustified restrictions on the use of both triazine and glyphosate products which remain critical weed management tools across the U.S.

The WSSA would like to thank the many weed scientists who submitted comments documenting actual use rates and patterns for these herbicides.

Science Groups Call for Increased Federal Investment in Agricultural Research

The National and Regional Weed Science Societies joined more than 130 scientific, academic, and agricultural stakeholders in urging newly confirmed USDA Secretary Tom Vilsack to increase public investment in food and agricultural research.

A **recent study** found that U.S. public agriculture R&D spending from 1910 to 2007 returned, on average, $17 in benefits for every $1 invested. However, the federal share of overall ag R&D spending as a percentage of GDP is now at its lowest point since the 1950s, and food and agriculture lags even further behind most other federal R&D areas. Additionally, other countries, including Brazil, China, and India, are investing heavily in agricultural R&D, while the United States is falling behind.

Final Appropriations for FY 2021 and Weed Science Society Requests for FY 2022

	FY19 Final	FY20 Final	FY21 Final	FY22 Request
	---------- Millions ----------			
USDA-ARS	$1,303	$1,414	**$1,492**	$1,721
USDA-NIFA	$1,471	$1,527	**$1,570**	
-AFRI Competitive Grants	$415	$425	**$435**	$600
-Hatch Act (Exp. stations)	$259	$259	**$259**	
-Smith Lever (Extension)	$315	$315	**$315**	$335
-IR-4 Program	$12	$12	**$12**	$20
-Crop Protection and Pest Management	$20	$20	**$20**	$25
USDA-APHIS: Cogongrass eradication			**$3**	$4
Army Corps- Aquatic Plant Control research	$6	$6	**$7**	$13
EPA - Great Lakes Restoration Initiative	$300	$320	**$330**	$375
DOI – Wildland Fire: Fuels Management	$189	$194	**$220**	$240
DOI – BLM: Rangeland Management	$104	$106	**$106**	$116
DOI- FWS: National Wildlife Refuge System: Wildlife and Habitat Management	$234	$239	**$240**	$250

Lee Van Wychen, Ph.D.
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Update: Classical Biological Control of Russian Olive

Sharlene E. Sing, USDA Forest Service – Rocky Mountain Research Station

Russian olive (*Elaeagnus angustifolia*), a woody invader native to southeastern Eurasia, was intentionally introduced to North America in the late 1800s for ornamental and practical purposes (e.g., windbreaks, erosion control and reclamation). The spread of Russian olive to all but 12 U.S. states and 2 Canadian provinces can be attributed in part to the distribution of plants through government wildlife habitat improvement and anti-erosion programs until the 1980s (Collier et al., 2019). Naturalized populations have been reported in the southwestern U.S. and Idaho since the 1940s (Christensen 1963). Negative effects of Russian olive are far reaching in terms of ecological and economic impacts, and management is costly (Collier et al. 2019; Sing and Delaney 2016b).

In 2014 I co-chaired with Dr. Kevin Delaney a two-day symposium to ascertain the feasibility and acceptance of a proposed program for classical biological control of Russian olive. We hoped the symposium would facilitate productive dialogue amongst researchers, policy makers, stakeholders and resource managers to identify and mitigate conflicts of interest associated with the management of Russian olive. Nowhere were those conflicts more apparent than during first-person accounts given by land managers whose efforts to implement conventional control of Russian olive met with considerable and understandable resistance (Sing and Delaney, 2016b). Landowners in arid high plains locations where few if any native tree species thrive depend on Russian olive for use in shelterbelts and as ornamental plantings, and hunters value this species as an important food source and shelter for game species (Sing and Delaney 2016a, b). Adverse impacts of Russian olive on ecosystem function and services provide an equally compelling argument for management (Collier et al. 2019; Sing and Delaney 2016b).

Fast-forward seven years: a petition for the U.S. field release of the first candidate biocontrol agent for Russian olive is currently moving through the final stages of review. During those seven years, Russian olive infestations in the Northern Rockies have exploded, along with the expense of management (Katz et al. 2020). Negative impacts of Russian olive, already numerous and far-reaching, have also expanded. Last summer we saw large stands of Russian olive in eastern Montana that had been significantly defoliated by grasshoppers (see photos below). At first glance this might seem like a great thing – basically free biocontrol. But consider that for the small cost of defoliation without much lasting effect, Russian olive allowed swarms of grasshoppers to live longer, reproduce more, and spread farther, increasing the risk of crop and forage losses.

Russian olive trees defoliated by grasshoppers, Eastern MT, summer 2020.

Grasshoppers on defoliated Russian olive trees.

Grasshopper feeding damage on Russian olive leaves.

Photos by Sharlene E. Sing, USDA FS RMRS

The candidate agent currently being petitioned for North American field release is the highly host specific eriophyid mite, *Aceria angustifoliae* (Weyl et al. 2019). Mite attack on the flowering shoots of Russian olive initially elicits a response in the tissues of the leaves and subsequently, as they become available, in the flower buds, distorting both into non-lignified galls that serve as the primary food source and shelter for developing mite progeny (see photo). This agent was selected because by reducing the propagule load it helps to staunch the supply of additional seeds to existing infestations and the spread of Russian olive into uninvaded areas, without negatively impacting the appearance or function of existing plants used for ornamental or windbreak purposes. Next steps will be with private and agency stakeholders to identify potential Russian olive biocontrol release sites with closely related, nontarget native plant species present where monitoring plots can be established and pre-release data can be collected, pending approval for release of a biocontrol agent.

Aceria angustifoliae damage on the shoot tips of Russian Olive. Photo by Philip Weyl, ©CAB International

*Co-chairs of the North American consortium for biological control of Russian olive are Dr. Tim Collier, University of Wyoming (**T.Collier@uwyo.edu**) (USA), and Dr. Rosemarie De Clerck-Floate, Agriculture and Agri-food Canada (**rosemarie.declerck-floate@canada.ca)(Canada**). Dr. Phil Weyl is the lead scientist on biocontrol efforts against Russian olive at CABI Switzerland (**P.Weyl@cabi.org**).*

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Committee Seeks Assistance with the History of the WSWS

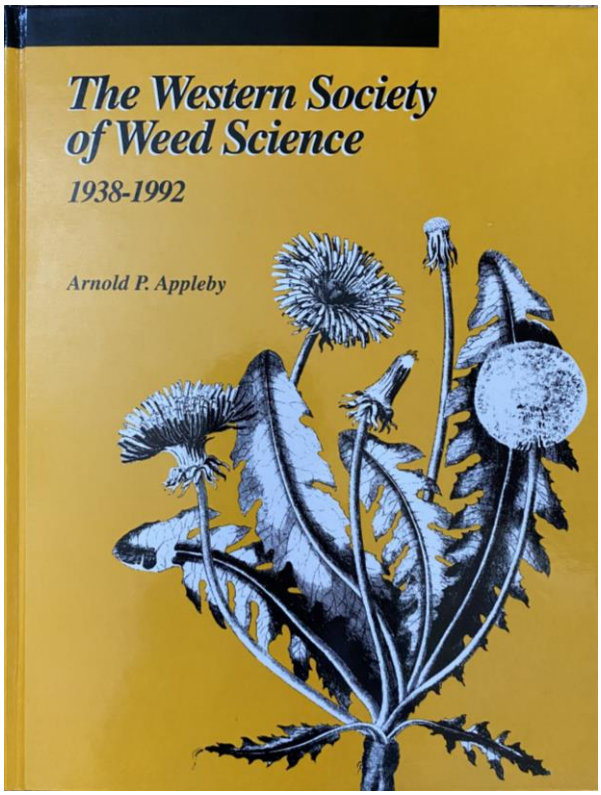
In 1993 a history of the Western Society of Weed Science (WSWS) 1938 through 1992 written by Dr. Arnold Appleby was published as a hard back book. The Western Society of Weed Science was originally called the Western Weed Control Conference from the first meeting in 1938 until 1968 when the name was changed to WSWS. In the history of WSWS Dr. Appleby summarized the proceedings for each meeting 1938-1992 (although there was no meeting in 1943) along with information about each member inducted as a Fellow of the society, Honorary members and "Founders". We have an illustrious history as WSWS was the first regional weed science society (1938) in the U.S. which began prior to the formation of the Weed Science Society of America (WSSA, first called the Association of Regional Weed Control Conferences) in 1949.

At the annual meeting this year (2021) it occurred to me that much has happened of significance during the past 28 years and that it would behoove our society to update our history. An ad hoc committee was formed with permission of the Board of Directors to update the history of WSWS 1993 through 2021. The objective is to create one WSWS history (electronic version) to include a scanned copy of Dr. Appleby's book and with additional information from meetings 1993 to 2021.

Thanks to Phil Banks (current Treasurer, former Business Director 2007-2017, President 2005-2006, Fellow), Rod Lym (President 1998-1999, Fellow), Don Morishita (President 2000-2001, Fellow) and Eric Gustafson (current Business Director) in agreeing to undertake this effort with me. If you are so inclined and would like to share any reminiscences of past WSWS meetings with this committee, we would be pleased to read them and perhaps include them in the updated history. You can send them to any one of the committee members (email addresses are in the membership directory on the WSWS website).

We hope to complete this updated history by the next annual meeting (hopefully that will be in-person!).

Vanelle Peterson, President 2011-2012 and Fellow



Note from the Business Office – Eric Gustafson

The 2021 WSWS Annual Meeting was a joint meeting with the WAPMS in March, 2021.

The impacts of Covid required that WSWS host the Annual meeting in a virtual platform this year and I feel it was a great success due to the work of Dr. Sandra McDonald – Program Chair and her committee. The committee worked diligently to include all the aspects of the in-person meeting that has been so successful over the years and we were able to include the discussion sessions and roundtables to all the sections. Attendance was very strong and hosting the meeting with our partners in the WAPMS proved to be successful for both. We all miss the opportunity to meet in person and interact with our friends and colleagues in a more normal way – we are hopeful the 2022 meeting in Newport Beach will be a chance to re-connect with those we may have missed in the virtual world in 2021.

If you were not able to attend the Annual Meeting or need to update your membership, please log in to your account and pay your dues for 2021. We are available in the office to assist as well – (303) 327-8016. To send a check, simply fill out the Membership Form at the end of the newsletter and send that in with the check for $30.00.

2021 Membership Renewal Form

To pay by credit card, please go to *www.wsweedscience.org*
and login to your account

IF YOU DID NOT ATTEND THE ANNUAL MEETING BUT WANT TO REMAIN A MEMBER, FILL IN THE INFORMATION BELOW AND SEND $30.00 FOR DUES TO THE ADDRESS GIVEN.

Last name First name Affiliation

Mailing address City State Zip code

Phone # w/area code e-mail address

Classification: Student ___ University ___ Federal Agency ___ State Agency ___
Private Industry (manufacturing and sales) ___ Private Industry (consulting) ____
Unemployed ____ Retired ____ other (specify) _____

Send to: WSWS/IMI,
12110 Pecos St., Ste 220,
Westminster, CO 80234

Questions? info@wsweedscience.org or (303) 327-8016

Publications Available from the WSWS

The following books or DVDs can be purchased from the WSWS:

Aquatic and Riparian Weeds of the West
Weeds of California and Other Western States
Interactive Encyclopedia of North American Weeds DVD
Weed Bingo

All publications can be ordered online at **WSWS Bookstore**. Contact the Business Manager (Eric Gustafson) at (303) 327-8016 for bulk order prices.

WSWS Objectives

- ❖To foster and encourage education and research in weed science.
- ❖To foster cooperation among state, federal and private agencies in matters of weed science.
- ❖To aid and support commercial, private and public agencies in the solution of weed problems.
- ❖To support legislation governing weed control programs and weed research and education programs.
- ❖To support the Weed Science Society of America and foster state and regional organizations and agencies interested in weed control.

Western Society of Weed Science
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